RETHINKING INCLUSIVE AND SUSTAINABLE EDUCATIONAL DEVELOPMENT FOR MOKEN CHILDREN

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จุฬาลงกรณ์มหาวิทยาลัย
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การปรับมุมมองการพัฒนาการศึกษาที่ทั่วถึงและยั่งยืนสำหรับเยาวชนมอแกน

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เจสัน แซงเลียร์ : การปรับมุมมองการพัฒนาการศึกษาที่ทั่วถึงและยั่งยืนสำหรับเยาวชนมอแกน. (

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MOKEN CHILDREN) อ.ที่ปรึกษาหลัก : อ.นฤมล อรุโณทัย

      เด็กชนเผ่าพื้นเมืองในประเทศไทยจำนวนมากยังถูกทิ้งให้ล้าหลังในระบบสามัญศึกษา แม้ว่าจะมีความพยายามเพิ่มพูนโอกาสในการศึกษาที่เท่าเทียมกันก็ตาม งานชิ้นนี้ดำเนินการศึกษาเพื่อทำความเข้าใจ วิเคราะห์สถานการณ์และจุดอ่อนของการศึกษาเด็กชาวเลมอแกนในภาคใต้ของประเทศไทย และค้นหาว่าทำไมเด็กเหล่านี้จึงไม่ประสบความสำเร็จในระบบสามัญศึกษา งานนี้ใช้วิธีการเรียนรู้แบบท้องถิ่นโดยเฉพาะการเรียนรู้ในธรรมชาติและโดยธรรมชาติเป็นฐานคิดในการทำความเข้าใจเรื่องการศึกษาเด็กชาวเลและเด็กชนเผ่าพื้นเมืองอื่นๆ วิธีการเก็บข้อมูลใช้การ สัมภาษณ์ครู เจ้าหน้าที่องค์กรพัฒนาเอกชนที่ทำงานเกี่ยวกับเด็กและการศึกษา นักวิชาการ สมาชิกชุมชนที่มีทั้งเด็ก ผู้ใหญ่ และผู้อาวุโส นอกจากนี้ ในช่วงที่ลงศึกษาภาคสนาม ยังใช้วิธีการสังเกตกิจกรรมในชุมชน และสังเกตเด็กมอแกนขณะที่เรียนในโรงเรียนหรือศูนย์การเรียน ผลการศึกษาพบว่ายังมีช่องว่างระหว่างนโยบายการศึกษาที่เปิดกว้างมากขึ้นกับการปฏิบัติจริงในประเด็นของ "การให้ความสำคัญและโอกาสกับเด็กทุกคน" (inclusiveness) ในระบบสามัญศึกษา เด็กชาวเลมอแกนและเด็กชนเผ่าพื้นเมืองอื่นๆ ยังถูกทิ้งให้ล้าหลังอยู่ทั้งที่มีการปรับปรุงแนวทางการศึกษา และโอกาสของอนาคตที่เกิดขึ้นจริงกับที่คาดหวังนั้นยังแตกต่างกัน การทบทวนเรื่องกระบวนการขับเคลื่อนศึกษาทางเลือกในประเทศไทย โดยเฉพาะอย่างยิ่งในศูนย์เรียนรู้ในชุมชนชาวเขาหลายแห่งสะท้อนให้เห็นหลักสูตรที่ก้าวหน้าและวิธีการเรียนการสอนที่ไม่ได้เป็นแบบอนุรักษ์นิยม รวมทั้งยังให้คุณค่าแก่ภูมิปัญญาด้านนิเวศนเผ่าพื้นเมืองเป็นอย่างมาก ศูนย์การเรียนของเยาวชนมอแกนแห่งหนึ่งและโรงเรียน 2 โรงเรียนที่มีแต่เด็กชาวเลเรียนอยู่มีหลักสูตรหรือวิชาที่ส่งเสริมเรื่องการเรียนรู้แบบลงมือทำจริง เน้นทักษะชีวิต และการดำรงชีพ การศึกษานี้นำเสนอแนวคิดทางเลือกเกี่ยวกับการศึกษาเพื่อความยั่งยืนและการศึกษาแบบที่ให้ความสำคัญและโอกาสกับเด็กทุกคนภายใต้บริบทของการศึกษาในประเทศไทย จุดเน้นอยู่ที่ปฏิบัติการถ่ายทอดความรู้ท้องถิ่น ซึ่งจะช่วยเชื่อมช่องว่างระหว่างนักเรียนชาวเลมอแกนและระบบการศึกษาในปัจจุบัน เพื่อให้หลักสูตรนั้นสัมพันธ์กับชีวิตจริง แม้ว่างานนี้จะเน้นเรื่องชาวมอแกน แต่ข้อค้นพบและบทสรุปจะครอบคลุมและมีนัยสำคัญต่อนักเรียนชนเผ่าพื้นเมืองอื่นๆ ในประเทศไทย

สาขาวิชา	สิ่งแวดล้อม การพัฒนา และความยั่งยืน	ลายมือชื่อนิสิต ....
ปีการศึกษา	2561	ลายมือชื่อ อ.ที่ปรึกษาหลัก ....

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Despite numerous education readjustments, efforts for equal opportunity in education, and an increase in present enrollment, many indigenous children in Thailand continue to fall behind in the formal education system. This study focuses on the Moken Chao Lay (sea people) communities in southern Thailand and looks to analyze and understand situations and shortcomings of Moken children's education and why they are still underperforming in the formal education system. Traditional ways of knowing, especially knowing through nature, are used as a platform to rethink the way we look at indigenous children's education in Thailand. Interview data was collected from school teachers, NGOs staff working on children and education, and academics on Moken and other indigenous peoples' issues as well as from Moken students, community members, and elders in the communities. In addition, observation of Moken daily activities and Moken children in school/learning centers was made during each field trip. The results showed a gap between a wider open policy and practices when it came to "inclusiveness" in formal education, and that Moken and other indigenous learners were still being left behind despite educational readjustments with actual opportunities not matching the perceived opportunities. The review of alternative education movement in Thailand, especially in learning centers in several hill-tribe communities, reveals progressive curriculum and unconventional teaching methods that place a high value on indigenous ecological knowledge. One Moken learning center and two curriculums found in Moken-only schools under this study encourage hands-on learning style, life skills and livelihood skills. This study identifies alternate approaches to sustainable and inclusive education for Moken children in the Thai education context. Traditional practices of knowledge transmission are looked at to help bridge the gap between Moken learners and the formal education system in order contextualize and make relevant the curriculum that is taught. While this study only focuses on the Moken, findings and conclusions may be drawn to encompass a larger scope in terms of implications for other indigenous learners in Thailand.

| Field of Study: | Environment, Development and Sustainability | Student's Signature .... |
| Academic Year: | 2018 | Advisor's Signature .... |

ACKNOWLEDGEMENTS

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CHULALONGKORN UNIVERSITY

List of abbreviations

AEN – Alternative Education Network

AIPP – Asia Indigenous Peoples Pact

CRC – Convention on the Rights of the Child

CUSRI – Chulalongkorn University Social Research Institute

EFA – Education for All

FAL – Foundation for Applied Linguistics

HRW – Human Rights Watch

ILO – International Labour Organization

IMPECT – Inter Mountain Peoples' Education and Culture in Thailand Assicuation

IP – Indigenous peoples

NGO – Non-governmental organization

UN – United Nations

UNDRIP – United Nations Declaration on the Rights of Indigenous Peoples

UNESCO - United Nations Educational, Scientific and Cultural Organization

MDG – Millennium Development Goals

MOE – Ministry of Education

MTB-MLE – Mother tongue-based multilingual education

SDG - Sustainable Development Goals

Chapter 1: Introduction

1.1 Rationale and statement of the problem

Enrolment numbers have long been the benchmark by which the success of national education policies and reforms are determined. And while it is true that in many developing countries, enrolment and literacy rates are on the rise, this may not be telling the whole story. Overall numbers do paint a positive picture for countries pursuing the goal of equal and quality education for all, but persistent inequalities remain. Figures still show low enrolment rates, poor academic performance, and high drop-out rates among indigenous children (Larsen & Labour, 2003). This may not be a case of children failing in the education system, but rather, the education system failing the children.

The Thai government made a commitment to provide basic education to all children including non-Thai indigenous children, and this commitment is inscribed in various laws, including the 1999 Education Act that guarantees that all children, without discrimination, receive quality education ("National Education Act of B.E. 2542," 1999). In affirming this fundamental human right on education, Thailand continues to strive for the realization of the United Nation's Sustainable Development Goal 4 which is to "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all." In 2016, Ban Ki-moon the UN Secretary-General at the time stated on August 9, the International Day of the World's Indigenous Peoples, that "We will not achieve the Sustainable Development Goals if we fail to address the educational needs of indigenous peoples."

Despite these reforms, indigenous children are still being left behind by a fully centralized formal education system. The disparity between rural and urban learners is evident, and will continue to be so as long as the education system fails to take into

account their different backgrounds and needs (OECD/UNESCO, 2016). An example of this can be seen in the news, where Phuket city officials are clamping down on Moken school-age children begging on the streets near Rawai pier. The Mayor of Rawai cites social issues, among others, as the reason why many of these children are not in school: "These children do not have the courage to go to school because some of them are bullied, or have a different physical appearance, like dark skin or curly hair" (Riva, 2017). For children that drop out early from school, not many short-term or long-term options are available that will ensure a good and safe future. Many then resort to begging or unskilled labor.

Even with the increased access for children of indigenous peoples to gain a formal education, there are numerous drawbacks. For cases like the one mentioned above, education is not as simple as dropping a child into a classroom and expecting them to learn. In an education system that promotes the assimilation of indigenous children into mainstream Thai culture, the children stand to lose their cultural identity, indigenous knowledge, and even their language. There are many factors at play which in the long run could be detrimental rather than beneficial to the children. It is important to be sensitive to the backgrounds and cultures of those involved. It is also important to not only provide a formal education, but also to provide room for cultural diversity while at the same time embracing and developing traditional knowledge (Singh, 2011).

Developing tailored, culturally and linguistically appropriate education programs for indigenous learners should be a priority. The problem with a mainstream education is that children of indigenous peoples may not get the same benefits from a mainstream education as do Thai children. Even with a mainstream education, indigenous peoples find it harder to get jobs, and their education seldom leads to significant contributions to life in their community. In seeking out avenues such as indigenous education to enhance the future prospects of indigenous peoples, specific needs of indigenous

peoples need to be addressed in order emphasize and broaden the scope of discussion with a view to achieving quality education for all (King & Schielmann, 2004). Thailand's National Education Act of B.E. 2542 (1999) actually provides space for communities to explore this alternative education in the form of "providing education and training; searching for knowledge, data, and information; and be able to benefit from local wisdom and other sources of learning for community development in keeping with their requirements and needs" However, no further support or funding is given beyond that stipulation found in Section 29.

For this particular study, the Moken are chosen because they are a group of indigenous peoples who by and large still hold on to relatively "traditional" livelihoods and have ties to the marine environment. The other two Chao Lay (coastal indigenous peoples who pursue a marine livelihood) subgroups, the Moklen and the Urak Lawoi, have become more sedentary, settling in and around Thai towns, absorbing mainstream Thai society and culture, and also adapting formal schooling for their children. For the Moken however, their communities still remain relatively traditional, and those living in the community on Surin Islands especially have been able to keep their culture and way of life from being diluted (Narumon Arunotai, 2006). The challenge that will be addressed is focused on the need to provide quality education to their children while being able to hand down the traditional wisdom and knowledge from within the community. While this study only focuses on the Moken, findings and conclusions may be drawn to encompass a larger scope in terms of implications for other indigenous learners in Thailand. To tackle "indigenous children" as a whole in the context of this particular research would require a much larger scale as Thailand is home to some 62 ethnic minorities and communities (UN, 2011). These includes every ethnic and indigenous group from the "chao khao" hill tribes in the North to the "chao lay" sea people in the South. As per the Thai government's definition, "minorities" are most recently defined as: "Ethnic Group (which includes the different Tai ethnic groups) according to the definition in this Government Operations Handbook means

people of other races or nationalities that live among other peoples who are larger in number. This may include groups of people without Thai nationality, who have their own distinct cultures and traditions and who have entered or lived in Thailand in different ways" (UN, 2011).

1.2 Research questions and hypothesis

Despite the effort for equal opportunity in education and present enrolment, why do indigenous peoples children, especially the Moken children, continually fail to excel and advance to higher education?

Hypothesis: Access to equal opportunities in education is not enough for Moken children's education in terms of cultural survival and sustainable development. An alternate paradigm of education is needed that rethinks the components of education:

1) teachers/facilitators/resource persons/elders

2) content/curriculum/knowledge/stories/ etc.

3) learning places

4) ways of learning/transmsion of knowledge/indigenous peoples ways of knowing

5) communities

6) worldviews

1.3 Objectives

This research is aiming to:

a) Analyze and understand situations and shortcomings of Moken children's education in Thailand

b) Explore Moken ways of knowing as a way to rethink about indigenous children's education in Thailand.

c) Identify alternative approaches to sustainable and inclusive education for Moken children in Thai education context.

1.4 Operational definition

Children: As per the United Nations Convention on the Rights of the Child, a child means every human below the age of eighteen (UN General Assembly, 1989).

Adults: Adults will be referring to every human above the age of 18

Indigenous people: As the formal definition of "indigenous people" remains a matter of debate, the researcher will use the most widely cited "working definition" of indigenous peoples:

> Indigenous communities, peoples and nations are those which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing on those territories, or parts of them. They form at present non-dominant sectors of society and are determined to preserve, develop and transmit to future generations their ancestral territories, and their ethnic identity, as the basis of their continued existence as peoples, in accordance with their own cultural patterns, social institutions and legal system (UN General Assembly, 2007).

Ethnic group: As per the Thai government's definition, the term "ethnic group" will refer to people of other races or nationalities that live among other peoples who are larger in number. This may include groups of people without Thai nationality, who have their own distinct cultures and traditions and who have entered or lived in Thailand in different ways (UN, 2011)

1.5 Relevance

Low educational attainment among the children of indigenous peoples is not a new issue, nor is it one that is unique to Thailand. However, it certainly is an issue that deserves more attention as it is increasingly worrying that the marginalized fall further and further behind in a system that on paper, should lift them up. In a virulently nationalistic nation, where the concept of "Thainess" is ingrained and instilled at a young age, there is a need to allow space for diversity. It is imperative to acknowledge and accept the "others" in society, so that indigenous children will not have to study a curriculum and history books in which they are invisible. For far too long, indigenous peoples in Thailand have lived the life of second-class citizens, meekly accepting the role of scapegoat, destroyers of nature, and numerous others that have been labeled to them. As they have no voice, it is difficult to refute such claims. Education is a means by which they can be brought up to have a voice, to regain their dignity, and to be instilled with the knowledge that they matter. This research is relevant to Thailand's education policy makers and the affected indigenous communities, as well as for providing a base for future researchers in that field. It aims to do so through reconsidering the education of indigenous children education in Thailand through the studies of Moken children, and alternative approaches to sustainable and inclusive education for Moken children in Thailand, together with implication for indigenous children's education.

1.6 Research Framework

Figure 1
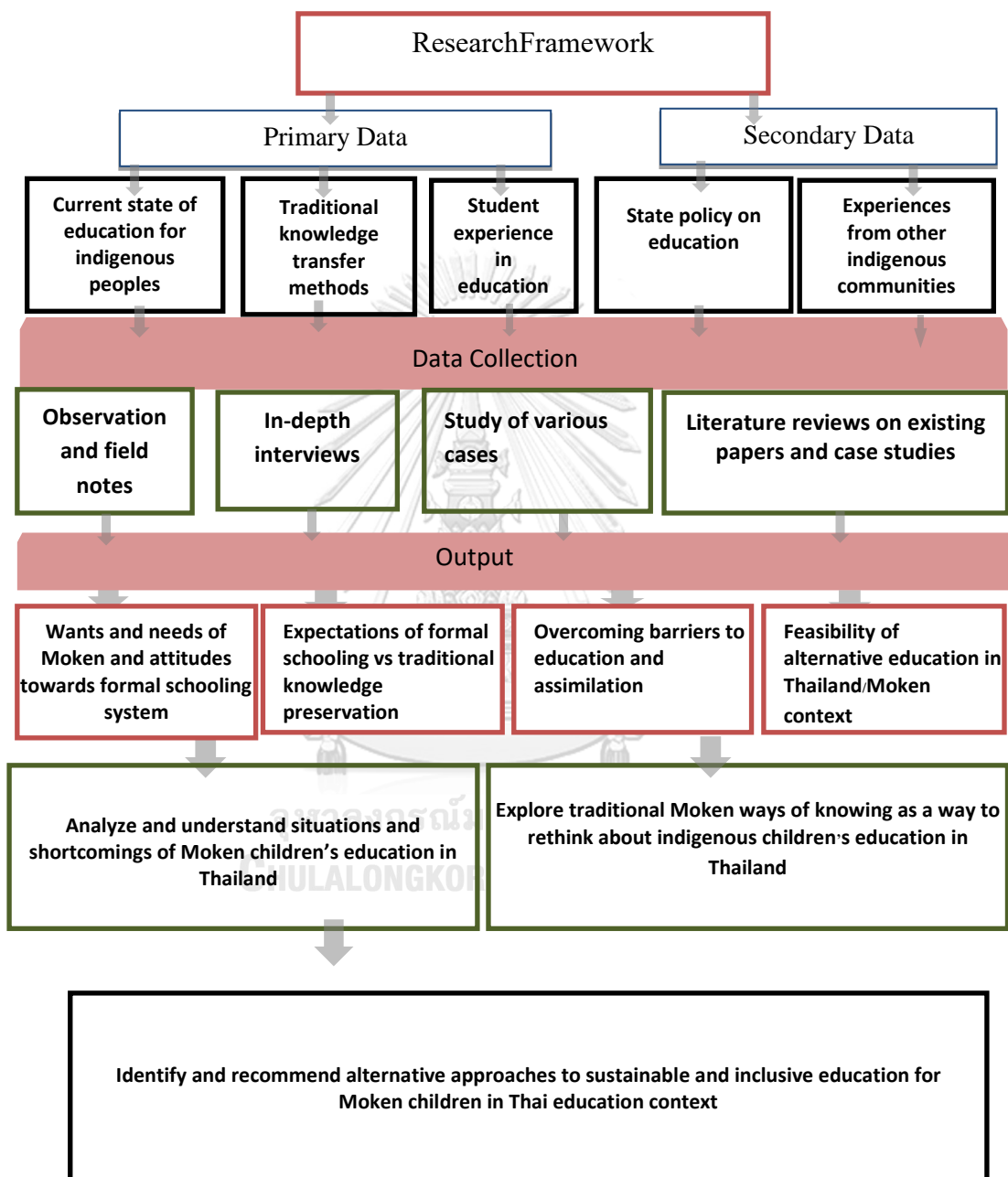
Chapter 2: Literature review

In rethinking the education of Moken children in the context of sustainable development and equal education for all, it is imperative to review the historical and political background of education, both within Thailand and across the globe. It is also important to review the background and present situation of the Moken as the primary stakeholders in this research. Their story is one that is unique but at the same time, shares similarities with marginalized groups of indigenous people around the world.

Education has long been linked to development, both socially and economically. It has been used as a vehicle of change and then control over the years, but what role does it play in today's sociopolitical context and how do those on the fringes of society fit into the rhetoric? International conferences and treaties on indigenous people's right to education and their results are reviewed. While the discourse on education rightly touts it as a beacon of hope and the way towards development, questions are being raised as to whether education in its current state really is accessible and beneficial to every child in the system. With the gap widening between indigenous and non-indigenous learners, it is worth taking a look at the educational system in order to ascertain where it is falling short in meeting the needs of indigenous students. Educational policy and reforms may look good on paper, but there is no point in continuing the rhetoric on Sustainable Development if the development aspect is not taking place at the ground level. Only once we are able to ensure that no one is being left behind can we look to helping learners acquire the knowledge and skills needed to promote sustainable development. Alternate pedagogies and approaches to knowledge transfer within indigenous communities are reviewed, as are several case studies of indigenous communities taking responsibility for their schooling through alternative education.

