EFFECTIVENESS OF INDIGENOUS PRIMARY LEVEL TEACHERS TO TEACH IN MOTHER TONGUES IN BANGLADESH

by © Abdullah Al Mamun Bhuiyan (Thesis) submitted to the School of Graduate Studies in partial fulfillment of the requirements for the degree of

Faculty of Education

Memorial University of Newfoundland

July 2024

St. John's Newfoundland and Labrador

Abstract

This research is related to the effectiveness of Indigenous primary level teachers in teaching in Indigenous mother tongues in Bangladesh. The participants in the study are Indigenous Chakma language teachers at public primary schools in the Chittagong Hill Tracts (CHTs) of Bangladesh. For this phenomenological study, 14 teachers were interviewed through open-ended semi-structured interviews. Using thematic analysis and triangulation, the participants' responses yielded seven themes and several sub-themes. These themes include: a) Indigenous language teacher training; b) teaching time; c) opinion about government initiatives; d) logistic support; e) use of Indigenous languages; f) teaching and assessment strategies; and g) participants' recommendations. The inadequate literacy skills of teachers and the sluggish implementation of government education initiatives have resulted in less successful Indigenous language learning programs in public primary schools located in Indigenous populated regions of Bangladesh. The study results suggest that quick implementation of government initiatives and fulfilling promises made in policy documents regarding Indigenous language learning, protection, and Indigenous people's rights will enhance the quality of Indigenous language learning initiatives. Furthermore, it will also generate more enthusiasm and interest among teachers in teaching Indigenous languages.

General Summary

Research was conducted with Indigenous public primary school teachers in the Khagrachhari district of Chittagong Hill Tracts (CHTs), Bangladesh. The study assessed how well Indigenous teachers taught Indigenous language texts to students in pre-primary to level three. All participants teach the Indigenous Chakma language. They also teach other subjects in Bangla and English. A total of 14 teachers took part in semi-structured interviews. The study reveals that the Indigenous language reading and writing skills of Indigenous language teachers in Bangladesh are unsatisfactory. Teachers' lack of skills in this area leads to ineffective teaching of Indigenous languages that negatively affects students' performance. This research emphasizes the need to address important issues to make this program successful. The first focus is to improve teachers' skills in Indigenous languages through comprehensive, long-term training programs that cover language literacy and teaching techniques. Second, teachers should be provided with teaching modules designed for teaching Indigenous languages. Class time should also be increased as well as educational supports for Indigenous language courses. The use of Indigenous languages should be expanded, and new teachers should be recruited solely to teach Indigenous languages. The results also show that teachers should prioritize Indigenous language learning programs and incorporating more Indigenous languages into the curriculum. The research highlights the importance of acknowledging and addressing the deprivation and exploitation endured by Indigenous communities. Additionally, it revealed the necessity of incorporating more Indigenous community-related topics into textbooks and correcting mistakes in existing publications. The study participants recommended faster implementation of government initiatives and approved policies to ensure the success of Indigenous language learning programs.

Acknowledgements

I would like to thank my thesis supervisor, Dr. Dale Kirby, for encouraging me with guidelines which made my work easy. You presented me with various opportunities to enrich my research experience, polish my writing skills, and gain a solid understanding of academic research. Your mentorship, support, guidance, patience and encouragement during my thesis work are invaluable to me! Thank you for your immediate response every time I reached out for assistance. You gave me the confidence to turn this dream into a reality.

I want to thank Dr. Andrew Coombs, as co-supervisor, for helping me with ideas at the beginning of my proposal writing.

I would like to thank Dr. Jeanne Sinclair for providing guidance and information on some books that helped me learn about the decolonization of education.

Dr Seitebaleng Dintoe, thank you for your support during my master's degree. When I completed Qualitative Research Method course with you, I selected this method for my thesis.

I would like to thank the Memorial University of Newfoundland for giving me the scholarship, which made my education journey easy. Additionally, I want to express my gratitude to Dr. Janna Rosales and Dr. Andrew Coombs for providing me with teaching assistant roles during my academic journey. I would like to express my gratitude to Dr. Jeanne Sinclair for allowing me to work as a research assistant.