2.1 Concepts of indigenous peoples rights to education

Ever since the United Nations Millennium Declaration in which the Millennium Development Goals (MDG) were ratified, the agenda of Education for All has been pushed by countries and organizations around the world. Goal 2 of the United Nation's Millennium Development Goals was to "To ensure that, by the same date (2015), children everywhere, boys and girls alike, will be able to complete a full course of primary schooling and that girls and boys will have equal access to all levels of education" (UN General Assembly, 2000).

Many countries worked towards improving the rights and access to education for their people as a result of the MDGs and great progress has been made. However, this progress has not benefitted all learners equally. While huge strides forward have been made, marginalized groups are being left behind (IASG, 2014). Many challenges and obstacles remain in ensuring quality basic education for all, and indigenous children's access to education continues to be constrained. The reasons are numerous; limited educational budgets, too few schools, low quality of education, distance children have to travel to school, and negative public sentiment towards indigenous children (H.R.W., 2015).

Indigenous and Tribal Peoples Convention – C169 (1989)

The Indigenous and Tribal Peoples Convention was another milestone that helped further the cause for education of indigenous peoples. The International Labour Organization (ILO) is a specialized agency of the United Nations. In 1989 the ILO Indigenous and Tribal Peoples Convention No. 169, an international treaty, was adopted by the International Labour Conference of the ILO. It came as a response to growing momentum for the rights of indigenous peoples to self-determination and decolonization to be recognized. This was the precursor the United Nations

Declaration on the Rights of Indigenous Peoples that was later adopted in by the UN General Assembly in 2007.

The ILO Convention 169 was an important step in getting countries to constitutionally recognize the rights to education, language, and culture of indigenous peoples. Highlighted also was the need for culturally and appropriate education for indigenous peoples as well as the importance of indigenous languages. This was one of the first times attention was brought to the need for educational reforms regarding indigenous peoples's education and mother-tongue instruction and it served as the cornerstone of the international framework on the rights of indigenous peoples.

Education was specifically addressed in 'Part VI – Education and Means of Communication' and states in Article 26:

> Measures shall be taken to ensure that members of the peoples concerned have the opportunity to acquire education at all levels on at least an equal footing with the rest of the national community (ILO, 1989).

The convention required states to combat prejudices among their non-indigenous citizens including fairly and accurately portraying the indigenous societies and cultures. This is specified in Article 27.1 of the Convention:

> Education programmes and services for the peoples concerned shall be developed and implemented in co-operation with them to address their special needs, and shall incorporate their histories, their knowledge and technologies, their value systems and their further social, economic and cultural aspirations (ILO, 1989).

Even with these developments in legislation and awareness, there was still much to do in regards to putting the policy into practice.

The Convention on the Rights of the Child (1989)

In the same year as the ILO Convention 169, another major treaty that took place was
the Convention on the Rights of the Child (CRC). The most rapidly and widely ratified
international human rights treaty in history, The Convention on the Rights of the
Child is a legally-binding international agreement that set out the civil, political,
economic, social, health and cultural rights of children. It was ratified in 1989 and
consists of 54 articles defining children's rights and steps governments should take to
make them available to all children. Since its adoption by the UN in 1989, 194
countries have signed up to it and are thus bound by international law to guarantee its
implementation. The CRC defines the term 'child' is as being a person below the age
of 18. Education is a theme that comes up again, and here the right to free primary
education is fortified in Article 28. It's in Article 30 that education and indigenous
children are addressed:

> Article 30 (Children of minorities/indigenous groups): Minority or indigenous
> children have the right to learn about and practice their own culture, language
> and religion. The right to practice one's own culture, language and religion
> applies to everyone; the convention here highlights this right in instances
> where the practices are not shared by the majority of people in the country(UN
> General Assembly, 1989).

A culturally and linguistically appropriate approach to education especially among
indigenous peoples is essential and involves not only the youth, but also the elders
and knowledge-holders of the community working hand-in-hand with the education
system. This will support marginalized groups and indigenous peoples as it will serve
to reinforce their identity and the value of their culture. It can also serve to bridge the
gap between generations as cultural practices are revitalized and knowledge is passed

down to the younger generation (IASG, 2014). A sense of pride in one's own culture and traditional belief systems may even be cultivated. At the community level, the bonds between the youth and the elders in the community will be strengthened.

United Nations Declaration of the Rights of Indigenous Peoples (2007)

On September 13, 2007 the UN General Assembly adopted the United Nations Declaration on the Rights of Indigenous Peoples. This followed more than twenty years of discussion within the UN system. Indigenous representatives played a key role in the development of this declaration. The indigenous people of Africa, the Americas, Asia, Europe and the Pacific are among the most impoverished, marginalized and frequently victimized people in the world. This universal human rights instrument is celebrated globally as a symbol of triumph and hope. While it is not legally binding on states, and therefore does not impose legal obligations on governments, the declaration carries considerable moral force. Effective implementation of the declaration would result in significant improvements in the global situation of indigenous peoples.

The text of the declaration recognizes the wide range of basic human rights and fundamental freedoms of indigenous peoples. Among these are the right to unrestricted self-determination, an inalienable collective right to the ownership, use and control of lands, territories and other natural resources, their rights in terms of maintaining and developing their own political, religious, cultural and educational institutions along with the protection of their cultural and intellectual property(UN General Assembly, 2007).

Articles 12, 13, and 14 ensure that indigenous communities fully enjoy the right to education. With a more specific scope than the ILO Convention 169, Article 14.3 states:

States shall, in conjunction with indigenous peoples, take effective measures, in order for indigenous individuals, particularly children, including those living outside their communities, to have access, when possible, to an education in their own culture and provided in their own language(UN General Assembly, 2007).

2.2 Concepts of sustainable development and social inclusion with regards to indigenous peoples' education

Social inclusion

An important aspect of social development is putting the people into the main focus of any measures. From 1990 on the importance of social development has been acknowledged more and more as an important factor of broader development results, especially in the context of economic growth that is sustainable as well. Nevertheless, data for international comparative research is still showing limitations in regards of collection in general, as well as in quality in order to allow a more reliable comparison between the countries. The International Institute of Social Studies (ISS) is hosting the Indices of Social Development (ISD) which collects as much 200 single indicators, and an important part of that parameter is about the inclusion of minorities. This is used to measure the discrimination against vulnerable groups, such as migrants, indigenous people, refugees and alike and measure their access to jobs and education(ISS, 2017). This index can be used to determine the levels of discrimination, if existing, to which the Moken indigenous children are exposed to – as this index measures on an international level their situation can be compared to other indigenous populations in the world and it also has its relevance in measuring the improvement when implementing new learning and teaching methods and approaches.

The aspect of culture and educational attainment in indigenous children and young adults is still under-represented in the policy making on education. In the EU for example the right to education is taken seriously and a recent study has resulted in

recommendations to better integrate indigenous children and promote education as an important tool for better inter-cultural understanding between indigenous and non-indigenous people. Such would be a) bilingual kindergartens b) no sole focus on schooling itself but the intercultural factors in the children's environments are important c) exposing the indigenous child to the mainstream culture while supporting the native and official language d) command of the official language should be a bridge to a multicultural society e) clarity of legislation on bilingualism (Malloy & Gazzola, 2006).

Bilingual Education: Experiences learned

Learning in another culture and language is slower than learning in your mother tongue and culture. One model that has been used in approaching the challenge posed by indigenous education is intercultural bilingual education. This model has been employed in various degrees throughout Latin America, the United States, Canada, New Zealand, and Australia. The mindset behind this is more than just the recognition of multiple cultures in a society, but rather to promote and implement cross-cultural understanding and integrate the various languages and ways of knowing found in those cultures (King & Schielmann, 2004). UNESCO is a proponent of intercultural education as it promotes a respect for cultural and linguistic diversity and helps towards eliminating discrimination through increasing the understanding between different groups in a population.

> "The choice of the language...is a recurrent challenge in the development of quality education... Speakers of mother tongues, which are not the same as the national...language, are often at a considerable disadvantage in the educational system..." (UNESCO, 2003)

The hope is that through the recognizing and valuing of diversity in culture, language, and knowledge systems, equal opportunities will be provided for education for all, and that there will not be a hierarchy created that puts a set of languages and knowledge systems above the other (UNESCO, 2001b). This is especially relevant in schools with indigenous learners as educators run the risk of alienating the learners from the content being taught. Failing to incorporate traditional ways of learning in the classroom can lead to passive learners who are disconnected from the ways of learning taught in school as they would find themselves unable to identify with both the content being taught and also the way in which the learning experience is facilitated (King & Schielmann, 2004). Children coming in to school with a foundation in a language other than the official language instantly find themselves at a disadvantage. This leads to a loss of confidence in themselves as learners, as well as the inability to learn the official school language well as they are essentially playing catch-up to their peers. This then leads to high repetition and drop-out rates as children are unable to meet the required levels demanded of them (Malone, 2007).

While the importance of linking language and culture in education has been highlighted, implementing it has been a complex and contested issue altogether. There are many issues such as the legal questions on the status of indigenous languages relative to the national language (King & Schielmann, 2004). UNESCO, however, sees mother-tongue instruction as being essential, especially for initial literacy children as it is a language that they can actually understand. Learning of and through the second language should then be implemented in a gradual manner (UNESCO, 2003).

In Alaska, two initiatives promoting these reforms are the Alaska Rural Systemic Initiative (AKRSI) and the Alaska Standards for Cultural Responsive Schools. Started in 1995, the AKRSI looked to document indigenous knowledge systems of Alaska Native people and then develop pedagogical practices that would appropriately incorporate the knowledge and ways of knowing of indigenous people into the formal education system(King & Schielmann, 2004). The outcome of this initiative was

generally positive, with Alaska Standards for Cultural Responsive Schools being adopted by the State Board of Education and incorporated into the state Curriculum Frameworks document. They are now used throughout the state and have been received very positively. The tangible positives seen from this reform are:

-increase in student achievement scores

-decrease in dropout rate

-increase in rural students attending college

-increase in the number of native students choosing to pursue studies in the fields of science, math and engineering

-increased interest and involvement of native people in education in rural communities (King & Schielmann, 2004)

Sustainable Development Goals and indigenous peoples in Thailand

Considering the Sustainable Development Goals in the context of Thailand, there is still a long way to go in realizing the targets. Looking at the list of 17 goals, it would be perfectly reasonable to conclude that indigenous peoples would have much to gain were those goals to be fully realized. Most of these goals, in some way or form, affect issues directly related to indigenous peoples (poverty, hunger, health, education, gender equality, sanitation, energy, employment, inequalities, climate, seas, land, peace, partnerships) and thus are very relevant to the futures of many indigenous people groups. The fact is that many of these goals are so closely interconnected that they go hand-in-hand and solving one could essentially lead to solving several others. But the complexities of the issues mean there is no simple way to achieve any one goal without working towards the others. And so simply focusing on quality education for all will not be enough, as quality education is still conditional upon poverty and inequality.

As seen in the figure below, indigenous people in Thailand still face obstacles when it comes to quality education. The ideal of equal access to all levels of education may not be enough, because even with policy and perceived access, there are more factors to consider in equal and quality education. Girls in particular face obstacles, both from within the education system and from their communities, that prevent them attaining education at all levels. For many indigenous learners, school is a confusing experience, with curriculum being taught that is stripped of context and relevance to those learning in remote village areas. Classroom teaching does not reflect the values nor the backgrounds of the communities and students. Relevance is key in producing positive learning outcomes for indigenous children that will realistically benefit them in their lives and future livelihoods.

Education on sustainability is also important when promoting the ideals of sustainable development. Through involving youth in the dialogue, education plays a role in ensuring that the next generation can have an effect in changing practice, behavior, and practice towards a more sustainable future. Knowledge and skills towards sustainable development and sustainable lifestyles do not necessarily have to come from the central curriculum. Indigenous people have practiced sustainability and conservation for centuries, and within their communities lie vast wells of local wisdom and knowledge. This knowledge has been transferred down through each community's own system of informal education, and still has much relevance and validity today. Local indigenous communities need to be encouraged to continue this transfer of knowledge, as much of the wisdom has stood the test of time. Alternative education that combines elements of mainstream curriculum and traditional knowledge should feature more heavily in the discourse for indigenous children's education.

Figure 2 below presents another way of looking at SDG4 from the indigenous people's context. Inclusion and access are important, but indigenous peoples also need

space to practice and take charge of their own education. The AIPP (Asian Indigenous Peoples Pact) organization identified markers specific to indigenous peoples in the region. On the point of access, the main area highlighted was the need for education reform to ensure relevance to indigenous learners. Another important marker is the integration of indigenous peoples' knowledge, culture, and languages into formal curricula. This would benefit not just the local community but have a much further reach and implication to the mainstream curriculum. This would go a long way to showing that the knowledge and skills of the indigenous community has much to offer and contribute to the overall goal of sustainable development.

Figure 2

Goal 4: Quality Education	
Indigenous peoples, and in particular indigenous women and girls, face many obstacles within the formal education system. At the same time, indigenous languages and knowledge systems are often not reflected in formal education. SDG 4 provides an opportunity to ensure inclusive equitable quality education and promote life-long learning opportunities for indigenous children, youth, men and women, including indigenous persons with disabilities.	
4.1., 4.2. and 4.3. Equal access to all levels of education, leading to relevant and effective learning outcomes.	Ensure equal access of indigenous children and youth, and in particular indigenous girls, to all levels of education. Undertake educational reform to ensure relevance of learning outcomes for indigenous children.
4.7 Knowledge and skills for sustainable development, including education for sustainable lifestyles, human rights, gender equality, appreciation of cultural diversity and culture's contribution to sustainable development.	Integration of indigenous peoples' knowledge, culture and languages in formal curricula, including for non-indigenous sectors of society.

Source: (AIPP, 2017)

2.3 Concepts on Indigenous ways of knowing

The common assumptions regarding the future of indigenous peoples going into the future is that they have only two options, that is to either return to their traditional "primitive" livelihoods, or to totally leave behind that lifestyle in favor of being fully assimilated into modern society. There is a third option however, that needs to be in the conversation and that will favor indigenous people. That is to keep alive elements of their culture which define them, while selectively embracing the new and modern way of living.

Much has been done to bring mainstream education to the provinces and villages in which the indigenous peoples reside. However, what is overlooked is the need to link school education with the needs and life of these indigenous communities. Improving on the lack of infrastructure does not necessarily guarantee the quality or advancement of education. To many living in poverty or in rural areas, where subsistence through labor is the primary means of survival, education can be seen as a luxury rather than a necessity. What they lack in textbook knowledge and classroom learning, indigenous people make up for in their inherent local knowledge This knowledge is known as indigenous knowledge, traditional knowledge, or traditional ecological knowledge. Traditional in this sense does not mean an inflexible adherence to past ways and customs, but rather, constitutes wisdom that to this day stands the test of time. This wisdom includes teachings and experience passed down through generations, and is used and applied as a way of life (F. Berkes, 2008). It is a set of knowledge that have been "developed, tested, selected, and accumulated for generations (Narumon Arunotai, 2006). These teachings instill not only knowledge, but also values, common sense, religion, and a deep respect for nature. As many indigenous peoples traditionally do not have a written language, a lot of this knowledge was passed down orally through teachings, folklore, and through the arts.

It was not until recently that scholars and scientists have started to pay attention to this traditional knowledge. The truth is that much can be learned from the knowledge held within indigenous communities for hundreds of years. Nature and forest conservation teachings can be found within this set of knowledge. For example, shifting cultivation, also known as "slash and burn," an agricultural system of rotational farming in which land is cleared for use usually by means of burning, has long been believed to be a driver for deforestation. It has been used by indigenous people groups throughout Africa and Asia. Many anthropologists and cultural ecologists have come to different conclusions on the negative environmental impact of shifting cultivation. After studying and researching shifting cultivation, they have found it to actually be a sophisticated and highly complex agricultural system that sustainably supports subsistence livelihoods and enables settlements to exist in the area over the long term. As opposed to the common image of forest destruction, shifting cultivation has been found to be a complex system in which "fallow areas are strictly protected, areas of sacred forest are carefully preserved, and in which farmers undertake systematic enrichment of forests and fallow vegetation"(Conklin, 1954). Overall anthropological research has concluded that shifting cultivation can actually in practice support livelihood security and natural conservation. If practiced according to tradition, it is able to both protect the forest ecosystem and also provide sustained yields (Moran, 2000).While this knowledge clearly has its merits, "it is difficult for people from 'advanced' cultures to accept the idea that people from 'primitive' cultures might know something scientifically significant, or even know more about a subject within the fields of natural science, in this case fire ecology, than do scientists" (Lewis, 1989).

Even something as simple as walking and movement entails a whole separate knowledge set for some indigenous people groups, such as the Batek hunter-gatherers of Malaysia. Within their knowledge set they hold concepts of path, route, and movement through the forest that would be unheard of and unexplored within

mainstream knowledge. They have a complex language and concepts of route and movement mapping that is interwoven with the jungle and interactions with the ecology, choosing in some instances to leave the jungle as pristine as possible when passing through and in other instances to leave their mark and cut a path through (Tuck-Po, 2008). The anthropologist learned through walking with them, yet while not having "internalized" these skills and techniques, she had to innovate or learn "a whole new vocabulary for the body", knowing where to step and how to step", adjusting the pace, keeping the arms close to the body, etc.

The Hai‖om Bush people in Namibia have high tracking and orientation skills in the forest or "mastery of the landscape" without the use of material or paper maps. These orientation skills have mystified observers from the outside, who only understand orientation and navigation from a rigid scientific point of view. The Hai‖om have mental tools which are reflected in large number of landscape terms in their own language, their use of directional system and landmarks, and flow of spatial information communication or "Topographic gossip" where they talk and share places and locations of peoples and natural resources. Pitted against a modern GPS and told to navigate a distance between two points proved to be a simple task for them. This kind of "knowledge" is indexical or referential to the acting person (Widlok, 1997), meaning that the learning or knowing is definitely experience-based, and "the experience becomes integrated into one's knowledge of the forest landscape" (Tuck-Po, 2008). Local wisdom such as this can be a benefit to the holders as it can carry advantages for the indigenous groups in ventures that require special knowledge of different local flora, fauna, and natural processes (Fikret Berkes & Adhikari, 2006).

As shown in previous research, indigenous students do not perform as well in classrooms, especially in mathematics and science (Snively, 2001).This can be caused by the contradiction between indigenous and western modern science. Where indigenous science is seen as holistic and has a high regard for human's relation to

nature, western modern science is based on logical empiricism and puts more weight on control and manipulation of nature while relying on observation and experimentation over a short amount of time (Snively, 2001). They see knowledge as a process, something that is essentially tied in with your way of life, rather than knowledge simply as content that you can package.

Education and attaining modern, mainstream knowledge is important. But while education is important, it is not so relevant to indigenous learners in its current state. In education that aims to merge the old and the new, the goal is to cultivate pride in their heritage while also allowing them to keep up with the rest of the world economically (F. Berkes, 2008). Culturally appropriate education is an approach in which to address the previously mentioned issue. This would be a more suitable concept, where instructions and cultural patterns of the students are made more compatible. This would be done through adaptations to the structure of the school and its curriculum by including culture, language and the worldview of the relevant student group. Not only the learning achievements could be improved but also it builds pride in the groups for their own culture (Singh, 2011). The five key elements are 1) Language 2) Family and Community 3) Context 4) Content 5) Data and Accountability (Kana'iaupuni, 2007).

In Asia and Pacific region some of the UNESCO projects, in cooperation with regional partners are aiming to include indigenous communities by enhancing the understanding of mother tongue based multilingual education (MTB MLE) as has been promoted within the inclusive education as a framework (IASG, 2014).

Play as the route to education

For many indigenous people groups, hunter-gatherers in particular, education is facilitated through play. Education is essential to the human condition, and so is play.

Play is hardcoded into our DNA and regardless of the people or culture, children will naturally want to play. To survive, people everywhere depend on knowledge and skills that are passed down from generation to generation. This is essentially what education is. Rather than seeing education and play as two separate entities like the western world does, hunter-gatherers see education and play as going hand in hand (Gray, 2009). Parents do not actively train or educate their children, as they assume that the children will naturally educate themselves through their own, self-directed exploration and play. Because of this, the children are afforded a lot of time on their own to play and to explore. It is through these interactions in nature and with their peers that the children pick up life skills, and it is through play that children learn what they must to become effective adults.

Children in hunter-gatherer societies are always observing and learning and are never far from adult activities. They directly observe all that goes on in the community, and also accompany adults as they go out and gather food or to hunt. It is through these interactions that they learn how to be successful adults in their societies. As they observe and soak in the different ways of doing things over the course of their daily lives, they have the opportunity to explore by playing at the relevant activities that they observe the adults around them performing (Gray, 2009). These activities can be anything from practicing spearing small animals and fishes to sorting rocks and sticks pretending they are livestock. By incorporating these activities into their play at an early age, and playing at these activities regularly, they are able to gradually transition to the real thing after having a comprehensive education and training in the matter.

When the children are afforded free time to play whatever they want, it turns out that they choose to play at the activities that they see regularly, and those are the activities that happen to be crucial to their success in their societies. While their intention is to have fun, and not education, "it is exciting for children, everywhere, to pretend that they are powerful, competent adults, doing beautifully and skillfully what they see the

adults around them doing" (Gray, 2009). This play fosters kinesthetic learning, which is the learning method that the children are most familiar and comfortable with. It then makes sense that when you bring children from these backgrounds into the formal school settings within the confines of four walls, and expecting them to learn from a textbook in a language that is not theirs, they are lost and are at a massive disadvantage.

Integrating traditional ways of learning

In acknowledging the value of indigenous peoples' ways of knowing, the next challenge is in seeking to extend these ways of knowing to a larger society as a form of integrative knowledge. One interesting approach pinpoints and integrates 8 aboriginal ways of learning with western, more modern pedagogy. This is presented as an interconnected framework of eight aspects of learning that are identified as having common ground between western and aboriginal ways of learning and thus facilitates learning.

These are:

1) Story sharing: learning through the stories we share. The importance of story sharing is stressed. Teaching through storytelling, narrative, and songs is a tool that both pedagogies can and have been using to effectively teach.

2) Learning maps: learning through mapping/visualizing processes and our pathways of knowledge. Concept mapping is an effective teaching practice in which diagrams or images are utilized to clearly map out processes for the learner to visualize.

3) Non-verbal: learning through working non-verbally with self-reflective hands-on methods. Much of aboriginal learning and pedagogy is based on hands-on, kinesthetic learning. Learning is conducted through observation, introspection, and practice.

4) Symbols & images: learning through images, symbols and metaphors. Symbols, both visual and metaphorical are effectively used to illicit important knowledge and

concepts. Content is coded through visual cues and metaphors and is thus a useful tool in learning and memorizing complex content.

5) Land links: learning through place-responsive, environmental practice. This method connects teaching content with the world in which the learners live, thus giving it relevance. Ecological place-based and relational learning is a feature of aboriginal pedagogy and includes values such as traditional knowledge and connectedness to the different features and history of the land. Learning is contextualized as a result of linking content to local place.

6) Non-linear: learning through indirect logic, piecing together ideas and generating new knowledge. Rather than learning in a linear, sequential manner, aboriginal learning is done continuously in a relational manner. Lateral thinking is promoted in order to solve problems and create new knowledge, which is done through association and making connections to existing knowledge.

7) Deconstruct/Reconstruct: learning through modeling and scaffolding by working from wholes to parts. Focus is put on the whole rather on the parts, seeing the overall meaning and purpose first before unpacking and breaking down.

8) Community links: connecting with community and applying what we have learned for the benefit of the community, connecting learning to local values, needs and knowledge. In this way, the real-life contexts and community benefits are put into consideration, thus instilling learners with values needed to be beneficial parts of a whole (8 Ways, 2012).

Rather than simply trying to fill western educational systems with aboriginal content, this method looks to teach western knowledge through aboriginal learning ways, as they actually share lots of similarities that can be used in both systems. These eight interconnected pedagogies have a view of education and knowledge transfer that is holistic, non-linear, visual, kinesthetic, social, and contextualized. By drawing on the overlap between indigenous and western learning processes, common ground can be reached that offers value to all learners and educators alike (8 Ways, 2012).

Figure 3

8 Aboriginal Ways of Learning
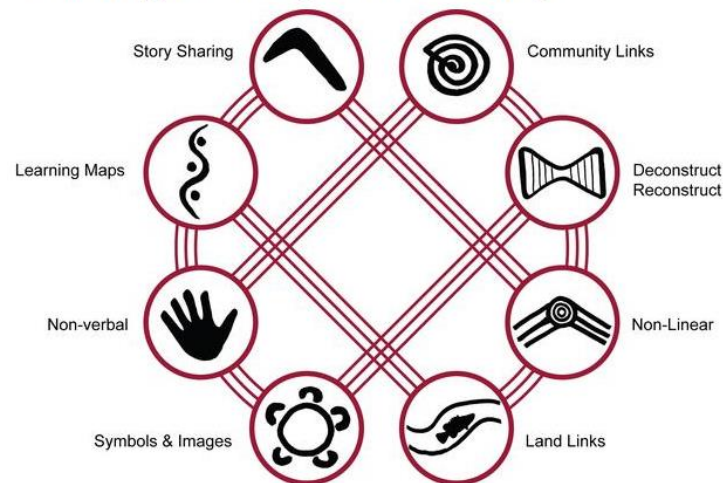
Tell a story. Make a plan. Think and do. Draw it. Take it outside. Try a new way. Watch first, then do. Share it with others.

*Aboriginal perspectives are not found in Aboriginal content, but Aboriginal **processes**...*

Source: http://8ways.wikispaces.com/

Concept of 4Rs in education

Another way of understanding and representing indigenous ways of knowing is through the Indigenous Wholistic Framework. This framework highlights indigenous values and ways of knowing, encompassing them in a concept known as the 4Rs – respect, relevance, reciprocal relationships, and responsibility. These 4Rs were first offered by Kirkness and Barnhardt, who acknowledged that First Nations students and their communities were seeking an education that "addressed their communal need for 'capacity building' to advance themselves as distinct and self-determining society, not just as individuals" (J. Kirkness & Barnhardt, 1991). The survival and advancement of the whole was more important than just the individual, and so completion of higher education for the sake of job attainment was not as much a priority as capacity-building within the community. This idea was later elaborated and expanded on, and then integrated into the framework by Pidgeon in the Indigenous Wholistic

Framework. Pidgeon highlighted how the 4Rs represent indigenous perspectives on "how Respect for indigenous knowledge, Responsible relationships, Reciprocity, and Relevant programs and services can transform institutional cultures and practices for indigenous peoples" (Pidgeon, 2016).

Figure 4

Source: (Pidgeon, 2016)

While initially developed for post-secondary institutions, the framework has carry over value even in the primary and secondary school context. The framework not only connects different aspects of indigenous knowledge, but also attempts to represent the complex interconnected relationships between individuals, their communities, their nation, and to the greater community. It recognizes that the individual's physical needs are linked to their spiritual, intellectual, and emotional needs and that in meeting each need is a healthy and balanced life achieved (Pidgeon, 2016).

The principles that guide this framework are detailed as follows:

Respect – Understanding and practicing community protocols and honoring indigenous ways of being. Respecting them for who they are.

Responsibility – Ensuring learners understand their role and potential both within the institution and within their communities. Helping students exercise responsibility over their own lives.

Relevance – Ensuring that curriculum is responsive to the needs identified by indigenous learners and their communities. Relevant to their view of the world.

Reciprocity – Sharing knowledge and learning together, with all participants as students and teachers in a learning process that is respectful and inclusive.

Cases and Experiences from other countries

It is clear that the issue of low educational attainment and high dropout rates among indigenous/first nations students is a worldwide issue and is not unique to Thailand. Indigenous and first nations children around the world are struggling and are at a disadvantage in public school systems. Many western countries have been making genuine efforts to rectify this problem, with varying degrees of success. Some have programs that have been implemented for decades, while others are still in their infancy. Nations with a strong indigenous presence such as Canada, Australia, and New Zealand have been all making concerted efforts towards structuring a more promising and inclusive educational future for their indigenous learners.

In Canada, the history of education among the first nation's children had a rocky start. There was a period of forced assimilation in which children were taken from their homes, forced to study in residential schools, and made to speak only English. Needless to say, not much was gained from this other than creating further rift between the first nation peoples, leaving deep wounds that remain to this day (Ghizan, 2013). At the time the government considered it all for the best of the interests of Canada's aboriginal people` but instead it created long-lasting impacts that negatively affected the self-concept, parenting, social cohesion, and the inter-generational transmission of language and culture of the people. Because of this, generations of

indigenous people have lost connection with their language, culture, and identities as members of an indigenous community(Jessica, 2004).

With the failure of these residential schools, the government then supported the placement of these indigenous children in public schools. The need for new approaches to make education culturally appropriate was identified. It was made clear that the current one size fits all model of education was not conducive to the development of the indigenous learners, but rather shattered the sense of cultural pride of the learners and challenged the validity of their cultural knowledge. What was happening was a gradual homogenizing, monocultural colonization of the indigenous communities (Jessica, 2004).

Long before the arrival of Europeans and their form of education in North America, education of a different form had already been taking place within the communities. The environment was the classroom, and learning was done through the process of observation and imitation of daily activities. These activities were geared towards imparting skills and knowledge crucial for social, political, and economic survival (Maina, 1997).

With the Western form of education, indoctrination through a totally different set of values set in. Former values of community and harmony with nature were replaced with western ideals and forms of knowledge. However, first nations people in rural areas have not benefited from this mainstream education. Centralized education brought directly to the communities have failed to reflect and be applicable to the culture and situations of the indigenous communities. The indigenous students that do complete the mainstream education often fully adapt to the western knowledge-based value system. The communities that have supported their higher education are thus often left disappointed as they do not return to their communities, or if they do, they return as "strangers," bringing with them ways of doing things that may be fitting to

urban white communities but are not appropriate or fitting to their home communities (Jessica, 2004).The re-socialization of youth within their cultures deserved to be looked at, so that through education, young indigenous learners would gain a sense of pride in their cultural heritage.

In 1989, several communities came together to develop an accredited community-based education program and strengthen indigenous community capacity. They wanted a curriculum that would provide training and be grounded in their Cree and Dene cultures. Along with this, they also wanted members of their community to be qualified to be able to be employed in non-indigenous settings (Pence & McCallum, 1994). The goal in this was to create an approach of capacity building that would enable and equip members of their communities to "walk in both worlds."

This pilot program, known as the First Nations Partnership Programs, started with the understanding cultural values are rooted within the community and needs to be given a place within the curriculum, but also that western knowledge and perspective is also valuable. In respecting that validity of both cultures, they created a safe and supportive platform from which learners could engage in constructive culturally grounded curricula was a combination of two knowledge "traditions" (Jessica, 2004).

The results of the evaluation on this course showed unprecedented success. Three out of four students that enrolled were able to complete the full two years of university-accredited courses. This was vastly superior than the national average of forty percent and below for first nations students in other programs. Ninety-five percent of those that completed the program stayed in their communities and sixty-five percent of these that stayed started new programs for children, youth, and families. Others had joined in to help manage community-based services. Eleven percent of the graduates went on to pursue further education and university degrees (Jessica, 2004). Programs such as

this have the potential to totally change and vastly improve the quality of life in remote rural areas.

2.4 Concepts on alternative education

In acknowledging sets of knowledge and pedagogy outside the mainstream and appreciating their social and economic worth in the world today, the next step is to realize how to tie it in with the current state of education. As this issue is neither a new nor unique issue, it would be wise to learn from those who have gone through similar experiences. Indigenous learners are being left behind not only in third world and developing countries, but also in western developed countries. Across the globe, there still seems to be a gap between policy and practice, and so while educational opportunities have been on the rise for indigenous children, there remains a significant gap in education achievement and attainment between indigenous learners and their non-indigenous peers in countries such as Canada, Australia, New Zealand, and the United States. In these countries, a Eurocentric curriculum is taught to all students. This curriculum assumes that all children, regardless of ethnicity, language, class, or gender, will benefit evenly (Hickling-Hudson, 2003).

J. Hare & M. Pidgeon (2011) conducted a case study within two First Nations communities in Ontario, Canada. In familiarizing themselves with the lives and educational experiences of 39 First Nations youth, they were able to analyze how the youth responded to the challenges of education both within the public-school context and in a First Nations community-controlled high school. The story is the same as you may find elsewhere, with indigenous learners struggling to find relevance in the mainstream curriculum and pedagogies that ignores indigenous people's history, worldview, and perspectives (Hare & Pidgeon, 2011). Another constant that can be found throughout the world is the racism and marginalization faced by indigenous learners on a regular basis. It is sad that even at a young school age, children

belonging to the majority are socially conditioned to discriminate against those different than themselves, but more on that later.

For their shortcomings in achieving high academic standards, the blame more often than not falls to the indigenous learner and their families rather than to the academic system. But being incapable of learning and acquiring education is not the case for the indigenous learner. Knowledge systems and wisdom have been passed down for centuries in an informal education context, so lack of capacity is not the issue. The case study by Hare and Pidgeon places youth as the focus of the research to "identify the inequalities indigenous youth faced in their schooling and how they exercised strategies of agency and resistance to allow them to take a warrior's stance, reaching within their families and communities to take hold of the Indigenous knowledge contributions that allowed them to reframe their educational experiences" (Hare & Pidgeon, 2011). The metaphor of "warrior" connects to the contemporary longing to get in touch with indigenous peoples' cultural roots through reconnecting with their sources of strength stemming from their traditional territories, spirituality, cultures, and languages.

Historically used as a vehicle for assimilation, education continues to promote mainstream western knowledge and values while disregarding those thought to be 'primitive' or insubstantial. In addition to legitimizing dominant languages and ostracizing their local languages, a disconnect is created between indigenous learners and their communities and culture. The authors pointed out racism as a key factor in indigenous students' lack of educational success. Systemic racism in different forms, both from fellow students and from teachers, are detrimental to and impede both education and employment opportunities. These negative interactions instill a low self-esteem within the students, and eventually lead to the student leaving the school system altogether (Hare & Pidgeon, 2011). All these various systemic inequalities in education are contributing factors to the low educational attainment and success rate

among indigenous learners, which cannot be blamed on the learners but rather on the system that is creating the inequalities.

In their results, the researchers found that indigenous students had exercised resistance to the adverse effects of marginalization and assimilation by drawing strength and value from their connections to families and communities. Through this resistance, they were able to cope with and confront the ethnocentric and anti-indigenous prejudice that permeated their interactions with their peers, teachers, and the curriculum they were learning (Hare & Pidgeon, 2011). On facing racism on a regular basis, youths that were interviewed related instances of being subject to discrimination and racism in the public school system. Whether direct or indirect, personal or systemic, the common theme in their experiences was of being marginalized because they were different and aboriginal. Despite the negative impacts from these factors, the students received invaluable support from their immediate and extended families to persevere in education, disproving the common narrative that indigenous peoples do not see the importance or need for education. The truth was that education had been a part of their communities for centuries, just in different more informal forms.

Alternative schooling is an option in some First Nations communities, and several students interviewed took that option for high school. These schools are provided as an alternative for students who could not or chose not to attend the local high school. These alternative schools offer a higher degree of flexibility for learners, taking into account that there may be outside factors preventing students from attending school at various intervals. Being in a more intimate classroom setting among peers who share the same social backgrounds has helped the students to gain confidence and flourish (Hare & Pidgeon, 2011). Also, learning in a culturally relevant pedagogy that incorporated their language, culture, and issues was helpful to them. More and more indigenous communities are starting to reach within their own communities to develop alternative education options.

Further case studies nations that have a history of colonization and assimilation bear similar results and findings. Hickling-Hudson & Ahlquist conducted a similar case study on the different experiences in public verses alternative education schools in the United States and Australia. In both countries, the unemployment rate for indigenous peoples is extremely low (both in single digits) and the education system does not seem to be opening the same opportunities to indigenous people as it is to others within the same system (Hickling-Hudson, 2003).

In the Australian public school visited by the researchers, it was found that most children leave school at or even before the seventh grade. This was blamed on low attendance rates of the students as many attended very sporadically. What was noted was that the school curriculum neither related nor portrayed anything from the daily life experiences of the students. Examples of this can be seen when students were asked to describe and illustrate different parts of a freight train, while in reality none of them had ever seen or observed a train (Hickling-Hudson, 2003). The American public school visited by the researchers had a large native American population and similar results in terms of indigenous education were seen. The curriculum is highly test-driven with emphasis being put on raising the average test scores for standardized tests. With a focus on test scores, little was done to address the needs of indigenous learners and indigenous students and parents were blamed for their children's low literacy and numeracy. This was a stark contrast to the community-controlled school which they would also visit. This school was in a native American reserve and had strong community support and parent involvement along with teachers that were mostly native American. Rather than putting an emphasis on test results, the school adopted a 'both ways' approach to its curriculum, balancing indigenous and mainstream education content. Within the school, picture, posters, and signs portrayed a wide variety of indigenous-related topics, from indigenous history to herbs used by locals (Hickling-Hudson, 2003). Every effort was made to make the curriculum

relevant to the students while still providing a solid educational foundation for students.

The question can be asked of how such schooling stands up to educational standards throughout the country, and whether students are being educated at a lower standard as a result of the custom curriculum. The independent community school visited by the researchers in Australia was able to present a case for the education quality of such schools. The school, consisting of mostly primary and some secondary indigenous children, boasts both strong community involvement and academic standards with their third grade students testing higher than the state average in both literacy and numeracy (Hickling-Hudson, 2003). Here, children were noted to enjoy coming to school and did not have a problem with attendance. The curriculum is shaped to reflect both the culture and concerns of the students while also meeting or exceeding the standards set by the state. Here, community elders regularly visit the school and impart traditional knowledge and folklore to the children. This case shows how schools can benefit from collaboration between teachers, students, parents, and community members.

It is important to not only equip young learners academically, but also to prepare them for life and livelihoods that will not remove or alienate them from their communities. While education and learning the dominant language and culture does open students to greater social mobility, the adverse result can see them severing ties to their cultures and roots. But when students' identities are acknowledged, and their language and cultures validated, they are able to be instilled with a strong respect for both indigenous and mainstream viewpoints.

2.5 Alternative education in Thailand

In looking to incorporate traditional knowledge and ways of knowing into education and learning for indigenous children in Thailand, it is important to map out the

development of already existing alternate education in Thailand. There have been several ventures that have achieved a degree of success in this regard, most of them being backed or funded by both local and foreign non-government organizations. Some of the more notable alternate education schools are located in north Thailand and operate under the Inter Mountain Peoples Education and Culture in Thailand (IMPECT) Association. They see local curriculum as an important tool in empowering communities to be a distinct people group in a society that fails to recognize and promote diversity. One of the goals of IMPECT is also to revitalize and maintain traditional knowledge and practices that will be able to be carried on by next generations.

Being based in the north, IMPECT focuses primarily on indigenous people groups known as the hill tribes. These consist of groups such as the Akha, the Lisu, the Karen, and the Hmong. Like many indigenous people groups, the hill tribes are often marginalized. The government has done much to improve the infrastructure in the various remote villages where they live, but still they are at a disadvantage both socially and economically. As they face poverty and lack of opportunities, many villages and communities still rely on the aid from NGOs for healthcare, education and advocating their rights.

While there were government-run school in the mountain villages in the north, schooling was not always useful to the hill tribe students. The Thai teachers that were sent to the remote schools had little to no knowledge of the background language, and cultures of the indigenous peoples. As it was, the hill tribe children had trouble adjusting to formal schooling and the teachers, not understanding the background of the students, found it difficult to get through to them (Baba, 2010). The content taught was not relevant to their current situations and was more tailored for students living in more centralized areas.

As NGOs began to step in, the government cooperated and worked with them as the NGOs had experience. While initially focusing on helping the hill tribe people get citizenship and rights, NGOs also focused on protecting the languages and cultures of the hill tribes. They began to consider and suggest methodologies that would integrate indigenous knowledge in an alternative education that would see the situations of indigenous students improve (Na Lee, 2016). IMPECT, as introduced earlier, was one such organization. In conjunction with the Office of Non-Formal Education, they started a school in the Karen village 1992. Funded by the community and NGO, the school employs teachers from within the community, in that way they can communicate with the students in their mother tongue and also can connect with the students culturally. The school is recognized by the Office of Non-Formal Education and uses a flexible curriculum that incorporates elements of mainstream education as well as elements of traditional knowledge and culture (Baba, 2010). The strength of such a school lies in the fact school utilizes the inherent knowledge of immediate community. Another such NGO in North Thailand that is a strong proponent of mother tongue-based multilingual education is the Foundation for Applied Linguistics (FAL).