I am grateful to the Writing Center of Memorial University for their guidance at different points in the writing of my thesis.

As a student at Memorial University, I recognize that our campuses are located on traditional lands of various Indigenous groups, and I respect the rich histories and cultures of the Beothuk, Mi'kmaq, Innu, and Inuit of Newfoundland and Labrador province.

I want to extend my gratitude to my Chakma friends, whose names I cannot reveal for privacy reasons, for their support in uncovering exciting information about the Indigenous education system in Bangladesh.

Most importantly, I would like to thank my participants. Your openness, friendly cooperation, and trust made the interviews smooth and highly informative. I felt privileged to showcase the remarkable work you do as Indigenous language teachers in Bangladesh.

I would like to begin by expressing my admiration and affection for my parents, who have consistently motivated me to be a better person. During the challenging moments of my life, they never left my side, offering support through both the good and bad times. Every moment of my life, I miss them a lot.

I would like to give a special mention to my wife, Chaity, for her unwavering love and support. Thank you for giving me the time and space I needed to focus on this work and encouraging me when needed. Chaity, I hope you know how much I appreciate you.

I want to express my gratitude to my in-laws, my brother, Mrinal, and sister, Mithila, for supporting me throughout my thesis work. Additionally, I want to extend my thanks to my cousin John for his support during my thesis work.

Table of Contents

Abstract		ii			
General Su	ummary	iii			
Acknowled	dgements	iv			
Chapter 1:	Introduction	1			
1.1	Globally Education Rights of Indigenous People	3			
1.2	Effective Teaching Pedagogy and Teacher Preparation	4			
1.3	Indigenous language textbooks, teaching strategies, and teacher preparation				
	worldwide	6			
1.4	Bangladesh's Indigenous Education Initiative	8			
1.5	Present State of Indigenous Education in Bangladesh	9			
1.6	Purpose of Study				
Chapter 2:	Literature Review	14			
2.1	Theoretical Framework				
2.2	Importance of Effective Indigenous Teachers	17			
	2.2.1 Indigenous Teacher Training				
	2.2.2 Necessity of Teacher Education to Teach Indigenous Language				
	Textbooks	21			
2.3	Primary Education of Indigenous Students in Bangladesh				
	2.3.1 Bangladeshi Indigenous Teachers' Preparation to Teach Indigenous				
	Languages	24			
2.4	Research on Indigenous Teacher Training in Different Countries				
_,,	2.4.1 Examples of Successful Indigenous Teacher Training				
	Models/Projects/Methods	27			
Chapter 3:	Methodology				
3.1	Sample Collection.				
3.2	Data Collection Methods and Procedures.				
3.3.	Recording of Data				
0.01	3.3.1 Recording of Primary Data.				
	3.3.2 Voice-record software.				
	3.3.3 Interview protocols.				
	3.3.4 Recording of Secondary Data.				
3.4	Data Analysis.				
	3.4.1 Analysis and interpretation during data collection				
	3.4.2 Analysis and interpretation after data collection				
3.5	Interpretative style in a phenomenological study				
5.5	3.5.1 Description.				
	3.5.2 Horizontalization of the Data				
	3.5.3 Textual Description				
	3.5.4 Description of the essence of the experience				
3.6	Construction of Composites.				
3.7	Trustworthiness				
3.8	Ethical Considerations				
3.9	Researcher's Stance				
	Limitations.				
3.10	Limitations				