FAL promotes education that is taught in the language of the indigenous learners. More than simply teaching the mother tongue, the program develops lesson plans and curriculum to match the context of each particular community. Working actively with Mahidol University, FAL developed the program which was accepted by the Office of the Basic Education Commission (OBEC) under the Ministry of Education in 2007. By 2015 the program covered 20 schools in the communities of 8 different indigenous subgroups (Na Lee, 2016). These schools also received most of their funding from overseas NGOs, although some of the budget support was from OBEC.

While both programs are successful, the common denominator is the overseas funding. Without monetary funding form international NGOs, the schools and

programs would not be able to run as they need to pay the salaries of the indigenous teachers as well as keep the schools running. There is yet to be a government initiative that fully supports or sustains such programs.

To get a clearer and more in-depth insight on alternative education in Thailand, Mor Wah Khee Learning Center in Chiang Mai was studied as a case for successful implementation of alternative schooling. Mor Wah Khee is a community-based alternative education school based in Chiang Mai, and has been operating for more than twenty years. It is for the Karen indigenous people group in North Thailand, and there is much to be learned from their experiences and success.

One of the success stories that came out of the program initiated by IMPECT is Mor Wah Kee School in Chiang Mai. Mor Wah Kee means source of the river in the Karen Language. The researcher was able to interview the manager of the school who works directly with IMPECT. Also interviewed were several students, teachers, and an academic whose expertise in indigenous people's issues has seen him work closely with the school and administration. The school is a community school located in Chiang Mai province, and was started to meet the specific needs of the local Karen community. The idea was to start a school for children in forest areas and communities where there were no schools nearby. It was started 26 years ago when leaders from Mor Wah Kee community went to the director of IMPECT with the proposal. It was agreed that the community needed a curriculum by and for the community, not from the state.

Five schools and communities were included in this project. This was to be one of the first alternative education initiatives in Thailand. Some of the other community schools that were started at the same time are not presently running today, but Mor Wah Kee is currently still running and thriving. The goal of the school is to strengthen

cultural and traditional knowledge, and in so doing promote community management. The teachers for the local curriculum come from within the community and are paid a salary through IMPECT. Community members and knowledge holders go into the school and help teach local knowledge to the youth as well on a voluntary basis. Teachers for the regular curriculum are Thai, and they work together with the Karen teachers to develop an adjusted curriculum that fits the needs of the community. Even though the curriculum itself is a mixed curriculum, standard testing is administered through the Office of Non-Formal Education.

The school is only till sixth grade, and most of the children who finish go on to study in the Thai high school. The school manager noted that when they enter the Thai schools, they are at a higher level than that of their peers who went through the mainstream curriculum. Even though the community and parents want their students to study in the alternative curriculum beyond sixth grade, limited resources and funding have not made that an option. On what the hopes were for students who go through the school's primary program, the school manager said:

> "We hope that the students are equipped with self-confidence, appreciation for their culture and way of life, and traditional knowledge. If they have knowledge from within community and knowledge from outside the community, they will be able to be leaders in both worlds." (Aug 10, 2018: Chiang Rai)

The students that study there prefer the flexibility of the alternative education and the life skills they are able to learn at the same time, such as going outside of the classroom to learn through experience, and not just from textbooks. Examples of these outdoor forays include going out into the forest for three days looking for the water source. Students are also taught to learn how to make postcards, calendars, and

handicrafts that they could sell to make an income. This learning system boosts self-confidence and pride in being indigenous.

2.6 Relevant Literature on the Moken

While considering the provision of quality and culturally appropriate education for indigenous peoples, it is important to review the historical, legal, and political context of the people group who are the focus of this research.

The Moken of Thailand and Myanmar are one of the very few remaining hunter-gatherer peoples in the region. Traditionally a maritime nomadic people who have made the sea their home, they are often referred to as Chao Lay, sea nomads, or sea gypsies. They live along the coastal regions and islands of the Andaman Sea and are fighting to keep their ways alive in an ever-changing world that threatens to leave them behind (H.R.W., 2015).

Within Thailand, the total Moken population is around 1000 in number with their major communities situated on Lao Island, Phyam Island, Chang Island, and Surin Islands. There are also some 100 odd Moken living in the Rawai community on Phuket Island. Smaller groups of them can be found residing in over twenty communities along the coastal areas and islands of Phang-nga and Phuket provinces (Narumon Arunotai, 2017).

Traditionally, the Moken reside in boats during the dry season and travel to different islands in pursuit of maritime subsistence activities. Being skilled divers and navigators, they are at home when out at sea and possess an intimate knowledge of the sea and life within the sea. This knowledge is invaluable, and they are able to make their livelihoods from the sea. In the past, they were able to trade whatever they harvest and catch from the sea. Thai middlemen and traders would take their catch in

return for rice and other necessities (Narumon Arunotai, Wongbusarakum, & Elias, 2007).

During the monsoon season, seafaring becomes dangerous and difficult. During this time, they build temporary shelters in bays that are protected from the winds and waves. Having lived their nomadic lifestyle for the last several centuries, frequenting several island locations as they moved around, it was not until the past several decades that many groups decided to establish and maintain more permanent communities (UNESCO, 2001a).

Although historically they are a nomadic people, they have become more and more sedentary as of late. Take the Surin Islands for example, there are at least ten sites on the North and South Islands where the Moken used to settle during the monsoon season, before the tsunami there were two villages, and post-tsunami reconstruction merged the two villages into one large settlement.

There are several reasons for the decline of nomadic life. Firstly, travel around the Mergui Archipelago became increasingly dangerous due to rising ethnic conflicts as well as the increased risk of coming across a Myanmar naval patrol. Those caught ran the risk of military forced labor, and so many avoided the risk altogether. Also, around this time, borders between Thailand and Myanmar began to be defined and more enforced. This put restrictions on their previous free movement around the Andaman Sea. Another reason is that the locations and places they had been visiting for centuries had been increasingly coming under state and private ownership. National parks and protected areas were established, and development of coastal land for the tourism industry meant that they could no longer forage or settle on land that they had frequented for centuries. On top of that, they were restricted from harvesting the wood they require to make their traditional boats by the National Park authorities. As a result, they adopted Thai hua thong boats that ran on gasoline, making long voyages unfeasible. As the outside pressures mounted, and incentives to settle increased, more

and more Moken chose the sedentary lifestyle and settled in villages around the coastal areas (Narumon Arunotai, 2017).

After the Indian Ocean tsunami of 2004, their lifestyles became even more sedentary as the Thai government started tightening immigration and maritime conservation laws, limiting their movement and their traditional way of life which heavily relied on living off the land and sea (H.R.W., 2015). The tsunami swept away their villages, but they were forewarned through their knowledge of the sea that was passed down from their ancestors, and were all able to escape to higher ground where they were spared from the waves. This knowledge is part of the indigenous knowledge set that the Moken hold. They have a special connection to nature and are in tune and very knowledgeable about their environment and natural resources. This knowledge was cultivated over generations of their nomadic lifestyle, making them expert navigators who can read the winds, waves, and lunar cycles. It was this knowledge that helped them see the signs in the sea as the tide receded and were able to have an early warning of what was to come (Arunotai et al., 2007)

The aftermath of the tsunami saw huge amounts of international financial aid and NGOs pour into the country. Many in the Moken communities were able to receive a Thai identity card as a result of increased international coverage on their plight and pressure on the government. A new school was built for the island community situated in Surin Islands Marine National Park with funding coming from the Princess Sirindhorn Tsunami Fund (Arunotai et al., 2007).

In the past, the Moken's livelihood was based off subsistence-based foraging, hunting, and trading. Currently, employment prospects available for Moken are very limited. Being denied their traditional way of life of living off the sea by restrictions placed upon them by the government, they are having to adapt to previously unfamiliar occupations. These include menial labor jobs (sometimes for well below the national minimum wage), tourist boat drivers, garbage collectors at park campsites, and other

similar jobs. Unemployment remains high among the Moken and job security remains low (H.R.W., 2015).

There is a wealth of information, studies, and anthropological research that has been written on the Moken. Notably by father-son French anthropologist due Pierre and Jacques Ivanoff, whose extensive research and works on the Moken have covered multiple topics from Moken boat building to their experiences interacting and living with the Moken. Other works by various researchers over the years cover topics such as linguistics, underwater diving vision, post-tsunami adaptation, and other similar ethnological issues. However, little attention has been given specifically to the topic of education. This paper will contribute to and address the gap in knowledge on Moken education situation and prospects.
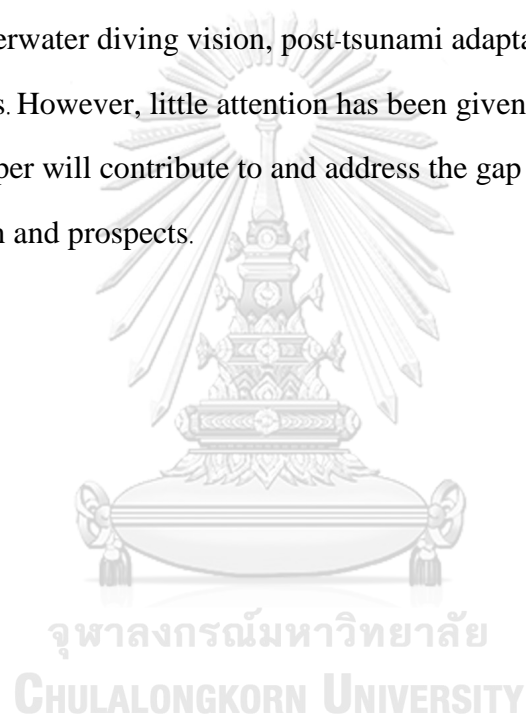
Chapter 3: Methodology

The purpose of this chapter was to identify avenues of education for Moken children that would help open them to opportunities that were previously unthought of, whether academically or vocationally. This was done through identifying factors that may be holding them back and possible solutions. This chapter highlights the researcher's scope and study areas, as well as detailing the different individuals and groups interviewed. Responses from both educators and students are key to indicating issues of interest, as are insights and input from community members and agencies working within the communities.

3.1 Scope and study area

The proposed study areas were Moken communities and schools in several locations.

1) Surin Islands, Phang-nga – Community Learning Center – The Surin Islands were chosen as it was one of the larger Moken communities in the country. Being on an island in a national park, the village remains fully Moken with minimal influence from Thai communities. The school on the island also consists of students that are all Moken. The community learning center on Koh Surin has children from kindergarten up till seventh grade. The students are all Moken as this is a Moken community. As of now, there has yet to be a high school graduate from the island. Most children finish up till grade 6 and start working or helping their parents, either at home or at their workplace. Students that wish to study and complete high school will have to attend the Thai government school on the mainland.

2) Phyam Island, Ranong – The other major community selected was the Moken village on Koh Phyam. While still remaining somewhat segregated, there is still a great deal of interaction with the neighboring Thai communities. The school on the island is mixed, consisting of Thai, Moken, and Burmese students. Koh Phyam Community Prep Classroom – Students at this center

receive non-formal education with the aim of joining the local Thai

government school when their language and academic understanding is up to

par with the required level. Since this is in a Moken community, all the

students are Moken and are taught Thai speaking and basic literacy. When they

are ready, they transition to the local Thai school. Children that cannot handle

or stay in school for whatever reason, receive further non-formal education and

are taught life skills for future livelihoods.

3) Other communities – Several other communities were included in the study,

   although not all were personally visited and observed by the researcher. Key

   members, students, teachers, and administrators of those communities were

   interviewed, with the data serving as a helpful comparison to the other

   communities studied. These include: Koh Lipe, where the Chao Lay teacher

   that was interviewed teaches special indigenous knowledge classes to her

   students. Rawai, where parents and community elders were interviewed on

   their current situations and their views on education and where it can take their

   children.

Table 1

Relevant Communities Studied or Interviewed			
School Name/Location	**Place of Education**	**Grade Levels**	**Demographics**
Moken Learning Center Koh Surin, Phang-nga	Learning Center, Non-formal education supported by Princess Foundation	K - 6	Moken
Moken Learning Center, Koh Phyam, Ranong	Learning Center, supported by Christian Church	Pre-school, tutoring session	Moken
Ban Koh Phyam School, Ranong	Government School	K – 9	Mixed (Moken, Thai, children from Myanmar)
Wat Sawang Arom, Rawai, Phuket	Government School	K – 9	Mixed (Thai, Urak Lawoi, Moken)
Ban Koh Adang School, Koh Lipe, Satun	Government School	K – 9	Mixed (Urak Lawoi, Thai)

Figure 5

Source: Google Maps

3.2 Survey, developing guideline questions and identifying informants

Having already undertaken an initial survey trip to the research locations, rapport and

trust with the community members had already been established. In talking with the

various villagers, several members of the community were identified as possible

informants due to their standing or roles within the community. Familiarity with the

community was helpful in developing the guideline questions as the researcher was

able to see and experience firsthand the communities in which the research is geared

towards. Within the initial survey trip, notes were compiled that would aid in forming

the in-depth questions that were to be used for data collection. Previous

misconceptions were corrected, and concise information on local school attendance

and demographics were able to be attained. This would aid the following trips in which the researcher collected the interview data.

Four key informant types were identified for interview:

1. Chao Lay adults/parents
2. School teachers/NGO with work relating to children and education
3. Chao Lay and other indigenous children
4. Academics, experts or those with experiences on indigenous children education

3.3 Fieldtrips and data collection methods

A field trip was taken with the Chulalongkorn University Social Research Institute in which a cultural camp was held for the youth in the communities. This camp consisted of several stations, teaching traditional knowledge and values to the children while at the same time empowering them to be proud of their heritage and background. As a result of the training and knowledge received in the camps, the children are gradually developing skills to be proficient guides in their communities for tourists who are interested in the community and want to know more about local knowledge. The primary, first-hand data collection here was acquired by qualitative approach via semi-structured in-depth interviews and observation of both the local community, differentiating between community key informants and the effected younger generations to be educated (as they are the ones most effected), and the relevant educational authorities for the target areas. In-depth interviews were developed for each specific target group, with relevant questions for them. Throughout the interactions, observations and participant observations were noted down to gauge attitude towards learning and teaching respectively. The data was collected over

several trips to the different communities over a period of time spanning eleven months, from February 2018 to December 2018.

3.3.1 In-depth interviews

In-depth interviews were conducted informally and in a semi-structured manner. The researcher was able to engage in dialogue with stakeholders and key informants. Open-ended questions were used so as to allow more flexible discussion and delve further into topics based on answers from interviewees.

Table 2

	Chao Lay adults/parents					
	Name	Origin	Sex	Ethnic Group	Type	Affiliation
1	Kaay Klathalay	Koh Surin	m	Moken	Parent	Koh Surin community
2	Ngoey Klathalay	Koh Surin	m	Moken	Parent	Koh Surin community
3	Nya-Nyo Klathalay	Koh Surin	m	Moken	Parent	Koh Surin community
4	Nin Klathalay	Koh Surin	m	Moken	Parent	Koh Surin community
5	Suthat Klathalay	Koh Surin	m	Moken	Parent	Koh Surin community
6	Orawan Hanthalay (Ying)	Bang Sak	f	Moklen	Parent	Bang Sak community
7	Dtaew Senwud	Rawai	f	Moken	Parent	Rawai community
8	Petch Bangjak	Rawai	m	Moken	Parent	Rawai community
9	Mae-Ning	Rawai	f	Urak Lawoi	Parent	Rawai community

Table 3

	School teachers/NGO with work relating to children and education					
	Name	Origin	Sex	Ethnic Group	Type	Affiliation
1	Wilasinee Klathalay (Khru Kaeng)	Koh Surin	f	Moken	Teacher	Community Learning Center
2	Sithichok Uduandeun (Khru Ohn)	Koh Surin	m	Thai	Teacher	Community Learning Center
3	Sangsom Hantale	Koh Lipe	f	Urak Lawoi	Teacher/parent	Ban Koh Adang School
4	Kanokwan Suyyoang (Mor Nuy)	Koh Surin	f	Thai	Community health staff	Community Health Center
5	Philippus van Wyk	Koh Phyam	m	S. African	NGO	STAMP
6	Fiona Parsons	Koh Phyam	f	Australian	NGO	All for Villages

7	Arporn Pumiputhavorn (Nui)	Phuket	f	Thai	NGO	Childline
8	Khankaew Rattannawilailux	Chiang Mai	f	Karen	NGO	IMPECT
9	Wapor Montha-arri	Chiang Mai	f	Karen	Teacher	Mor Wah Kee School
10	Rattana Chamnamkoon	Prachuap Khiri Khan	f	Thai	Teacher	Office of non-formal education
11	Thidarat Radwai	Nakhon Si Thammarat	f	Thai	Teacher	Home school curriculum

Table 4

Chao Lay and other indigenous children						
	Name	Origin	Sex	Ethnic Group	Type	Affiliation
1	Tongdee Talayleuk	Koh Phyam	m	Moken	Student	Church-based Community Learning Center
2	Tinee	Koh Phyam	m	Moken	Student	Church-based Community Learning Center
3	Wood	Koh Phyam	m	Moken	Student	Church-based Community Learning Center
4	Nono	Rawai	m	Urak Lawoi	Student	Wat Sawang Arom
5	Tanasai Bangjak	Rawai	m	Urak Lawoi	Student	Wat Sawang Arom
6	Ketkakun	Rawai	m	Urak Lawoi	Student	Wat Sawang Arom

Table 5

Academics or experts or those with experiences on indigenous children education					
	Name	Origin	Sex	Ethnic Group	Type	Affiliation
1	Ken Kampe	Chiang Mai	m	Scottish	Expert on IP Issues	Chiang Mai University
2	Paladej Na pombejra	Bangkok	M	Thai	Research on Moken issue	Chulalongkorn University Social Research Institute

3.3.2 Case subject interviews

Interviews and discussions were conducted with key adults and youth in the community. Similar to the in-depth interviews, the discussion was loosely structured in order allow space for dialogue and permit flexibility as different topics were explored.

3.3.3 Informal talks

Another source of data came from informal talks, wherein the researcher struck up conversation with stakeholders who were able to provide information and

perspectives contributing to the research. All interviews and informal talks were recorded with a audio recorder along with the researcher's personal notes.

3.3.4 Observation of livelihoods and activities

The researcher had the opportunity to observe first-hand the Moken youths and adults interacting in their environment and in different learning situations. Through observation, it became evident fairly early on that the Moken are a hands-on people. Throughout the community, the Moken people could be seen engaging in different activities utilizing their fine motor skills. Activities such as repairing fishing nets, carving wooden souvenirs, piecing together miniature boats, or threading beads to make necklaces all seemed effortless to them. In most cases, they would have children hovering around them observing and inadvertently learning the different processes. Direct instruction is rarely given, but observation seemed to be the asset and learning tool most important to the Moken.

During the time in the communities, the researcher was also able to interact with the children in the capacity of teacher and learning facilitator. Basic English vocabulary was taught, and from that certain learning behaviors and preferences were observed. When the content taught was strictly vocabulary, the children were unable to follow along and many checked out mentally. The children were distant and unresponsive. However, when the researcher started connecting the content taught to tangibles around them, the learners brightened up.Nature words were elicited by showing the .world links and only then did the learners become engaged-corresponding real English might be a difficult language, but when you can connect it to things you see and do every day, the children understand the context and all of a sudden it is relevant and exciting.Unsurprisingly , the part that they took in the most was the nature section, when they could say the different vocabulary words in English and then point them out in their immediate surroundings.

Another opportunity to observe the learning processes came in the form of youth guide training. The children were given instruction on different trails and plants along the trail that could be of interest and use. Rather than just detailing it, the elder Moken would walk them through the trail and teach them by showing, a recurring aspect of their learning process. Children generally do not need to be told or shown twice, once they have a grasp of something, they seem to be able to emulate fairly well.

3.4 Data analysis

In analyzing the data, common themes or patterns were looked for in the relevant interview data. In doing so, efforts were made to understand the results of the qualitative data through "the process of bringing order, structure, and interpretation to a mass off collected data" (Marshall & Rossman, 2006). The analytical procedures to be followed consist of the following steps as per Marshall and Rossman:

1. Organizing the data – interview data was transcribed and organized post-collection, and then translated to English.
2. Immersion in the data – the data was thoroughly pored over, with the aim of identifying similar themes and correlating data
3. Generating categories and themes – after themes have been identified, they were organized with direction from the literature review and earlier observation of data
4. Coding the data – the data was coded into categories and themes
5. Writing analytic memos – notes were made by the researcher throughout the process in order to better organize and keep track of the thought process and to aid in reflection
6. Offering interpretations searching for alternative understandings – the researcher aimed to interpret the data through identifying associations or

patterns in order to give meaning to the data. Alternate meanings and understandings will also be looked for in this process

7. Writing the report – the final data was put together and presented in the form of a thesis

The secondary data collected through a comparative literature approach of analyzing participatory educational research, educational models in other regions of the world, and specific requirements for native communities in regard to cultural and educational perspectives have been integrated into possible solutions to be suggested in order to reach the goal of improving the education and at the same time preserving the unique culture of the Moken in Thailand.