4.1	Theme 1	\mathcal{E}	
	4.1.1	Training Information	56
	4.1.2	Views about Gained Training	56
	4.1.3	Adequacy of Training	62
	4.1.4	Length of Training Programs	.63
	4.1.5	Gap between Training Programs	64
	4.1.6	New Teacher Recruitment and Training Process	65
4.2	Theme 2		67
4.3	Theme 3		
	4.3.1	Government Primary Initiatives	.68
	4.3.2	Government Future Initiatives	69
	4.3.3	Relation of Teachers with Government Authority	.71
4.4	Theme 4	: Logistic support	72
	4.4.1	Teaching Materials	
	4.4.2	Number of Teachers and Classrooms	
	4.4.3	Written Teaching Manual	75
	4.4.4	Expert Language Teacher	
4.5	Theme 5	: Use of Indigenous Languages	80
	4.5.1	Scope of Use	80
	4.5.2	Knowledge Transfer	
		4.5.2.1 Lack of Consciousness	.83
		4.5.2.2 Discover Language Importance	85
		4.5.2.3 Rights of All Tribes	
4.6.	Theme 6	: Teaching and Assessment Strategies	87
	4.6.1	Slow and Easy-going Teaching Method	
	4.6.2	Practice with Real-life Examples	.88
	4.6.3	Assessment Strategies	89
4.7.	Theme 7	: Recommendation of Participants	90
	4.7.1.	Topics Need to be Incorporated	90
	4.7.2.	Research Work and Revise Books	91
Chapter 5:	Discussion	on and Future Recommendations	93
5.1		on	
	5.1.1	Views about Access to Training	93
	5.1.2	Teaching Time	
	5.1.3	Opinions about Government Initiatives	108
	5.1.4	Logistical Supports	114
	5.1.5	Use of Indigenous Languages	
	5.1.6	Teaching and Assessment Strategies	123
	5.1.7	Recommendation of Participants	126
5.2		endation	
		on	
	_	ct Statement (English Version)	
	•	ct Statement (Bangla Version)	
		ER Approval Letter	
		IIG Approval Letter	
Appendix	E – Pre-Ir	nterview Letter	172

Appendix F – Verbal Consent Form (English Version)	173
Appendix G – Verbal Consent Form (Bangla Version)	174
Appendix H – Interview Questions (English Version)	
Appendix I – Interview Questions (Bangla Version)	
Appendix J – Interview Protocol	
Appendix K – Organizational System for Data Analysis	190

Chapter 1: Introduction

There is a general assumption worldwide that the effectiveness of Indigenous teachers in teaching their mother tongues is directly linked to their proficiency in Indigenous languages. An appropriately qualified teacher provides quality and relevant education in the Native language of Indigenous students (Translated by Content, 2022). However, a shortage of capable Indigenous language teachers hinders efforts to promote and preserve these languages (Lingam, 2022). The lack of qualified teachers in remote Indigenous schools is identified as the main factor contributing to the persistent educational inequality between Indigenous and non-Indigenous individuals (Champagne, 2011). Specifically, the lack of Indigenous teachers who can speak, read, and write Indigenous languages and act as mentors for younger generations exacerbates the gap (Champagne, 2011). The limited availability of suitable educational resources poses a significant challenge to the promotion and preservation of these languages (Lingam, 2022). Collaboration between Indigenous communities and government education departments are essential for developing the needed educational materials, teaching methods, and training programs (King & Schielmann, 2004). These partnerships aim to guarantee that Indigenous teachers meet the highest standards regarding their academic qualifications, language proficiency, and teaching abilities, thereby ensuring improved learning outcomes.

In Bangladesh, articles 15 and 17(a) of the constitution establish education as a crucial element of citizens' livelihoods, making it mandatory and free from pre-primary to the tertiary education level in public institutions (Tripura, 2016). Bangladesh, known as a monolingual country, is in fact culturally, ethnically, religiously, and linguistically diverse (Tripura, 2016); however, the constitution of the country designates Bangla as the only national and official