Chapter 4: Indigenous children and education in Thailand

4.1 Current state of education in Thailand: policy, practice and reform effort

To understand the shortcomings and gaps in the educational system in Thailand, one must know the history and the background from which it arose. Before the arrival of western style school system, education in Thailand was overseen by three institutions: home, temple, and palaces. At home, young people would learn occupational and life skills, these were transferred down generation to generation. Young boys would learn literacy, Buddhist values and morality at the temples, while in the palaces, young nobles would be trained in the classic arts and literature. This type of education was more informal, with no set curriculum or structure (Sangnapaboworn, 2007). It was not until the reign of King Chulalongkorn (1868-1919) that education as an institution was established to meet the growing need of modernization.

In response to the threat posed by European colonialism, the King saw the need to modernize or, like Siam's neighbors, fall under the rule of European powers. After returning from visits to various countries in Europe and Asia, the King began a period of modernization with the policy aiming to transform Siam into a modern country in order to protect it from colonialism. Education was seen as a vital cog in the process of modernization, and so capable young men were sent to Europe on scholarships to study and return with their education to serve as in leading positions in bureaucratic offices (Sangnapaboworn, 2007). The education system in Siam began to be reformed, and social structures and social relationships were also undergoing a notable shift. Education was the catalyst for this change, as formal schools took the place of temples as the institutions of education while reaching a higher number of students. Through education, commoners were now given the opportunity to become bureaucrats whereas before, such positions were obtained through connections of

lordships inherited through generations (Feigenblatt, Suttichujit, Shuib, Keling, & Ajis, 2010).

Education thus became closely knit with political and economic development. This was seen in the centralization of the education system, wherein the Department of Education was established in 1887. Five years later it was renamed and upgraded to the Ministry of Education in 1892, functioning as the bureaucratic office that oversaw and operated education in the country (Sangnapaboworn, 2007). During the reign of King Chulalongkorn, education flourished and expanded to the provinces and countryside. In 1917, the first institution of higher learning, Chulalongkorn University, was founded. The purpose of the institution was for recruiting and training the bureaucrats and social elite needed to oversee the new social order. As education grew, so did the economy. Changes brought about through modernization and globalization saw an increase in employment pertaining to the manufacturing industry, at the expense of agriculture. The structural growth fed the demand for more schooling and education, which in turn supported the growth of labor productivity (Michel, 2015).

Thus, primary and secondary education became focused on preparing the population to becoming cogs in the larger mechanism that would strengthen and drive the national economy. Another function education would serve as was in the assimilation of the population towards forging national homogeneity and identity. In forging this national identity, or 'Thainess,' cultural and ethnical differences took a back seat to a policy of nationalism. This nationalism permeated every aspect of the education system, with the three pillars of Thailand's society (Nation, Religion, Monarchy) being instilled within every student (Feigenblatt et al., 2010). That led to a view of history that omitted indigenous and ethnic groups within Thailand, as they had no standing in the curriculum or narrative of history chosen by the central government. Students were taught a curriculum that went hand in hand with the central

government's views of past, present, and future. With education being so closely knit with political and economic development, the current curriculum favored those living in the urban city centers which led unequal development throughout the nation.

In remote areas and provinces, development to aid economic growth were paired with education. Indigenous peoples living in villages such as the hill tribes, who's education historically consisted of informal teachings that prepared them for subsistence livelihoods, were suddenly faced with a new learning system and institution (Mulder, 2000). Public schools were built in the villages and the national curriculum was taught. The indigenous children were thus taught a curriculum and history in which they were invisible, and in a language foreign to their own. This did in fact prove to be effective in the assimilation of the youth into dominant national culture, but it also alienated the younger generations from their own culture, history, and from the older generations (Feigenblatt et al., 2010). Thailand is such a multicultural nation, and it is the unique cultures within Thailand that stand to lose the most through the gradual erosion brought about by national education policies.

Efforts to decentralize have been made over the years. The 1999 National Education Act was aimed at reforming the educational system. Its goal was to achieve the ideals of Education for All and All for Education. The act extended compulsory education from six years to nine years, requiring children aged seven to enroll in school until the age of sixteen. The act also made provisions that authorized institutions to provide formal, non-formal, and informal education. What was important was the continuous development of the quality of education provided. Article 9 of the act stipulated that the principles of education operation and its management be a collaboration between individuals, families, community organizations, private organizations, professional bodies, religious institutions, enterprises, and other social institutions. This was in order to decentralize the administration of education in schools, and required a school council in every school to supervise the management of education in the school

(Sangnapaboworn, 2007). During this period numerous universities became autonomous institutions. In effect, the education system became more decentralized, and was split up into 175 different local education service areas. Schools were allowed to design their own local curriculum, one which reflected their community's needs, culture, and wisdom. However, no support or guidance was given beyond this, and teachers and administrators were undertrained and underprepared to implement it.

4.2 Rethinking indigenous children's education in Thailand

The researcher had the opportunity to sit down and talk with Ken Kampe, a lecturer at Chiang Mai University and professor at the university's Education for Development program. He is also an expert on indigenous people's issues, having lived in Thailand and worked with them for over 40 years. When asked about the current state of education for indigenous learners, he gave several reasons for the poor results. The Ministry of Education had been through several national educational reforms in the past 40 years and none of them have come any closer to improve the situation. He pointed out the singular curriculum for the whole of Thailand as an obstacle, and without any incentive to change that, policy makers were not like to go beyond giving the impression of change. Realistic opportunities remain small for indigenous learners in a system biased against them. Another obstacle identified was the Thai concept of oneness, or Thainess. The idea that Thailand has to be a nation state with one language and one kind of people does not allow any space for diversity.

On other options for schooling, there are alternative education networks that have been trying to drive alternative education in Thailand for more than 30 years but those are still happening slowly. The principle is to promote the potential of diverse learners to have a better quality of life. The new educational law seems to be saying all the right things, but that is as far as it will go. Most of the law is about education in actual

schools, so even though alternative education is talked about, there is still a lack of tangible results.

Distance learning or informal schooling has to be approved by the regional education authorities, which also still require standard testing. But approval depends on the people in charge of the region office, and some of those offices are against distance learning, arguing that no formal schooling would be depriving the child of socialization opportunities. In 2010 the Alternative Education Network was established to promote better quality education and better opportunities. The network is pushing for realization and of the education reforms through means such as research on proposals, criteria and methods for the implementation of core curriculum in schools (AEN, 2019).

On indigenous knowledge, the professor said that knowledge transfer was becoming more and more difficult as the youth are caring less and less, a likely byproduct of a state curriculum that undermines indigeneity.

4.3 Alternative education movement in Thailand

There are instances and forms of alternative education currently being run in Thailand. Other than the previously mentioned schools in the rural communities run by IMPECT, other prominent instances worth looking at are Moo Ban Dek in Kanchanaburi province and Roong Aroon School, located in the outskirts of Bangkok. Moo Ban Dek is a learning center that provides a platform for disadvantaged children to receive an education though an alternative approach to education that aims to link the head, heart, and hand. Children at the center live harmoniously with nature and are encouraged to create a self-dependent community and environment. Some of these practices include growing their own organic food, using clean solar energy, using biomass stoves for cooking, and using recycled paper (Moo Ban Dek, n.d.).

Started in 1979, Moo Ban Dek, or Children's Village School was founded to aid at-risk children. The school is registered under the Ministry of Education and provides education for children from kindergarten till sixth grade. After sixth grade, children are encouraged to pursue further studies with the Informal Education Program through the ministry of education. The children are those coming from poor or broken families, as well as those with no parents. Funding for the school comes from Foundation for Children, which is a Thai non-profit organization. The funding enables the school to provide free education and board for the children who study there (Moo Ban Dek, n.d.).

The school is based around principles of alternative education. It is their belief that a good educational system must accept, understand, and respond to various learning differences and personalities. The foundations are based around four main principles: 1) Local management of education 2) Participation 3) Independence 4) Equality. This philosophy stems from the belief that all children have the right to education, even education that differs from that of the state's curriculum. In directly addressing the needs, skills, and interests of the different students, they are able to develop members of society who contribute to the community. To do so, it is important to work with the government to remove obstacles that prevent the children from fully participating in society. Government can help by supporting the local and independent management of education and give the alternative education programs freedom to develop their curriculum, polices, and philosophies. That is where equality needs to be applied, as alternative education schools must be awarded the same rights and status afforded to schools run by the government and private sector (Moo Ban Dek, n.d.)

Another case in the movement for alternative education in Thailand is Roong Aroon School, located in Bangkok's Bangkhuntien district. It is a private, non-profit organization and was started and accredited in 1997 and has students from kindergarten up through twelfth grade. The philosophy of the school is one of holistic

learning in which students are encouraged to learn and be creative in a more natural environment to reach their individual learning potential. Learning is undertaken both indoors and outdoors, with regular off-campus field studies taking place. Here, holistic education and cooperative learning in a stimulating attractive environment is emphasized and is heavily based on Buddhist principles. The aim is to not only educate the learners, but to nurture and encourage goodness in the youth, and develop them to be adults who can in turn develop and better the country and society (Roong Aroon, n.d.). From kindergarten until secondary school, teachers stimulate learning in the children through active learning in nature and daily activities. A large component is project work, in which the learners practice their problem-solving skills through deep and communicative learning. Unlike Moo Ban Dek, Roon Aroon is not geared towards at-risk and disadvantaged children, but rather at children from well-off families looking for an alternative to the mainstream curriculum taught in government and private schools.

Both these situations differ from the situation of the Moken and Chao Lay children in the south, but their philosophies and principles can be learned from and applied elsewhere.

Chapter 5: Results and analysis

The content presented in the following chapter contains the outcomes of the various interviews conducted. The results are expected to aid in establishing a viable overview of the current situations of Moken children in various educational contexts. The data contains the viewpoints of those stakeholders living within the communities as well as those of the educators and outside agencies who have an interest in seeing the development of education within those respective communities. This overview and analysis of education-related issues relevant to the local communities will be vital in building a foundation for recommending appropriate approaches towards the realization of sustainable and inclusive education.

Due to the limited preexisting data available on education within Moken communities and Moken people's expectations and perspectives on education, it was important to collect first-hand data via interviews. The interviews explored the situation of Moken children's education in three of the main communities visited as well as Moken attitudes towards education. Through reviewing literature and past studies of scientists and anthropologists, Moken ways of knowing, knowledge retention, and transmission of knowledge was also explored. Data gathered from these sources and experiences enable a clearer view of possible alternate approaches for Moken children in education, particularly in the line of integrating indigenous knowledge into formal education.

5.1 Situations of Moken children's education in Thailand

In terms of basic primary education, access is not an issue for the Moken. In every community visited or interviewed, there have been primary level schools in or near the village. These schools range from public government schools to non-formal learning centers, with support from both governmental agencies and foreign and national NGOs. With the relative ease of access to these schools, questions are raised

regarding the low attendance rates. Attendance rates at these schools remain low, with one school reporting attendance of as little as fifty percent of the school-age children within the community. This becomes evident upon visiting the communities, as you can see children of all ages running around and playing on any given day. For students that do attend school, consistency is an issue. Teachers report that students attend very sporadically, some children disappearing weeks on end before coming back and joining the class. This reflects the easygoing demeaner of the Moken people, who have always come and gone as they pleased. Such inconsistency in attendance does make it difficult to keep track of the students and breaks the continuity of the child's learning.

The schools themselves are what one would expect from village and small-town schools. Under-staffed and under-funded, the teachers do what they can for the children but are not paid enough to go above and beyond their core responsibilities. Depending on the location, the Moken children either study in a Moken-only environment or a mixed ethnicity environment. Coming from an indigenous background where their mother-tongue is different than the national language, there is a steep entry and learning curve in their early years in the educational system as schooling is done all in Thai. At home, Moken children will generally speak Moken with their parents and do not learn Thai until they enter school.

In order to get a better scope of the various educational settings in which Moken children in Thailand find themselves, several Moken communities with differing conditions were studied. In Koh Surin, there was an isolated fully Moken community with students attending a non-formal learning center. In Koh Phyam, there was a Moken community with some outside Thai influence. The students study at a Christian-run learning center during their early years, then transition to the local primary school which is mixed Thai, Moken, and Burmese. A third community

located in Rawai Phuket was visited. This was a mixed community Urak Lawoi, Moken, and Thais living in close proximity of each other. The cultures of the Chao Lay groups had become diluted with the influx of Thai and foreign influences into this touristy area.

Other than those three main sites that were visited, interview data related to indigenous education was also collected from teachers, students, and organizations operating in several other parts of the country. The table below lists the schools visited or teachers/students interviewed. The analysis was focused on situations of Moken children's education on Surin Island, Phyam Island, and Rawai.

The other relevant communities studied include those centered around Ban Koh Adang School, Koh Lipe. The community around Ban Koh Adang School are not actually Moken, but are Urak Lawoi. The teacher interviewed was an Urak Lawoi Chao Lay who had been teaching there for the past ten years. She teaches in a school where a mixed curriculum is taught, and she teaches indigenous knowledge classes to the children. She was able to give insight and knowledge about education for indigenous children and the potential and benefits of teaching students indigenous knowledge not found in mainstream textbooks.

The results of the interviews and studies and interviews showed various barriers to education that went beyond just access to a school and education. There were many social and economic pressures that kept children out of school or made them not to go. These pressures came from both external and internal sources. For internal factors, there were barriers both from the children themselves and also from their parents. As education is not seen as a necessity and as more of a luxury, that notion had been expressed by parents and the children take after that as well. Also, the style of education and learning taught in government schools are foreign to them and their traditional ways of learning. This makes it difficult for teachers to relate to and meet

their needs, as they are not familiar with the backgrounds of the children and expect them to learn the same way Thai children in public schools do. Their differences also make them stand out among their peers, who constantly remind them that they are different and are part of the "other." All these issues and more have been attributed to reasons why the children do not continue in school. Figure 6 below visually represents the various issue and barriers as expressed by students, parents, and teachers interviewed.

Figure 6

Factors and barriers to education

External factors/pressures

Ethnocentrism in classroom/school/local settings

Teachers
-Don't understand local culture
-Rural teachers not always fully qualified

Centralized education
-not relevant
-different learning system/values
-Not in native language

Distance from school
-long commute
-boarding away from home

Parents

-Not supportive of education
-Pressure to work/generate income
-Substance abuse copied by children

-Lack skills/knowledge to help children with schooling and inspire higher learning
-Moving around often leading to lack of continuity in education

Internal factors/pressures

-Lack of confidence
-Lack of role models
-Lack of examples

-Not familiar with school/class setting

-Easily lured/addicted to frivolous activities (smart phones, games, substances etc.)
-Prefer quick/easy money making than long-term training/commitment

-Lack of classroom learning skills/concentration
-Short sighted due to lack of experiences/exposure

Children

5.1.1 Situations of Moken children's education on Surin Islands

Before formal education came to the island, the Moken children had been receiving knowledge and education from community members through informal means. Knowledge transfer for Moken had always been through means of oral instruction, observation, and experience (Arunotai et al., 2007). From an early age, Moken children are encouraged to explore, observe, experience, and practice the different skills they would need later on in life. All knowledge was passed down in this manner as the Moken have no writing system in which to store and share their collective experiences. Because of this, the Moken are acquainted with the hands-on learning style, and tend to be more kinesthetic learners. The current school on Surin Island has been in operation since after the 2004 tsunami. Formal education actually came to the Surin Islands in 1995, when volunteer teachers began teaching the Moken children at Suraswadi School on the island.

Figure 7

Source: Google Maps

Short history of the school

Suraswadi School was in operation from 1995 until 2004, the year of the tsunami.

While it offered a formal education to those living on the island, no student elected go on and study past the fifth grade. After the tsunami hit and the village was relocated, the current school was established. It was set up by the ChaiPattana foundation (a non-governmental organization that aims to provide prompt, timely and necessary responses to problems affecting the Thai people through various development projects) in co-operation with the Khuraburi Non-Formal Education Office, the Surin Islands National Marine Park, and the Khuraburi District Office. Initially two teachers were hired to teach basic literacy and numeracy, and now currently there are four full-time teachers living and teaching on the island.

As the school is set up as a primary school, options for higher education remain limited. Students that may want to receive a higher education would have to move to the mainland and attend one of the high schools there. Socially and psychologically, this is a daunting prospect for Moken youth as they would feel lonely and isolated away from their communities (Arunotai et al., 2007). Financially, most families would find it difficult to support a child living away from home in a dormitory on the mainland, and so would require financial aid in the form of scholarships in order to pursue higher education. To this day, there has yet to be a high school graduate from the Surin Islands Moken community. The Moken community on the Surin Islands currently numbers 80 families living in the village. The population totals around 300, 80 of which being primary school age children. Of those children, only about half actually attend the school and classes on a regular basis.

Teaching and curriculum

The school on the island is not run as a regular school, but more as a informal learning center. The four full-time teachers teach basic literacy, numeracy, and life skills to the children of varying ages. One of the teachers is a Moken from a different island. She

now resides on Koh Surin with her family. Even though there is no high school on the island, she did say that the teachers are willing to open up a seventh, eighth, then ninth grade if needed. But so far, not many students have expressed interest in studying beyond sixth grade. Most of the students drop out of school at sixth grade or before, and the highest completed grade by anyone on the island is mathayom 1, or seventh grade.

One benefit of having a Moken person on the teaching staff is that she is able to communicate with the children in their mother tongue. This has been helpful as she is able to teach the kindergarteners in their mother tongue and gradually ease them into the teaching in Thai as they learn the Thai language. None of the other three teachers speaks Moken and the children only learn Moken at home and so learning the new language is a must. There is no particular curriculum or structure to the teaching. The teachers choose what is taught to the children by picking different textbooks that they feel will be easier for the students to understand. The students still take standardized tests to gauge their aptitude against their peers on the mainland. It would be unfair to hold them up to the standards of those children on the mainland, as the Moken had entered the formal education system just barely twenty years ago. The teachers are more focused on teaching the children the Thai language and basic literacy than on test scores. Rather than delving deep into academics and different subjects, the focus is on imparting life skills needed for future employment and skills for entering society.

Moken students understandably test below the national average, but there are some subjects in which they can keep with the national averages. Earlier this year, two second grade boys from the island school won a national story telling competition for students studying under the Office of Non-Formal and Informal Education. They were able to go to Bangkok along with their teacher and receive the prize at Chulalongkorn University. Multimedia is an avenue in which the teachers are exploring to teach the

children. They sometimes play educational programs on the TV to show students the world beyond the island.

An issue that hampers education in the school island is inconsistency, both on the teacher's part and on the students' part. On the part of the teachers, sometimes they are gone from the island for periods at a time. Either for meetings on the mainland, for teacher training with the district office, or to visit their families. This leaves the children without teachers, sometimes for a couple weeks, and so they do not go to school and play around the island. As for the children, sometimes their family will move to Myanmar or other islands for a period of time for work or family reasons. When they return to the island, they are behind their peers academically. These breaks and lapse in continuity seriously hampers the education and learning and so the children do not get as much out of schooling as they perhaps would have.

One teacher noted that what the students lack are positive role models when it comes to education, as children generally emulate when they see at home and within their community. As Moken women no longer engage in their tradition roles of foraging and gathering, they have a lot more down time, and many resort to gambling to pass the time. The children see this, along with the tobacco and alcohol abuse that is common around the village, and sooner or later follow suit. Young primary school age children can be seen playing different games such as dominoes for one and five baht coins.

As mentioned previously, the children generally stop attending school after the sixth grade. There are many different reasons for this. At this stage, most of them are in their early teens and leave school to start working rather than pursue further studies. Often it is due to family pressure to start work and help support the family. The teachers all noted that parents do not encourage children to pursue higher education, but would rather see them start working and start a family. Also, when the children see their

friends who have left school to work start making money and buy nice things, they are eager to start working and make money for themselves as well. For boys, these jobs are usually menial labor jobs at the Surin National Park or on speedboats belonging to tour agencies. For the girls, they either go work at the National Park or make necklaces and souvenirs to sell to tourists who come to the village with the tour boat companies.

During high tourist season, the village gets visited by speedboats full of tourists throughout the day. Selling souvenirs has thus become a source of income for the families in the village, and they sell handicrafts carved from wood or woven from pandanus leaves. As these souvenirs bring in a considerable income, many mothers have their children help them sell the souvenirs rather than go to school. To face the challenge of having a lot of students absent during the tourist season, the teachers came to a compromise with the parents. They agreed to send their children to school on the condition that the teachers would release them when the tour boats come to the island in the afternoon. When the tour boats leave, the children then return to their respective classes. The teachers on the island do not see selling necklaces and trinkets as a viable sustainable option for the Moken however, as they can only be sold during the high season during which the island is open. During the monsoon season when the island is closed to tourists because of high waves, the Moken are without income from the tourism industry. Rather than being overly reliant on the income from tourists, the teachers believe that the Moken should find sustainable jobs that they can do year-round.

Changing times

Talking to the elders and knowledge holders in the village, there are those that would hold on to the old ways given the choice. With the shift of livelihoods and lifestyle happening only several decades ago, those who still remember the old days of nomadic living miss them. They lament the weakening of the Moken identity, and the

concede that the younger generation will be out of touch with their roots. The gradual ebbing away of the Moken lifestyle and identity has been well documented. One of the elders in the community stated:

> "The old ways of doing things are disappearing and being forgotten. Our ancient livelihoods and ways of knowing. Moken do not know how to make kabang (traditional boats) anymore because of laws restricting us. The young men want to make boats like in the olden days but are not able to. There are very little opportunities for old practices. In the old days, to marry you had to show you can make a boat – it's your house." (Feb 1, 2018: Surin Island)

Of course, in today's world, hanging on to traditional ways and refusing to adapt to changing times is not plausible. But it is important that people are not made to leave behind the core of who they are to accommodate modernity. Now traditional knowledge holders are becoming scarce and are aging, and the wealth of indigenous knowledge and wisdom accrued over generations disappearing is a very distinct possibility. When asked if these skills and practices could be passed down in the classroom setting, the elder said it was not feasible as these things had to be learned the way Moken have always learned things: through hands-on experience outdoors in nature. He bemoaned the fact that Moken today are losing touch with what makes them Moken, and that their identity was being lost through the influx of outside influences such as technology.

Life skills and practical knowledge

At the school, the primary goal is to equip the students with life and vocational skills. Taking their backgrounds and employment opportunities into account, the teachers know they do not have many years to work with the students before they leave school and join the workforce. In the brief time they have with the students, teachers hope to instill not only basic life skills but also a civic sense that would enable them to be

responsible members of society. This is important, especially for those that would look to enter Thai society. The nurse stationed in the village noted that education is the key to improving the all-round standard of living in the village. She pointed out that hygiene, both personal and general, is something that she has had to constantly teach the children about. Instilling a sense of personal and social cleanliness has been just as important as teaching children to read and write.

For centuries, the Moken had lived harmoniously with nature, living off the land and sea in a sustainable manner. Waste was never an issue because everything they used was from nature and thus biodegradable. However, with the introduction of non-perishable goods and food items from the mainland that came in plastic and aluminum packaging, the new issue of waste management arose. Trash from food and drink packaging can be found littering the ground all around the village. Moken now had to learn that things can not just be thrown out anywhere after use but should be thrown in the trash and collected because unlike plants or trees, they do not naturally degrade. This is still a big issue that needs to be dealt with and can be rectified through education. This lack of social etiquette is another thing holding them back from being accepted by Thai society, making them reluctant to leave their village and communities.

In the village they live freely, unbound by rules that would otherwise be imposed on them by a "civilized" society. Children still run around the village naked, and it was not until recently that restrooms were built in the community. This freedom from restrictions creates a barrier to entry into Thai society. Moken that have tried living or working on the mainland in Thai communities do not feel comfortable with all the rules and restrictions to what they can or cannot do. They find it better to be living in their village where they are free to do whatever. The nurse pointed out that even if the Moken would all prefer to remain in the village, the truth was that although the population of the village keeps expanding, the amount of land allotted to them by the

national park to live on would not expand. Education and training are then the best tools to equip young Moken to be a part of a society beyond their village. Not in order to force all the youth out of the village and into Thai towns, but to prepare and equip them so that if they were to choose to enter and work in a Thai setting, they would not be at a disadvantage. Vocational training and academic schooling should both be encouraged, as the teachers believe that the children have the ability to learn, they just need to be properly taught and encouraged.

Technology, media, and electronic games.

Technology is a double-edged sword. While it can bring connectivity and instant knowledge to our fingertips, it can also lead to addictions and antisocial behavior. The Moken are now experiencing both sides of this as modern technology and gadgets have made their way to the island. With the availability of low-budget smartphones and tablets, many Moken families now have access to these devices and the bad and good things that they bring. Cell phone use runs rampant throughout the community, with children hooked on the different games, movies, and modern music. All this even without a cell phone tower in range of the village. With plans in the works to build a cell phone tower near the community, handheld device use will only be amplified. The teachers note that many children are already addicted to games, and some do not come to school but rather stay home and play games. Technology has the potential to drastically speed up the previously gradual erosion of the Moken culture and identity. The elders bemoan the fact that their children are already forgetting their culture, rejecting the traditional songs in favor of modern pop songs. The addictive potential of smartphones has already been discovered by their peers on the mainland, and now the Moken children on the island are going through the same thing. Some redeeming qualities that technology brings are educational aspects and things media can teach. Moken children are starting to see and question the bigger world outside their island and are also gaining more understanding of the Thai language and society though watching Thai TV. If moderation is practiced and technology is used for learning and

educational purposes, it could be a helpful tool. Sadly however, as it stands that does not seem to be the case.

IP knowledge

Much has been said about indigenous knowledge and learning systems. In addition to being core to the Moken identity, knowledge preserved and passed down within Moken communities instills a respect and connection with nature that mainstream education can not. According to the elders, when it comes to this traditional knowledge, Moken youth know very little and show very little interest in learning. The gap between the generation that grew up living a nomadic life on the kabang boats and the present generation that are growing up living a sedentary life in the village is growing wider. The change in lifestyle inadvertently brought around a change in social structure, and the influence of traditional knowledge holders and elders has been in constant decline. As it stands, there is currently no leader in the village in the traditional sense. The elder and shaman is no longer respected by the Moken community, and so ownership and delegation of responsibilities is nonexistent. Without initiative being taken, the transfer of indigenous knowledge is left neglected. Traditional customs and ceremonies are also being neglected as the youth do not see the value of such, but both adults and teachers at the school see the value in preserving it. It is through such learning systems that the Moken were able to learn how to navigate without any instruments, how to read the phases of the moon and how it correlates to the tides, and how to react to natural disasters such as tsunamis. This knowledge set also include everyday and medicinal uses of herbs and plants in their vicinity, and efforts are being made to preserve this knowledge.

The Moken teacher on the island believes that the Moken children's cultural identity should be reinforced in school. She has been putting effort into teaching the children Moken songs and dance in addition to the core curriculum, and the children have shown interest although they are shy and do not have confidence to perform. But the

more they are instilled with pride in who they are and in their background, she
believes that they will grow to be more confident. As for the indigenous knowledge,
effort has been made to bringing a community elder to share the knowledge and
experiences with the students.

5.1.2 Situations of Moken education and learning on Koh Phyam

The situation of Moken living on Koh Phyam in Ranong province differs from those
living on Koh Surin. It is important to look at different communities and experiences
to get a broader perspective of all the issues and challenges facing the Moken in
Thailand. While differences from community to community are expected, it's what
they have in common that is of intertest in order to draw results and conclusions. The
Moken community on Koh Phyam numbers around 80 to a hundred people. Compared
to Koh Surin, Koh Phyam is far more developed as it is less remote.

The Moken were the original inhabitants of the island, but they now share it with
numerous resorts and developments. Because tourists come to the island for the nice
beaches and clear blue water, all the nice locations have been taken by investors to
develop tourism facilities like resorts and bungalows. As a result the Moken have been
relegated to the less desirable area of the island which has not received any of the
development seen by the tourist areas.

Figure 8

Source: Google Maps

Even though the Phyam community is smaller than the Surin community, it has the advantage of not being situated in a national park. There are less restrictions and more opportunities for the locals living there, who also benefit from two NGOs working with the indigenous community on the island. These NGOs are (1) All for Villages and (2) STAMP, both are international organizations working together towards the development and empowerment of the Moken community on the island. The second of the two organizations, STAMP, is a Christian organization, with a South African missionary (hereafter NGO worker 2) living in the Moken village with the community members. NGO worker 2 has been in the village for seven years and recounts the situation of the village when he first came:

"When I first came to the village, the hygiene and cleanliness of the kids was very low. Children were dirty and running around wild, I just wanted to help them. The children were not attending school because it was far for them to walk and no one was pushing them to go." (Feb 10, 2018: Phyam Island)

The other volunteer interviewed (NGO worker 1) was affiliated with All for Villages, an NGO based out of California. The two NGOs have partnered together to help educate the Moken in the village and run different projects in order to develop and improve the lives of the indigenous people of the island.

Schooling and experiences

The school in question is Ban Koh Phyam school. It is a government school on the island and goes up till ninth grade. The school serves all the children from the different communities living on the island, and so the students come from mixed backgrounds. About half the students are Thai, a quarter of them are Burmese, and a quarter are Moken. Unlike the school on Koh Surin which is all Moken, the children here have to deal with discrimination and the social stigma that comes with being indigenous. This discrimination comes in various forms, not just from other students but also from school administrators and parents of Thai children. According to NGO worker 2, the parents of the local Thai students do not want to see their children mixing and mingling with the Burmese and indigenous children and keep them separated as much as possible. Sentiments like this only serve to highlight and perpetuate the divide between the students and as a result the students usually just stick with their own people group when at school. Both NGO workers highlight the difficulty of keeping a working relationship with the school and teachers when there is such a high turnover rate for school directors and teachers. They mentioned that several years ago, the school had a great director who was on board with what they were doing and was all for helping accommodate the Moken children. However, when the new director came in, she did not understand why these international

organizations were so keen to help the Moken in education as they would always be fishermen like their parents. It is also difficult to have continuity with teachers as many do not stay on the island to teach long term. Many of the teachers are not fully qualified as they are teachers in training, and return back to the mainland after a one or two year commitment. Essentially, the teaching position at the school becomes stepping stone before they get transferred to a city school.

The underlying goal of both NGOs is to empower the Moken to help themselves, aiming to achieve this primarily through education. Early childhood development and education has been identified as a need for the Moken children, as they struggle with entry into Thai school when they're young. Although they live in a community that still has outside Thai influences nearby, they still live and grow up within a Moken village and do not have the background and support their Thai peers may have. Many Moken children find integration into public school difficult and because of negative experiences in school, leave and never go back. In order to aid in the education of Moken children, the Christian NGO set up a Moken Learning Center in the village where the children could learn in an informal setting. At the center, the young children are able to attend during their kindergarten and early primary years. They are taught the Thai language as well as basic alphabets and numbers. They leave the learning center and join the public schooling system when they are deemed adequately prepped and at the level in which transition into the school would not be a huge shock. Every morning, the children currently attending the
Thai school are driven to the school by NGO worker 2. The children studying at the center range from six to fifteen years old, as the center also takes in and educates those students who tried to integrate into the Thai school but absolutely could not.

The NGO workers noted that if the school administrators and teachers put more of an effort into understanding the background and situation of the indigenous learners and accommodated them, the public school setting would not be so daunting for the

students. Teachers should try to understand and respect the culture of those children and accept them for their differences. Instead of shaming them in front of their peers, more sensitivity is needed. Staying in school is made even more difficult as the present director wants to raise the standards of the school, as well as raising the average standardized test scores. This makes learning difficult as NGO worker 2 explains:

> "It's difficult enough for them just to sit down in the classroom, most of the Moken kids are just surviving in school. Now with the focus on testing scores to raise the standard of the school, it's too difficult for them. You have to push them harder and then they are more likely to run and not come back to school. Teachers are trying to help but it is difficult with the difference in culture, teachers want them to be like the Thai students but they can not be like the Thais, they are Moken. This creates a lot of tension." (Feb 10, 2018: Phyam Island)

Even so, he does want them to keep persevering in the public school. He wants them to get exposure to other cultures and be a part of society rather than live in the Moken "bubble" and only interact with their own people. He notes that one the main obstacles is that the Moken do not have confidence in themselves:

> "The biggest problem is they cannot believe they can do it, the struggle is in convincing them that they can do it. They do not believe in themselves. Years of having people saying they are nothing has led to a society-influenced negative self-worth. Because society says it bad to be Moken, its bad to be different." (Feb 10, 2018: Phyam Island)

Around twenty to twenty-five Moken children attend Ban Koh Phyam School. Despite the challenges, they still persevere and are encouraged to continue by the teachers from the NGOs. After ninth grade, students that wish to pursue further education have to go study at one of the high schools on the mainland. There are several dormitories for Moken children to stay being run by Christian missionaries, and so in that sense they have a better opportunities than the children on Koh Surin. But similar to the situation on Koh Surin, the children lack role models in education to look up to. It was noted by NGO worker 1 that an educated Moken that came back to give back to their community would be a huge inspiration to the children to study. From her experiences teaching and tutoring the students, she noted that if you are patient with them and focus on their strengths rather than on their weaknesses, they have the ability to learn and keep up academically. She was hopeful for one student in particular, who is excelling in her studies in the ninth grade. That students hopes to complete her studies and come back to her community as a teacher.

Experiences of the students
Several Moken students were interviewed regarding their perspectives and experiences with the learning center and school on the island. Student 1 is a sixteen year old student in 7th grade. He studied at the Moken Learning Center until second grade, after which he made the transition to third grade in the government school. At the center, he was able to learn Thai, math, and English with the teachers. He credits the center for helping him to test into third grade at the school, and in his experience did not face any challenges transitioning to the Thai setting. Currently he is studying at one of the schools on the mainland, Satree Ranong. He is living in a Moken dormitory run by American missionaries called Moken Home, where currently thirty-one students are living and attending school. Many Moken still dropout on a regular basis and return to the village, and at the time of the interview five students had recently gone back having not been able to handle it. But from the children's home, two Moken have graduated from high school and have gone to work in the town, one

as an electrician and the other opening a shop. For the most part though, the Moken youth would rather start working than complete high school. Student 1 stated that he wanted to finish ninth grade and then go look for a job.

Students 2 and 3 had different experiences in their transition to the public education system. Student 2 and 3 are both fifteen. They mentioned that before NGO worker 2 came to the village, Moken children did not go to school. It was far and they'd have to walk, and often they would wander off on the way to school and not go at all. They were attending second grade in the government school but their experiences were not too positive. It was hard for them to understand at first. They were behind linguistically as they only spoke Moken at home and did not have a firm grasp of the Thai language. When they were in first grade, they were much older than their peers because of their slow start into education. They were placed with classmates that were three to four years younger than them and this was a source of embarrassment. They were ashamed to be so old but put in classroom with those much younger. They also noted that they were teased for being Moken by the Thai students, and still face issues of discrimination to this day. They refused to return to the school but rather chose informal schooling with the Learning Center. At the center they were able to learn to read and write as well as to do mathematics. However, they have no intention of further and higher studies, having completed the standardized testing at sixth grade level. They both expressed how they prefer to learn by doing rather than learning in the classroom setting, stating they did not get anything from the public school setting as many times the teachers would just turn on the TVs and let them watch rather than teach. The teachers did not understand the Moken children and culture, and so could not connect with the students. The lack of education of the parents also meant that they could not help with any homework or questions the children may have had.

Education prospects

Similar to the situation of the Moken children on Koh Surin, Moken children on Koh Phyam generally do not want to study. They find school irrelevant to them and thus boring, and all the while the face discrimination from their peers and those at school. Once the boys reach thirteen or fourteen, they usually go off in search of work. Most of them are not interested in going to the mainland and staying in the dormitory for high school as they also do not want to be far away from their families. Those that have gone on to high school on the mainland generally do not come back according NGO worker 2:

> "Most of the children that go study on the mainland never come back. Of course I want them to study but I do not want them to disappear. I would like to see them come back and give back to the community. But instead they find jobs on the mainland as welders and electricians after training in trade school." (Feb 10, 2018: Phyam Island)

NGO worker 1 shared about a project in the works. This initiative was a new school on the island registered with the Thai government that would provide an alternative to the school currently there. While not only for the Moken children, it would be geared to helping them succeed. The model would allow free admittance and tuition for Moken students: for every 1 paying Thai student, 1 Moken would get in free. The school would incorporate and teach things that can lead to sustainable futures and jobs. While the project was still in its infancy, it did sound like a promising option.

Life skills and IP knowledge

Traditionally fishermen, the Moken of Koh Phyam have had to look to other means of income in recent years. Trawlers sweeping the surrounding sea have made sure that they cannot rely on the limited catch alone for their livelihoods. Moken have for

centuries taken just what they need, hunting and gathering from the sea in a sustainable manner. Today, commercial trawlers with increasingly more efficient ways to fish on a large scale have decimated the fish and prawn populations in the area around the island. Unable to compete with the dragnets, the Moken fishermen have seen their catch decrease over the years to a point where the cost of the gasoline used to go out to sea and fish is not covered by the catch. The Moken have then had to turn to other means of income such as unskilled labor jobs or working on other fishing boats. Some of the women work in the resorts on the islands as maids and other similar jobs. While Moken men might work on speedboats on other islands, the boys mentioned that there are no Moken on speedboats on Koh Phyam. They stated that the local speedboat owners do not like the Moken and so do not accept them for employment, yet another instance of discrimination through no fault of their own. NGO worker 2 noted that realistically, the Moken will not move very far from the sea even for work in the future. They have an inherent connection to the sea and are only fully comfortable and at home when they are out at sea. He also observed that they have a vast knowledge of the sea that seems almost second nature and that the children and young ones were naturally picking up as well.

To nurture this quality and also increase the prospects of the students livelihoods, the NGO procured a long tail boat that the older students are able to use. So far, student 2 and 3 have been using it to take tourists out on tours. They are able to take tourists out fishing and sight-seeing around the island. Through this they learn responsibility as they are in charge of taking care of maintenance and overhead costs with the money they make from the tourists. Student 2 bemoaned the fact that they actually did not know the good places to go take the tourists to catch fish as it was the older Moken that had this knowledge. NGO worker 2 noticed that the Moken were fast learners when it comes to showing them how to do things. He states:

"They learn and pick things up very quickly outside the classroom. Moken are hand-on people, the moment you teach them how to do something, they learn immediately by experiencing it. They learn by doing, you just need to show them an example once and they can do it." (Feb 10, 2018: Phyam Island)

Proof of this can be seen in the different extra-curricular activities that NGO worker 2 has initiated with the Moken children outside of school. An example of those is teaching the children how to surf. Because the Moken are naturally adept at everything involving the sea and are fast learners, the children picked up surfing at an impressive rate. They were able to quickly master surfing and were soon competing in national tournaments in Phuket, even winning some of them. Surfing tournaments now ask the Moken boys to come and be judges for some of their competitions. Things like this instill a sense if self-confidence within the youth and goes a long way to increasing their self-worth and how they view themselves. He also taught them SCUBA diving which they picked up with ease. The reasoning behind teaching these extra skills is to broaden the Moken student's perspectives and opportunities. So that if some do choose to be surf instructors, that option is available to them. And if some want to be dive instructors, they are qualified to do that too.

While imbuing the youth with new experiences and opportunities, NGO worker 2 also recognizes the value the students being connected to their identity and their roots. The young Moken students are at a junction in which they risk going forward and leaving their culture, language, and identity behind. With the Moken culture in limbo, NGO worker 2 is trying to record the Moken language and culture down into books so that they can teach culture, stories, and language to future generations. On the weekends when the children are not in school, he takes the students out to try and explore their culture and learn from an elder who goes out with them. As difficult as it may be, intentional effort is being made to retain the Moken identity.