language (Tripura, 2016). The relationship between languages and Indigenous ethnic communities in Bangladesh are complex due to their imposed status and societal role (Sultana, 2021). While Bangla is the official language of the nation, English is regarded as prestigious and is taught as a required foreign language. English is connected to the former rule of the British monarchy, which has a colonial background spanning 200 years in Bangladesh (Sultana, 2021). Indigenous ethnic minority languages are confined to informal settings like home and family and are not given equal importance as Bangla and English. Indigenous languages have also received less political, historical, social, and cultural priority since independence in 1971. In 1972, the sole non-Bengali Indigenous Chakma parliament member, Manabendra Narayan Larma, protested against parliamentary decisions that marginalized Indigenous communities in Bangladesh linguistically, socially, and culturally (Sultana, 2021). The recognition of multilingualism in public policies and programs did not occur until the signing of the Chittagong Hill Tracts (CHTs) Accord in 1997 (Tripura, 2016). Indigenous students in Bangladesh are disadvantaged by an education system that overlooks their language, culture, and socio-economic background. The combination of these factors leads to a loss of interest in schooling and high dropout rates among Indigenous children. In 2017, primary school textbooks in Indigenous languages were introduced by the government to help address the issue of Indigenous student dropout (Deshwara, 2022). One of the political demands of the Chittagong Hill Tracts (CHTs) people is the right to education in their own mother tongues. The recognition of the right to 'Primary Education in Mother Tongues' is evident in Article 33(b)(2)2 of the Chittagong Hill Tracts Accord 1997, which is further supported by the Hill District Council (amendment) Acts and other official government policies. As a result, the national education policy of Bangladesh aims to promote and develop languages and cultures of Indigenous and small ethnic groups to facilitate learning in their mother languages, beginning at the primary level of education (Tripura, 2016). The policy is dedicated to guaranteeing that teachers from all native ethnic backgrounds are available and that textbooks are prepared in their own languages to enable Indigenous children to learn in their native tongues. Indigenous language textbooks are currently available for students from preprimary to grade 3 (Anam, 2024).

Due to the absence of written alphabets in many ethnic languages, the government currently has no plans to release textbooks in any language other than Chakma, Marma, Tripura, Garo, and Sadri (Anam, 2024). Nonetheless, there is still a scarcity of qualified teachers who are proficient in these languages, and no solution has been put forward for mother-tongue education at advanced levels (Dey et al., 2024). The curriculum has advanced for grades one to three, but the lack of trained language teachers has prevented its successful implementation (Deshwara, 2022). Indigenous peoples are urging the government to introduce comprehensive teacher training programs and include Indigenous language subjects in mainstream curricula to ensure the success of this project (Anam, 2024). This thesis seeks to explore the effectiveness of Indigenous teachers in teaching Indigenous languages to primary level public school students in Bangladesh, even in the absence of sufficient language proficiency, training, and logistical support.

1.1 Globally Education Rights of Indigenous People

Article 14 of the United Nations Declaration on Indigenous Peoples explicitly asserts the right of Indigenous peoples to govern and oversee their own educational institutions and systems (Champagne, 2011). Additionally, the International Labour Organization (ILO) Convention No. 169 (1989) on Indigenous and Tribal Peoples promotes the implementation of state-funded education programs that incorporate teaching in Indigenous languages and the creation of media and educational materials in local languages. Furthermore, it is crucial to provide Indigenous

individuals with opportunities to deliver education in their native languages in a manner that aligns with their cultural learning and teaching approaches (Nakata, 2023). Integrating Indigenous knowledge into the formal education system would be incomplete without implementing appropriate teaching methods (Okpokwasili & Oladipupo, 2019). Nonetheless, the value of these training techniques, pedagogical strategies, learning materials, and partnerships is contingent upon the teacher's fluency in the Indigenous language, whether spoken or written. If Indigenous teachers are competent in all skills of their languages, then, as stated by the Ontario Ministry of Education (2001), "native-language teachers must make every attempt to motivate students to learn a Native language by providing a supportive and stimulating environment for language learning" (p. 10). There is substantial evidence at the global level that Indigenous teacher education plays a significant role in revitalizing and preserving Indigenous cultures and languages (Haig-Brown & Hoskins, 2019). While a number of countries offer training to Indigenous educators to enable them to teach in their mother tongues, a teacher's professional preparation, coupled with sufficient understanding of an Indigenous language and language proficiency, enhances the effectiveness of teaching and learning for Indigenous communities.

1.2 Effective Teaching Pedagogy and Teacher Preparation

Effective teaching pedagogy contributes to student learning by improving support, engagement, and/or learning outcomes (Burgess et al., 2019). However, in order to ensure the effectiveness of pedagogy, it is imperative to remember pedagogy is not an isolated entity but a component shaped by various factors, such as curriculum, teacher efficacy, parental involvement, and school environment (Burgess et al., 2019). The usefulness of pedagogy also depends on adequate knowledge, appropriate long-term and short-term training before and during teaching, and ongoing development through experiences. Furthermore, when instruction is provided in

one's native language, the advantages include enhanced pedagogy, academic advancement, and more culturally attuned education (Laguarda & Woodward, 2013).