5.1.3 Situations of Moken children's education and learning in Rawai

The Moken community in Rawai, Phuket, is the smallest and poorest of the communities visited. There is no Moken village here, rather, the Moken here live in the Chao Lay community on Rawai Beach, alongside Urak Lawoi who are the majority in the area. The Moken live in the western side of the Chao Lay quarters, which also happens to be the most crowded and run-down. Their houses are ramshackle units made out of an assortment of scrap tin roofing and whatever materials that could be put together. The transition to a sedentary lifestyle was not kind to this community, and they eke out an existence selling fresh seafood in seaside stalls to tourists that visit the area. This Moken community is not isolated but rather lives in a tourist hub, directly in contact with several other communities. This community is the one that is furthest from traditional, but it is worth looking to see how the educational situation compares to the more remote island communities.

Figure 9
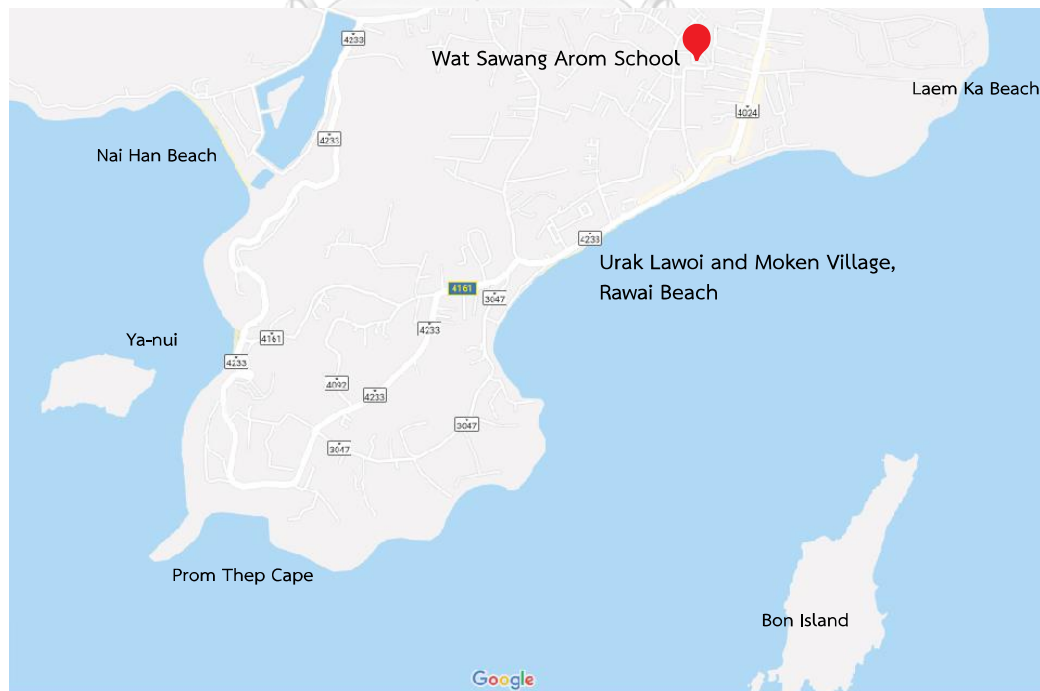
Source: Google Maps

Schooling and experiences

Two Moken parents in the community, parents 1 and 2, along with an Urak Lawoi elder were interviewed in order to compare the situations of the two Chao Lay groups living side by side. The children that live in this area attend the nearby school that is till ninth grade. This school is called Wat Sawang Arom School and has a large number of Chao Lay attending. The demographics of the school are Thai ,Urak Lawoi, and Moken. Like the other schools and communities, education remains low, both in attendance and in level of attainment. Most students study only up till sixth grade, few go up to ninth grade but then do not pursue any further education. Even though the high school is not very far away, no Moken has gone on to complete twelfth grade. As for the Urak Lawoi, they have been living a sedentary life in the town longer and have adopted the Thai education system and so from the Rawai community, there have been several high school graduates but still not many. For both Moken and Urak Lawoi, the boys leave school and start working or going out to sea from eleven to fourteen years old.

Parents 1 and 2 stated that it was normal for students to drop out at a young age and the parents can not do anything about it. Moken parents take hands-off approach when it comes to parenting, letting the child pick for themselves. This may have something to do with the fact that the parents are busy off working during the day and so the children are left to themselves. So even if some parents want their kids to go to school and complete their education, many of the children just follow their peers and skip school. The Urak Lawoi elder shared the same thing regarding her community. The parents leave the kids to fend for themselves and education is not something that is pressed upon the children. She stated that while the men go out during the day to work, many of the women will spend the day gambling with the other women, giving the children money to go off and do whatever they want.

According to the Urak Lawoi elder, a big problem in the community addictive vices such as gambling, alcohol, smoking, and drugs. The dangers of letting the children do whatever they want to is that they can be easily swayed by friends and peers. The children start getting addicted to cigarettes when they are as young as ten and then go on to other things. She says:

> "Drugs are a big problem in our community. But our neighborhood is big with about 2,000 people altogether and so it's hard to crack down on drugs. The police do not monitor it and the dealers are not punished heavily. The schools teach the dangers of drugs to the students, but a lot of the kids do not go to the school anyways." (May 13, 2018: Rawai)

Another thing keeping the children away from school is gadgets and games. The kids are only interested in playing with their cell phones and will stay at home all day to play. Parent 1 shared her perspective on the children's use of technology:

> "Gaming is not a bad thing, but they must have limits. Same thing for everything, moderation. If we control them too much they will rebel and not listen to us. So we give them spending money every day and let them do what they want. The children go to the computer shops all day too, I think it should close at a reasonable time because it is a big problem." (May 13, 2018: Rawai)

When talking about the prospects of the Chao Lay children in school, the Urak Lawoi elder stated that if the children went to school consistently and were diligent, they can show how smart they are. Because the children know many things their Thai counterparts do not know, for example things about the sea or sea life. Parent 2 admitted that education could help with job security, as currently they face uncertainty in their fishing jobs. If they were to get injured or sick because of their work, they do not have any other options for income. Additionally, vendors and

people from outside the community are beginning to come and set up their stalls and restaurants in Rawai, seriously limiting their business. There is not much money in gathering and selling seafood, and the next generation are better off looking for alternate livelihoods. He also noted that the youth today have a lot better opportunities academically than the previous generation did. When he was young, the teachers were not so interested in teaching. But in the school today the standard is higher. Those that study will have more opportunities.

Because the community is such a melting pot of different groups, Thai has become the go-to language for communication. Unlike the other island communities, the children here only speak Thai and are losing their mother tongue. Parent 1 said:

> "Moken children here can not speak Moken. They only speak Thai. We try to teach them, but they are not interested. In the future, there might not be any Moken language spoken in Rawai. The folk songs are gone from the community, no one remembers them. All the elders that did have passed away. The young generation will grow up not knowing their culture and language" (May 13, 2018: Rawai)

The Urak Lawoi elder has been trying to revive interest in the Urak Lawoi language among the youth. She teaches their language to the children on the weekends at the Christian church, but the interest remains low. One extra-curricular activity that has been successful in the community is sports, especially football. The various Chao Lay children can be seen getting together to play at the local football field every afternoon and evening. Some young boys have even shown high ability and potential in the sport. This is not surprising, as sports draws from various innate abilities of Chao Lay children such as play and learning by doing. As Chao Lay children are afforded a lot of time to play, and since they naturally learn by doing and kinesthetically, it makes

sense that they would adapt the mainstream form of play (in this case football) similar to the way the children on Phyam Island mastered surfing. Several football coaches have come to the community to give coaching and football lessons, and two of the boys who showed a high aptitude and potential in the game were offered scholarships at a sports school in Bangkok where they could continue their schooling and train in football.
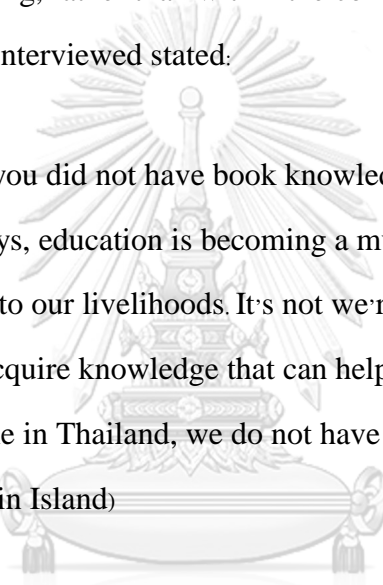
5.2 Moken attitudes towards education

The in-depth interviews were conducted to evaluate how the Moken feel about education, and how they view education in terms of their children's futures and livelihoods. With regards to promoting education, not many parents are very active in encouraging higher education among their children. Only a few parents are far sighted in terms of the potential that education can open for their children's futures, but for the most part Moken parents are fine letting their children choose for themselves and do not pressure the children to choose either way. Many Moken parents are just as happy to see their kids start working and start families as they are to see them complete their schooling. To the Moken, education is not a priority. Some parents are starting to encourage further education for their children to open opportunities and make more money, but by and large the Moken are afraid of leaving the community and comfort zone.

From the experiences of the parents taken from the various interviews, nearly all only completed low primary schooling and then left school to work. They found it hard to focus in the classroom because of the difficulty in language comprehension as well as the inability to relate to what was being taught. They did not find school fun or engaging and so they went off to work, and once they started making money, there was no incentive to go back to school. The parents do admit that the Thai schooling does teach some relevant information such as reading, writing and math, as well as

responsibility. These are all important things that they need to use and practice even as adults. They are also slowly having to admit that times are changing, and their traditional livelihoods may not be feasible for their children.

In the old times, they lived off the land. The Moken fished and gathered seafood through methods taught by their parents. This is the way it had always been. Learning traditional knowledge from the elders telling them and from observation. They prefer learning this way, by doing, rather than within the confines of the classroom's four walls. One of the elders interviewed stated:

> "Before, even if you did not have book knowledge, you could work and make money. These days, education is becoming a must. But Moken need to get educated related to our livelihoods. It's not we're studying to live in the cities, no, we need to acquire knowledge that can help our livelihoods. There are millions of people in Thailand, we do not have to all strive for the same jobs." (Feb 1, 2018: Surin Island)

This sentiment was echoed by other parents, who agreed that it is hard for Moken to live in the cities, as there are too many people, no freedom, and no sea. The Moken are still reluctant to wander too far from the sea. But they agreed that the new generation might need to look to the mainland. Limited land on the island and a growing population meant that resources are diminishing. Add to that the fact that trawlers are sweeping the seas clean of fish and shrimp, and the sustainability of traditional livelihoods does not look promising.

When asked about their hopes for their children, and what they want them to do. Most answered very neutrally. "It's up to them" was the most common answer and shows the Moken carefree attitude and spirit. In the Moken language, there is no word for worry.

The answer however, is more applicable to the boys than to the girls. The daughters in the Moken culture have predetermined roles that they have to play that realistically limits their choices. For example, in a big family that has many children, the older daughter will be the one who takes care of the younger siblings or nieces/nephews/cousins when the adults are working and not around. So even if they wanted to attend school, those responsibilities make it more difficult. Boys have more freedom to do and choose what they want. They have no pressure from the parents to study, and it is generally up to them whether they study or work. Most choose work. Moken parents will suggest things to their children, but will not force them to do what they do not want to do.

In school, the Moken children struggle to find understanding and relevance in the curriculum. Understanding and getting the meaning is one of the hardest things for Moken students – relating what they learn to what they know. One Moken parent explained it like this:

> "It's similar to when Thai students can read English but have no idea what it means. If they do not have context, it does not mean anything to them." (Jan 31, 2018: Surin Island)

And so the students do not give their all in school, and are labeled as lazy. In the past, two of the promising students on Koh Surin were given the opportunity to go study at the high school on the mainland. They were given scholarship and were placed in seventh grade. However, they were not there for even a month before their families brought both girls back. It was their families that missed them, and were fearful of what might happen to them on the mainland away from home. The Moken view on education is that you do not have to learn a lot, just the bare minimum of what's needed to survive. The school at Koh Surin is fortunate to have a teacher who is also

Moken. She was the first Moken university graduate and teacher and has been
teaching for six years on the island school. She said that for Moken to receive higher
education, they have to be very determined in order to overcome all the social and
societal obstacles.

5.3 Moken ways of knowing: traditional knowledge retention and transmission

As previously mentioned, traditional knowledge has much that western science can
learn from. From different uses for plants and trees, maritime navigation, to natural
resource conservation and management, ecologists and anthologists are discovering
the wealth of wisdom and knowledge that have been passed down through the
generations within local communities. This is true of the Moken people, who for
generations have kept their knowledge and practices alive by orally transmitting the
wisdom to younger generations. A prime example can be seen in how tightly their
society had been tied to their traditional boats, the kabang, and how those values had
been passed down.

For the Moken, the kabang was more than just a boat. It was their means of
transportation, lodging, hunting, gathering, and fishing. The Moken often say that they
are born, live, and die on their kabangs. In the past, their traditional boat they used was
a kabang koman, which was dug out of a solid piece of salacca wood. This wood was
lightweight and was very buoyant, thus making it unsinkable even when the boat
filled with water (Narumon Arunotai, 2006). Their design and method of building the
boat required no nails, as the boat was held together by vines and pieced together
through specially cut sections of the wood. The complex design and method of
building the boat stands as a testament to their technical ingenuity. From an early time,
as early as the mid nineteenth century, the kabangs of the Moken fascinated the
western seafaring men who were intrigued and wrote extensively about them. They

noted how functional and practical the different technical aspects of the build design, from the notches at the front and back of the boat, to the roofs that are attached to the boat, and how everything ties in to aiding them in their lifestyle and livelihoods. While they noted the functional and technical aspects of the kabang, the western observers did not realize that they also had spiritual and symbolic tie-ins. Jacques Ivanoff, a French anthropologist, found that the Moken see their boat as a duplicate of the human body. Different parts of the boat were given symbolic designations to different parts of the human body (Ivanoff, 1999). The kabang koman were eventually replaced by plank kabang, made from wooden planks rather than dug from tree trunks, as they last much longer and are more durable.

In building their boats, the Moken demonstrate their traditional knowledge and skills at every step of the boat building process. This is displayed in their knowledge of how to select the wood, from the age, size, type, and thickness of the tree. They then further use their knowledge in cutting the wood to either make planks or dugouts. The dugout is then carved out of the log and the hull of the boat begins to take shape. The log is put over a low fire to widen it using fork-shaped wood (Narumon Arunotai, 2006). The whole process requires a fine science that has been time-tested and perfected. This much care is put into the boat, as their lives will be intertwined with it and depend on it. In order to marry and start a family, one must have a boat. In the Moken culture, to marry is to live together and travel together on the same boat. The kabang is therefore the cornerstone of the Moken family, and thus society. Thus, to have a boat is to have a woman, as Moken see having the capacity and aptitude to make a boat as a prerequisite to marriage (Ivanoff, 1999). Today, the Moken are prohibited from logging and cutting down the trees needed to build their traditional kabang. This is because many of them now reside within or close to protected forest areas. Instead of using their traditional boats, today Moken can be seen using the Thai longtail motor boats called rua hua thong. Without the wood to build their boats, the skills and knowledge of boat-building is slowly dying out.

As the Moken spent most of their lives seafaring and traveling from one island to another, they were naturally adept at navigating the waters and the different islands. They became familiar with the different places around the Mergui Archipelago, and gave specific names in their language for the different bays, beaches, capes, and channels. These names often are tied to historical events or persons, and also indicate local flora or fauna. The names help to embody the social and cultural memory of the people in relation to the landscape (Narumon Arunotai, 2006). For example, in the area around the Surin Islands, which is currently inhabited by a large Moken community, there are almost a hundred place names in the Moken language. Names given to places, such as *panad chaba* (python beach), *panad ni-oun* (coconut beach), and *baya u-buan* (monkey rock), all further highlight the Moken people's intimacy with the environment that had been established over generations.

Being expert navigators, the Moken are able to read the surrounding nature and the signs of the sea. This knowledge of the waves, currents, and winds are another aspect of the traditional knowledge which they have cultivated and handed down. They are keen observers of natural rhythms and are thus more in tune and alert to unusual natural phenomena. The Indian Ocean tsunami in 2004 serves as a prime example of this. The Moken on the Surin Islands were able to survive without a single casualty while hundreds of thousands around Southeast Asia perished. They had knowledge from their forefathers from past events in history, and so they knew that when the waters on the shore drastically receded, the tsunami, or *la boon,* was coming. This knowledge prompted them to run up to higher ground and save their lives. Without the use of modern science or technology, they were able to develop an early warning system strictly based on knowledge and observation of the world around them (Narumon Arunotai, 2006).

As well as being adept out at sea, the Moken also hold vast amounts of knowledge regarding living off the land. Being finely in tune with nature, Moken people have incorporated spiritual beliefs as well as cultural values in their interactions with nature. In living in harmony with nature, the Moken hold nature in utmost respect and take resources from the land and sea with a sense of deep gratitude. Their management of natural resources helps to ensure the resources are available for future generations. For example, when they go diving for sea cucumbers, they will make sure that they do not pick the "mothers" that can reproduce. This practice ensures long term resource gathering. Another example can be seen when collecting wood used for the rudder of their kabang. Rather than chopping down a tree, they will cut and take only the sliver of wood that they need, cutting the tree in such a way that the tree does not die but goes on living for future use. Essentially, they are able to live with and manage nature in such a way as not to destroy or deplete the natural resources. Today, this method of conservation and management is overlooked in favor of mainstream modern science and the natural resource management correlating to it. As a result, the Moken traditional knowledge and methods of conservation and natural resource management is not recognized (Narumon Arunotai, 2006).

Having become more sedentary in recent years, the lifestyle and values of the Moken have seen a shift away from traditional to more modern. Following traditional conservation is made more difficult with the limited mobility, and as they are unable to forage on the private lands and coastal properties that have come up on their traditional foraging sites, their resource usage in the limited areas they have access to becomes more intense. Along with losing the means making their traditional boats, the Moken have also seen their livelihoods shift away from hunting and gathering towards wage labor. All this adds to the slow erosion of their traditional way of life and knowledge (Narumon Arunotai, 2006). One of the Moken elders interviewed laments this fact:

"If Moken were truly allowed to live off the sea, we would be rich. Moken know all the places around here, and where there are lots of fish. But we do not have the resources or permission to make use of it. Like the Thai have their gardens and fields, the sea is our garden, our field. But now they've banned us form using our field. Because of restrictions, all this knowledge is being lost. We're not as good at diving and hunting as we used to be. We are not as healthy as we used to be. We can eat fish all the time like the old days. Our forefathers were living in the sea for hundreds of years. There was no national park to tell us what to do, and they were stronger and healthier than we are now. In the future, Moken will lose their ways. Can not dive, not in tune with the water. It will be a sad day." (Feb 1, 2018: Surin Island)

Researcher Paladej Na pombejra of the Chulalongkorn University Social Research Institute, was able to give deeper insight into the breaking down of traditional means of knowledge transfer. He explained that the changing work and family dynamics contributed to the weakening of knowledge transfer systems. He had lived with and observed the Moken and their way of life more than twenty years ago, before the tsunami and the major shift in lifestyle. Back then the Moken still relied heavily on their hunting and gathering practices for subsistence. Parents would go out during low tide and catch sandworms, crayfish, and other seafood with which to feed their families. Children would always accompany their parents and would learn by observation, and eventually through practice. Foraging in the forest for different plants, trees, or herbs would also be a family affair, with the children accompanying their parents into the forest. In this way, knowledge would be transferred in the most natural way, through observation and practice. Children would learn fishing from an early age and it would not be long before they could catch fish on their own.

Figure 10

Credit: Paladej Na pombejra

However, this style of knowledge transfer is under threat due to the change in work and family dynamics today. Moken today no longer rely on hunting, gathering, and foraging for their subsistence. Neither do they have time for it, in many Moken families both parents work wage as laborers from morning till evening. Food for the family is provided through the income from those jobs. On top of that, with wage-based work now taking up their day, they no longer have the time, energy, nor the need to go out and forage for food. What suffers as a result of this is the family dynamic, as Moken families are not spending as much time together anymore engaging in traditional subsistence practices. The primary channel of knowledge transfer is also stifled, and things that were common knowledge for Moken are slowly dying out.