Teachers' preparedness is a crucial factor in determining their abilities to address the challenges of their profession (Viviani et al., 2022). Teacher preparation is believed to be vital in the decolonization of education (Poitras Pratt & Hanson, 2020). The sense of being prepared is influenced by both pre-service training and in-service experience (Viviani et al., 2022). To enhance teacher preparation and thereby facilitate effective learning for students, it is imperative to provide greater in-service training opportunities for teachers, particularly at the primary school level (Adekola, 2007).

Given the widespread marginalization of Indigenous communities worldwide and the important role of teachers in delivering high-quality Indigenous education (King & Schielmann, 2004), it is important to develop a comprehensive understanding of effective Indigenous teaching strategies that both promote Indigenous student participation and bolster the confidence of Indigenous educators (Han, 2022). Moreover, it is crucial to ensure continuous training for Indigenous teachers who are granted the opportunity to acquire proficiency in reading and writing Indigenous languages after assuming their teaching roles. But there is also a need for opportunities to practice these skills beyond the confines of the classroom. Practicing outside the classroom helps individuals to acquire the requisite knowledge to attain a better comprehension of their first languages and to be more adequately prepared to devise suitable pedagogical techniques. It will also help them gain confidence as Indigenous language educators.

1.3 Indigenous language textbooks, teaching strategies, and teacher preparation worldwide

Insufficient preparation of school administrators and Indigenous teachers can present obstacles to the adoption and successful implementation of Indigenous language textbooks and teaching strategies. Throughout history, schools have played a crucial role as instruments of cultural transmission (De Oliveira, 2020). They have also served to delegitimize and diminish knowledge that is passed down from one generation to another in societies that lack a written culture (De Oliveira, 2020). The establishment of schools, which followed Western traditions and perspectives across all continents, has often resulted from colonization processes (Tamayo-Osorio, 2017, as cited in De Oliveira, 2020). The practices of educational colonization were carefully planned, based on the belief that knowledge is universally applicable and certain viewpoints are considered superior (Tamayo-Osorio, 2017, as cited in De Oliveira, 2020).

Education policies in many countries actively support the notion of the universality of knowledge. For instance, education policies in Canadian provinces persistently promote assimilation through the enforcement of provincial educational standards (Coates & Leech-Ngo, 2016). In recent years, governments have employed diverse strategies to develop Indigenous teaching strategies to counteract an assimilationist approach to public education and revitalize Indigenous languages, cultures, customs, and rituals. Moreover, they embrace a range of measures to enhance the capacity of teachers to teach Indigenous languages. In Australia, for example, three Indigenous teaching methods—integrated teaching, community linking, and culture sharing—are employed to facilitate engaged learning for Indigenous students and to foster teacher self-awareness (Han, 2002). According to Han's research, it is recommended that preservice teacher education incorporate courses on ethnic and cultural issues to enhance

teachers' understanding of the educational disadvantages faced by Indigenous students and their families. The Department of Education in New South Wales, Australia, has partnered with multiple universities to develop the Enhanced Teacher Training Program (ETTP) (Labone et al., 2014). This program aims to enhance the teaching skills of final-year primary preservice teachers, specifically in effectively educating Indigenous students. Similarly, in Southern Ontario, Canada, an online survey was carried out by Lamb (2020) to assess Indigenous knowledge among Early Childhood Educators (ECE). The results indicated that ECE training programs do not sufficiently prepare educators to teach Indigenous students from diverse backgrounds. Lamb proposed a thorough revision of ECE curricula, incorporating the active involvement of Indigenous communities. Likewise, the University of Victoria in British Columbia offers a comprehensive Indigenous language revitalization undergraduate degree program, utilizing a laddered approach, which effectively fulfills multiple goals including the development of language speakers, teachers, planners, and advocates (Bergier & Anderson, 2021).

To attain these objectives, the involvement of Indigenous communities and language stakeholders is integral in the establishment of a comprehensive program that enables students to acquire proficiency in Indigenous languages and teacher qualifications through community immersion, as well as a range of certificate and diploma programs. In India, the Chakma Autonomous District Council (CADC) of Mizoram took steps to safeguard the Chakma language and script in 1997 by incorporating it into 85 primary schools under the CADC's administration (King & Schielmann, 2004). The scarcity of qualified Chakma language instructors was addressed through the effective execution of a teacher-training initiative. Brazil has also achieved notable progress in the establishment of Indigenous education, which currently thrives and imparts a wealth of knowledge to both Indigenous and non-Indigenous communities (Guilherme

& Hüttner, 2015). One of the key factors behind the significant increase in Indigenous schools and student populations in Brazil is the dedicated funding by the Secretaria de Educacao Continuada, Alfabetizacao e Diversidade (SECAD) / Ministry of Education and Culture (MEC), which is specifically designated for training Indigenous teachers. Numerous successful initiatives, interventions, and programs are contributing to the revitalization of Indigenous languages worldwide (Whitinui et al., 2018). Indigenous teachers who are proficient in multiple languages and adept at navigating both Indigenous and mainstream cultures are critical for ensuring the survival and advancement of Indigenous peoples and preserving their culture. However, the success of these teaching initiatives and strategies hinges upon the competence, literacy, and enthusiasm of teachers who belong to the same Indigenous group as the Indigenous students and conduct lessons in their native languages.

1.4 Bangladesh's Indigenous Education Initiative

In 2010, the national education policy of Bangladesh suggested the publication of books in Indigenous languages to preserve and uphold the dignity of Indigenous languages (National Curriculum and Textbook Board, 2023). This proposition was derived from the language movement of East Pakistan, which is now Bangladesh, that advocates for the right of individuals to freely express themselves and gain knowledge in their native languages (National Curriculum and Textbook Board, 2023). The 2010 education policy explicitly states that Indigenous people and small ethnic groups are to receive education in their native languages at the pre-primary level (Ministry of Education, 2011). Furthermore, the policy emphasizes the recruitment of qualified Indigenous teachers to instruct Indigenous students in Bangladesh. As part of this education policy, in 2017, Bangladesh primarily published books in five tribal languages: Chakma, Marma, Tripura, Garo and Sadri (National Curriculum and Textbook Board, 2023). In 2019, educational

authorities published books for grade two in those languages. Indigenous teachers were subsequently given training to teach primary level students in their ethnic languages.

1.5 Present State of Indigenous Education in Bangladesh

The government of Bangladesh is committed to providing education for all, including the approximately 2% of the population composed of Indigenous peoples. They have published free textbooks for each level, including math, story books, and language topics such as grammar. Training programs have also been introduced to assist teachers in providing instruction in these languages. However, in some respects, these initiatives seem unplanned and rushed, and they may not be sufficient since both teachers and students are new to reading, writing, teaching, and learning in Indigenous languages. Most Indigenous language instructors lack proficiency in reading and writing their languages prior to receiving training in them. Indigenous language texts have allowed some educators to encounter the alphabets of their respective languages for the first time. For instance, in a news interview, a parent, fueled by frustration, questioned the ability of teachers who lack knowledge of the alphabet to effectively teach children an Indigenous language (Anam, 2024). This situation stands in sharp contrast to the excitement that surrounded the release and dissemination of Indigenous textbooks in Bangladesh in 2017. Furthermore, despite new education policies and the provision of new Indigenous language curriculum materials, there has been a lack of adequate training for Indigenous primary school teachers to effectively teach their students in their mother tongue. Furthermore, the Third Primary Education Development Programme (PEDP3, 2011) does not provide any explicit guidance or instructional materials for Indigenous teachers who use their native language to teach the prescribed textbooks. Within the framework of the Third Primary Education Development Program of Bangladesh, there exist three principal teacher training programs: the Diploma in Education, demand-driven in-service

training, and teacher support networks (Ministry of Education, 2011). Consequently, despite the fact that five out of 54 Indigenous groups presently have access to pre-primary education in their native languages (The Indigenous World, 2022), the provision of such education continues to occur without the presence of adequately trained Indigenous teachers (Talukdar et al., 2020). This implies that there is a "dearth of fluent teachers with teacher training" (Coates & Leech-Ngo, 2016, p. 53) among Indigenous teachers in Bangladesh.