Na pombejra also pointed out that another clear indicator of the changing knowledge systems can be seen in the way the children play. Play has long been the means by which children in hunter-gatherer societies learn. Because there is no formal schooling, they learn what they need to learn through observation, play, and exploration. Because there previously was no schooling, children in these societies

had more than enough time to play and explore. And that was a significant part of their education in traditional knowledge. The children observe their parents and incorporate their observations into the way they play (Gray, 2009). Na pombejra recounts the play that he witnessed twenty years ago, and what he saw was that it incorporated the activities that the children saw their parents perform. Activities such as spear fishing, rowing boats, diving for objects, and collecting shells were all part of child's play for Moken children growing up. Compare that to today, and you see those types of play have been replaced by modern games such as football. Children are also not afforded as much time to practice these different skills through play, as they are now expected to be in school during the day and learn the national curriculum.

And so the transfer of indigenous knowledge to this current generation is waning, due in part to the reasons mentioned before. Another reason is that the elders and knowledge holders on the community are gradually losing their relevance in the community as modernization steps in. The result is that there is a disconnect in traditional structure and a weakening of the knowledge transfer. However, if traditional indigenous knowledge were to be recognized as viable for natural resource management and conservation, the preservation of said knowledge would follow. It would support the case for strengthening the knowledge base and teaching it to younger generations.

5.4 Alternative approaches for Moken children education

Alternative approaches for education are starting to take shape and gain momentum around the world. More and more academics and organizations are acknowledging that there is a problem and gap in opportunities for learners outside urban centers. Even in Thailand, the alternative education movement is picking up pace as can be seen in the experiences among the indigenous groups in the north. However, among Thailand's southern indigenous groups such as the Chao Lay, there has yet to be

similar attention and support given by governmental and non-government organizations. There are however, smaller-scale instances and examples of communities in these coastal regions taking initiative on their own, and running programs that implement aspects of the alternative/mixed curriculum.

In the case of Koh Phyam Learning Center, in addition to preparing the younger children for transitioning to Thai school and informally teaching students not in school, the center aims to teach basic life skills and create opportunities for the children's future. As detailed earlier, these opportunities come in the form of niche skills such as surfing and SCUBA diving which the Moken picked up and mastered very quickly and naturally. As for life skills, NGO worker 2, with the help of the young children built a chicken coup in which to raise chicken. The chickens are raised for their eggs, which the children collect and sell.

The students are involved and responsible from start to finish. It is their duty to feed the chickens, collect the eggs in the morning, sell the eggs, and use that money to buy more chicken feed. The children are able to sell all the eggs every day as they sell the eggs at a price that is lower than market price to help those in their community. Since they live in a low income, they are able to help out their fellow community members. Any profit made is then split between the children. This small project alone teaches the children responsibility, accountability, accountancy, and solid principles of valuing their community. The success of the children in taking on this project will lead to similar projects, with a vegetable garden and fish farm planned for the immediate future.

The Moken Learning Center is a promising model of combining textbook education with teaching invaluable hands-on life skills that can only be learned outside the classroom. The classroom subjects are taught in the morning, with the afternoon time spent working outside and developing and learning the different skills. The weekends

are when the students get to explore their culture and learn from the elders as they go out on boats together. While still relatively new, it will be interesting to see and keep track of the long-term success of this learning center. It might be wise to register under the local Office of Non-Formal and Informal Education in the future, especially if the center plans on taking on more than just a couple students who cannot make the adjustment to the Thai formal schooling system. Such a move could be prudent in ensuring the long-term survivability and sustainability of the center.

A community that was studied, but not actually visited by the researcher was the Urak Lawoi community on Koh Lipe. The school on the island, Ban Koh Adang School, had developed a mixed curriculum based on the needs of the students on the community. Being one a few of its kind, it was certainly worth a look and the researcher was able to interview the teacher who was in charge of the local curriculum. The teacher in question was an Urak Lawoi from the local community. She explained that the local curriculum came about partly in order to instill Urak Lawoi values and identity in the children. Before, parents especially mothers, had a lot of time to raise their children as they did not have to work. Today, in many families both the parents have to work full-time in order to make a living and support the family. There was a need to instill Urak Lawoi knowledge, values, and customs to the children.

Ban Koh Adang School is a government school with both Thai and Chao Lay students and goes up till ninth grade. There are currently 264 students in school, with 20 of the students being Thai. And of the 24 teachers on staff, 4 are Chao Lay. Since the majority of the students are Chao Lay, there generally are not any issues of discrimination. With reference to academic aptitude of the students in this school, although they are behind their peers who are in the towns and cities, but when it came to life skills, the Chao Lay students are ahead of their mainland peers. These skills include cooking, fishing, boating, and other skills that the children learn by doing. She

also noted that many skills picked up by Chao Lay students have been outside the classroom, just going around and playing with their friends and collecting skills through experiences.

The local curriculum at the school was one that was born out of practical application. The curriculum is made out of three parts:

      1) Local and traditional knowledge 1st to 7th grade.

      2) Community youth guides 9th grade.

      3) Learning to bake and make snacks 8th grade.

Elders from within the community come to the school once a week and teach local and traditional knowledge to the students. This includes the traditional Urak Lawoi dance and music. Because they have kept these arts alive, nearby resorts and hotels will come and hire the children to perform cultural dance shows for certain events for their guests and tourists. This can be a minor but sporadic source of income.

As for the community youth guide training, they receive two hours a week and the aim is to train the students to be competent guides for their community and area. Because they are the true locals, and original inhabitants of the island, their story and narrative will be more historically rooted. Lipe is a popular tourist destination and so the youth guides are prepared for tourists who want to know about and explore the local community.

The last part of the local curriculum is learning to bake and make different snacks. The practical application of having such skills is the ability to sell the snacks and generate a little income. That is just one of the ways which the school hopes to equip and prepare students for life after school. According to the teacher, the students enjoy this curriculum as they are able to immerse themselves in learning something that they can also use in their lives. The students are also filled with confidence and self-worth, as they are taught that their culture matters, and so they are not ashamed of being Chao

Lay and indigenous. In addition to teaching local curriculum, the school has a Trash Hero initiative in which the students go into the community every day to clean up their community. This has had a positive impact in community cleanliness and also instills a civic sense into the students.

The results of this mixed curriculum has been very positive. Children are gaining literacy and math skills form the classroom subjects. They are able to apply it to real life, for example helping their parents or elders read instructions on medicine labels. Despite the success of this curriculum, the biggest challenge is convincing the students to go for further studies. The high school is on the mainland, and so is the university. Most of the students who finish ninth grade go out and find work. Further studies would mean further expenses for the students, especially with having to live on the mainland away from home. The parents of the students would rather not have their children go far away from home even if they did want to go study. When asked what they want to do in the future, most of the boys will answer fishing or operating tour boats. It is the girls that will answer being nurses, teachers, and doctors, but they will be shy and will not express it as much because they do not have as much freedom as boys when it comes to choosing their futures. In the 10 years that the teacher has taught at the school, there have been 5 university graduates: 4 teachers and 1 working in the tourism industry.

The situation of the main sites studied must be taken into account, as despite their similarities, there are notable differences in their contexts and situations. Comparisons and analysis cannot be done without taking into account these differences, such as proximity to modern life and towns, exposure to tourism, and other such factors. Table 7 below compares and contrasts these similarities and differences to get a better picture of the context of each community.

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Table 6

Context and situations of communities and schools			
Location	Proximity to modern life	Exposure to tourism	Proximity to school
Surin Island	Far - three hours to mainland by longtail boat	High - tousits come every day - livelihoods now revolve around tourism -invasive tourism	Close - School located within communty, couple minutes walk from students homes
Phyam Island	Not far - Tourist resort area half hour walk from village	High - tourists often walk through village community - not considerate of community or the fact that they are walking through private property, invasive	Far - Students have to cross body of water on raft and then walk half hour to school - Will not go to school if there was no arranged transport to school
Rawai	Close - Moken quarters are within popular tourist destination and thus the town is developed for tourism	High - tousits come every day to seafood stalls and to the beach -Tourists avoid Moken quarters as it is in the run-down area	Medium - School is within walking distance, but children would do better if walked to school by parents to ensure that they actualy make it to school

Table 8 below shows the different opportunities created or potentially created for the future of the learners who partake in activities or alternative curriculum outside that of the formal education offered by the public schools.

Table 7

New Opportunities Created			
Location	Educators/trainers	Form of alternative education	Outcome
Surin Island	IP teacher	Early mother-tongue instruction Extracurricular traditional dance lessons	Students learn content better when instructed in their mother tongue, and are able to learn national language too The youth get together to practice and occasionally dance for visitors
Phyam Island	NGO volunteer Expert surfer	Prepatory school/pre-kindergarten Non-formal education Extracurricular surf lessons	Students equipped for public schooling system, or can stay and study in a more flexible environment if needed The boys compete in regional competitions , and have been offered jobs as instructors
Lipe Island	IP teacher	Local curriculum on Chao Lay identity and dance lessons	Students gain well-rounded set of skills for future work and life Resorts hire students to perform traditional dance for tourist events
Rawai	Football coaches	Extra lessons and football coaching	Two of the boys who showed exceptional skill will contintue their schooling in Bangkok with sports scholarships

Chapter 6: Conclusion and Recommendations

6.1 Sustainable and inclusive education for Moken children

Having presented several different cases and situations that indigenous learners in Thailand currently face, conclusions can be drawn to develop suggestions and recommendations for education going into the future. This aim of this research was to study and analyze the current situation and shortcomings of Moken children's education in Thailand, as well as to explore Moken ways of knowing and learning that could be beneficial to rethinking their education. Another objective was to identify alternative approaches to sustainable and inclusive education for Moken children in Thai education context. The results of those were presented and illustrated in the previous chapter. The main findings and answer to the research question is discussed and explored in this chapter. This chapter also discusses the implications of this research and where it stands in relation to the existing body of literature on the topic, as well as the limitations of the research and possible avenues for further research.

The aim of identifying alternative approaches to sustainable and inclusive education for Moken children in the Thai education context was the focus of the cross analysis of the data and cases. Through the research and findings, it became clear that the goal of ensuring inclusive and equitable quality education was not being met. Over the years, the term inclusive in the context of education has come to mean including children with handicaps and disabilities into regular classrooms. This scope of the term "inclusive" needed to be broadened, as inclusive means much more than that. In addition to covering children with learning and physical disabilities, when considering inclusivity, it is pertinent to include all children left out or excluded from school and from learning. Children left out of learning systems are the hardest to identify, because even though they might be attending school, they may not be able to engage and connect to the education system and may soon themselves drop out.

The important concept that must be accepted is that all students are different, with different background, needs, and abilities. But regardless of the differences, all students have an equal right to education. It is the responsibility of the education policy makers, school officials, and teachers to ensure that these rights are affirmed and that the students' differences are not a barrier to education but are acknowledged and embraced. This does not seem to be the case of Moken and most indigenous students, who are expected to adhere to and meet the standards set forth by the centralized education system. Their differences (language, culture, values, beliefs, learning system, knowledge transfer system) leaves them at a huge disadvantage to their Thai peers, who are well versed in the Thai language, culture, and way of learning due to their birth.

In an unbiased system that offers equal opportunity to all, such factors should not determine one's success in the educational field. But unfortunately, in the current academic environment, those factors are proving to be an obstacle that most indigenous learners cannot overcome. The initial hypothesis that access to equal opportunities in education is not enough for Moken children's education in terms of cultural survival and sustainable development proved to be true but only touched the surface of what was a deeper issue. Actual opportunities still fall short of perceived opportunities, and for all the work and policies put in place to ensure education for all, there remains a large gap between policy and implementation.

Looking at the successful implementation of alternative curriculum the hill-tribe communities in Thailand, examples were set of how community-based learning can lead to a progressive curriculum and unconventional teaching methods that place a high value on indigenous ecological knowledge. While the Moken communities that were studied showed a semblance of alternative and mixed curriculum being taught, more can be done to fully implement and integrate the local curriculum into the schools. For general knowledge on their communities and local wisdom, students

should not have to rely on cultural camps or training set up by outside entities as that is not sustainable or far-sighted. Rather, bringing in the community and giving them a sense of responsibility and ownership of their education seems to be what works the best.

By continuing to encourage hands-on learning style, life skills and livelihood skills, the Moken will value their learning system and not see it as undermined by the supposedly superior formal education system. This alternate approach to sustainable and inclusive education for Moken children in the Thai education context is highly viable, and can help bridge the gap between Moken learners and the formal education system in order contextualize and make relevant the curriculum that is taught.

6.2 Implication and integration of indigenous peoples, knowledge into formal curriculum

There may be a solution that goes beyond alternative education for indigenous learners alone. By bridging the divide between mainstream and traditional learning systems using the concepts and links between the different pedagogies, there is an avenue to implement traditional knowledge systems within the national curriculum.

Figure 11

4.7 Knowledge and skills for sustainable development, including education for sustainable lifestyles, human rights, gender equality, appreciation of cultural diversity and culture's contribution to sustainable development.	Integration of indigenous peoples' knowledge, culture and languages in formal curricula, including for non-indigenous sectors of society.

Source: (AIPP, 2017)

The above Figure is part of the indicators of Quality Education among indigenous peoples found in Figure 2 on page 19. As it states, "integrating indigenous peoples' knowledge, culture, and languages in formal curricula, including for non-indigenous sectors of society," should be an aim, and go beyond just applying said education and learning to an indigenous audience. Through proper application, using indigenous people's perspectives by implementing their learning techniques would go a long way to validating their culture and learning processes.

Going a step even beyond that, the Moken worldview, knowledge base, and knowledge transfer system can all be related and integrated into formal curriculum without sacrificing quality or credibility. The Moken ways of learning from and about the nature is a comprehensive education system in itself. The "8 Aboriginal Ways of Learning" can be applied directly to Moken ways of knowing, with the obvious ones being:

- **Story sharing**: much of Moken learning and knowledge transfer is done through this process as they have no written language. There are no formal times or places in which story sharing takes place, but rather, it happens throughout the day in different locales and situations. Every situation can be a learning situation, and the Moken culture is rich in allegory and place-based tie-ins.

- **Non-verbal**: Moken, especially the children, learn through observation. Starting at early ages when they go foraging with their parents, the children learn by observation and then by playing out those actions until they have achieved mastery of the process. They are kinesthetic learners through and through, able to learn simple and complex processes simply through observing and repeating through a hands-on approach.

- **Symbols & images**: The Moken culture and folklore is rich in symbols and metaphoric imageries. Through the stories they share, and the symbolism buried within, they are able to convey values and knowledge.

- **Land links**: Placed-based learning is a feature of Moken knowledge transfer. Each island and geological feature has a name and correlating stories. Not all stories are historical, but they serve the purpose of establishing importance and connection to the land.

- **Community links**: Moken society places a heavy emphasis on community, with each member seen as part of the whole. Many hunter-gatherer societies have sharing as a virtue, and that same goes for the Moken. Whether it be sharing the hunt of sea turtles or sharing gifts and donations brought to their village.

Furthermore, play as a route to education should be explored to better understand the indigenous learners and their innate learning system. This can go a long way to brining understanding to outside teachers as to how and why their students react to their teaching the way they do. With this perspective, and keeping in mind the inquisitive and exploratory nature of the Moken children, teachers would be better informed and equipped to nurture that energy rather than chalking it of as restless and hyperactive behavior. Acknowledging the kinesthetic nature of the Moken children's learning tendencies can also help teachers better meet the needs of other students who happen to learn in different ways. This goes back to the idea of "inclusive education," and that also means including those students who might learn at a slower pace or in a different style than rote learning and textbook memorization.

Institutions such as Roong Aroon School and Moo Ban Dek have highlighted and harnessed the potential benefits of a flexible curriculum where learners are encouraged to explore and experience nature. In this sense, indigenous knowledge has a lot to offer mainstream education, and indigenous learning processes are viable for use in the classroom, both for indigenous and non-indigenous communities. In learning the way Moken and other communities learn and view the world, it would bring those learners closer to nature and give them a heightened understanding of people living in nature. Acknowledging and accepting one another's differences begins with understanding the "other," and so this would not only cultivate knowledge but also respect for others from different situations and backgrounds.

The respect taught here can play a role in promoting sustainable lifestyles in harmony with nature. As respect and understanding for indigenous ways of being are fostered, the sense of responsibility can be passed on to the learners. Responsibility to take ownership within their communities on environmental issues as they see the value and relevance of the impact they can have. These values can be reciprocated or passed on to those around them as they believe more and more in the value of nature and sustaining it.

6.3 Conclusions and recommendations

Several aspects of education were highlighted that needed rethinking. With the added insight gained from evaluating Moken knowledge systems and attitudes towards the current formal educational system, it would be reasonable to conclude that indigenous students would best benefit from a curriculum that is tailored to their needs, backgrounds, and experiences. As each community and people group is different, so are the things that would be deemed as relevant to each community. Developing a curriculum that is conducive to learning hinges on embracing and learning from differences. To foster inclusive rights-based education in different regions, teachers need be properly equipped with sufficient training and knowledge to provide inclusive education.

Even though there is an existing government policy allowing for developing local curriculum, it will not be realized if administrators and officials are not properly versed and trained on the implementation. Support, both financial and logistical, should be given by the Ministry of Education to districts and regions that require it. These would go a long way to lowering the barriers to education for all regardless of background, ethnicity, or geographic location.

APPENDIX A: Interview guide for educators and NGOs

1. Relevant personal information (field of study and experiences, how many years teaching, what levels/subjects, where/which schools....). When did you start to teach in this school?

2. How are the families of Chao Lay children compare to other children's in terms of love, care, and teaching? Do they have time for the children?

3. Do the children in the same class have the same age? What do you observe about Chao Lay children? Do you think the learning style/attention/attendance/behavior of Chao Lay children are different from other children? How? Why? Please give examples. Do the children perform well? Do they fail and have to repeat?

4. What do you do for the poor performing children or those inattentive at school? Do you use alternative methods for teaching and learning?

5. Where and how do Chao Lay children learn life skills? What are they good at?

6. What life skills and other skills are lacking, or could not be provided by the parents/communities?

7. How do the children apply subjects/contents of school education in their life? Please give examples.

8. What would Chao Lay children like to do or be in the future? Is that different from other children? How and why?

9. Is there local curriculum in school? What subjects/contents? How is it developed? How do children like it? Do they perform well?

10. How is the school connected with the community? Do the school work with the community and the elder?

11. Are the children embarrassed of their culture and language? How and why? How can that be improved?

12. Do most Chao Lay children drop out? Why? If they do not continue in school, what do they do? Do the parents want their children to remain in school or is there pressure from parents to work? Are they anyone who encourages the children to higher education?

13. Is there high turnover rate for teachers?

14. Do Chao Lay children use their language with their peers in school? Do all the children in this school get along well

15. What do you see as the biggest challenges for Chao Lay education?

16. Get data/number/statistics about children, e.g. number of children (Chao Lay and non-Chao Lay),teachers, higher education rate?

APPENDIX B: Interview guide for students

1. Relevant personal information (age/class/real names.).

2. How do they like to learn? (inside/outside/media, etc.)

3. Do the children in the same class have the same age?

4. Do they get along with the Thai students

5. Where and how do they learn life skills? What are they good at?

6. Do they enjoy school?

7. How do the children apply subjects/contents of school education in their life? Please give examples.

8. What would Chao Lay children like to do or be in the future?

9. Are they learning local knowledge in school? What subjects/contents

10. Are they learning local knowledge from community members/elders

11. Are the children embarrassed of their culture and language? How and why? How can that be improved?

12. Do the parents want their children to remain in school or is there pressure from parents to work? Are they anyone who encourages the children to higher education?

13. Do they feel education will help their future

14. Do Chao Lay children use their language with their peers in school? Do all the children in this school get along well?

15. What do you see as the biggest challenges for education? (focus/bored/understanding)

APPENDIX C: Interview guide for elders/community members

1. Relevant personal information (Age, name, family info, children)

2. Highest level of education achieved? Did they want to study further? Why did not they?

3. What were their struggles in education

4. What do they want for their children? Do they encourage to go to school?

5. What are their thoughts on the formal education system. Does it have much to offer their current livelihoods?

6. What are their thoughts on their traditional knowledge. Does it hold relevance in today's context?

7. Are they doing anything to gain access and retain the skills & knowledge they deem appropriate to their needs? Are they doing anything to perpetuate said knowledge and pass on to the next generation?

8. What are their views and feelings on technology and modern culture?

9. Realistically, do they see formal education helping with:
   - livelihoods
   - opportunities
   - land rights
   - self determination

10. Where did they learn most of the skills they need in life?

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