Previous research has established the positive impact of utilizing students' native language at the primary level on their academic achievements (Cekiso et al., 2019; Laguarda & Woodward, 2013). The competence of educators significantly impacts the performance of children during their primary years. Fauth et al. (2019) explored the effects of teacher competence on teaching quality and student outcomes, and their findings highlight the significance of teachers' general self-efficacy in predicting students' conceptual understanding of content and subject-related interest.

The majority of Indigenous individuals in Bangladesh reside in the Chittagong Hill Tracts (CHTs), totaling approximately three million people (Talukdar et al., 2020). These individuals do not use Bangla as their primary language and face challenges in utilizing their Indigenous mother tongues for early education. This region continues to be the most disadvantaged in the country, lagging behind in nearly all development indicators compared to the rest of the nation (Talukdar et al., 2020). Despite the constitutional recognition by the government of Bangladesh that education is a fundamental right for all children, there is a concerning rate of school dropout among Indigenous students in the country (Sarker & Davey, 2009). In accordance with the findings of the Directorate of Primary Education (2010), the attrition rate among Indigenous (Adivasi) children in their early academic years is 60%, surpassing the national average. This is

one of the reasons why only 22% of Indigenous students in Bangladesh have completed a year of primary education - a period of schooling in which basic literacy skills are developed (Sarker & Davey, 2009).

In Bangladesh, the national education system encompasses primary education from Grades 1-5 (Roy et al., 2020), catering to students aged 6 to 10 years (Bhuiyan, 2015). Preprimary education in Bangladesh is divided into two stages: kindergarten/nursery/playgroup for children aged 3-5, and pre-primary or kindergarten for children aged 5-6 (Begum, 2021). The enrollment rate of Indigenous students in CHT primary schools stands at 53%, while the national average enrollment rate is 77% (Islam & Wadham, 2016). This issue is not specific to Bangladesh as "Indigenous peoples are particularly affected [by low enrollment rates], and, throughout the world, they suffer from lower levels of education than their non-Indigenous counterparts" (Champagne, 2011, p. 130). In many nations, Indigenous students have a lower rate of school participation, a higher rate of dropout, and less favorable educational outcomes in comparison to non-Indigenous individuals. There is also a shortage of qualified Indigenous teachers in Bangladesh, which leads to Indigenous students being deprived of quality education (Talukdar et al., 2020). In addition, as in other jurisdictions, Indigenous educational programs in Bangladesh frequently do not provide opportunities for Indigenous peoples to engage in decisionmaking, curriculum design, teacher selection, teaching methods, and standard setting. Further, Indigenous communities are often deprived of the right to select educators, pedagogical approaches, and educational curricula (King & Schielmann, 2004, as cited in Champagne, 2011). Subsequently, tribal students in Bangladesh encounter obstacles in securing suitable employment compared to their Bangla-speaking counterparts (Talukdar et al., 2020). Thus, the inclusion of trained Indigenous teachers is imperative for the educational progression of primary level

Indigenous students. The presence of capable Indigenous teachers who are proficient in multiple languages, including their mother tongues, would greatly enhance educational opportunities in Indigenous communities and nationwide (Whitinui et al., 2018). According to Whitinui et al., the implementation of preparatory programs for prospective Indigenous educators in Australia has the potential to reduce the disparity in academic outcomes between Indigenous and non-Indigenous students. If Indigenous educators in Bangladesh receive proper training to teach in their native languages, it will enhance the effectiveness of teachers and foster academic success among their students (Harris & Sass, 2011).

1.6 Purpose of Study

Since little is known about Indigenous teacher training, the available Indigenous language teaching materials, teacher's editions, and logistic support from various authorities, this study aims to explore these areas. The purpose of this study is therefore to examine the current state of teacher training, teacher manuals, and other education-related logistics supports for teaching in an Indigenous language, along with the effectiveness of Indigenous teachers in instructing Indigenous pre-primary and primary school-going children in Indigenous languages in Bangladesh. To narrow down the study, the Chakma language is chosen out of five Indigenous languages taught at pre-primary and primary levels because Chakma is the largest Indigenous community in Bangladesh.

This study was designed to offer insight regarding the significance of training Indigenous teachers, including the perspectives of Indigenous teachers, Indigenous scholars, the Ministry of Education (MoE) of Bangladesh, the Ministry of Primary and Mass Education (MoPME) of Bangladesh and the Primary Teachers Training Institute (PTI) of Bangladesh. It also sheds light

on the language proficiency, education logistics, and other forms of educational support required to effectively teach Indigenous students in their native languages. Additionally, it highlights the potential advancements of existing Indigenous education programs and services for future development in Bangladesh. The research proposed in this study aims to answer the following core research questions:

- 1. What initiatives can the government and other educational authorities take to train Indigenous teachers to teach using curriculum materials (e.g., textbooks) written in their languages?
- 2. To what extent do trained Indigenous language teachers contribute to student achievement and retention?

Chapter 2: Literature Review

There are four sections in this literature review. The first section addresses the theoretical framework for the research carried out. The second section explores the conceptualization of effective primary level Indigenous teachers, emphasizing its significance in areas such as Indigenous teacher education, Indigenous teachers' language literacy, and teacher teaching curricula. The context of Bangladeshi Indigenous education and a number of associated initiatives are discussed in the third section. This section contains a summary of selected research literature and reports from 2000 onwards, focusing on enhancing the abilities of Indigenous teachers to instruct Indigenous primary school students in their Native languages in Bangladesh. The fourth section of this chapter focuses on research and initiatives to increase Indigenous teachers' competency in several different countries.

2.1 Theoretical Framework

This study is guided by Kennedy's (1998) concept about in-service teacher education, and Blank and Alas's (2009) view of the impact of teacher professional development on student achievement. The proficiency of teachers directly affects the quality of education. Darling-Hammond (2000) notes that teachers who possess a deep knowledge of their subject and excel at teaching can significantly improve student learning. Well-prepared teachers can have a more significant impact on student achievement than factors like poverty, language background, and minority status (Darling-Hammond, 2000). When it comes to in-service teacher education, Kennedy (1998) underscores the value of collaboration, long-term professional development, classroom practice programs, classroom visits, and content-driven in-service programs. Blank and Alas (2009) argue that enhancing the quality and performance of public schools hinges on

improving teacher quality, encompassing teacher preparation, continuous professional development, and enhancing teacher effectiveness in classrooms.

Lawlor (2013, as cited in Orchard & Winch, 2015) argues that teachers require two types of preparation: first, a deep and thorough academic background in their subject, and second, closely supervised on-the-job training. Blank and Alas (2009) state that standards-based educational improvement ensures teachers are knowledgeable and proficient in the subjects they teach and draw on the most effective pedagogy in instructing those subjects. In Bangladesh, Indigenous teachers at the primary school level have taught subjects like Bangla, English, and math for much longer than they have been teaching Indigenous languages as a subject. The latter began in 2017, with mostly novices who had less Indigenous language literacy. Hence, an inservice education program is imperative for them to become proficient and experienced. Even with excellent pre-service training, teachers cannot be fully prepared for every career challenge (OECD, 2009). To maintain a high standard of teaching and retain high-quality teachers, education systems provide teachers with opportunities for in-service professional development. Such professional development is defined by the Teaching and Learning International Survey (TALIS) as skills, knowledge, expertise, and other characteristics of a teacher that are developed through training activities (OECD, 2009).

Teachers can more effectively contribute to student success if they have sufficient opportunities for professional development. Professional development has been recognized as a way to enhance teachers' knowledge and skills, leading to improved student achievement (Murphy, 2005, as cited in Holloway, 2006). Bressoux (1996) showed that teacher training and experience significantly affect pupils' test scores. Teachers with experience are the most effective, while teachers with less professional development and training are the least effective.

Long-term, high-quality training has been shown to enhance teacher efficiency and result in the best student performance (Althauser, 2015). Through his research, Althauser determined that a two-year, high-quality, job-integrated professional development program positively impacted third-grade math teachers' teaching abilities and student achievement. According to Kennedy (1998), teachers often criticize one-time short workshops in education for being too short, irrelevant to teaching, treating teachers as passive, and focusing on the wrong topics.

With Indigenous languages now being taught in government primary schools in Bangladesh, many teachers are learning to read and write in their native language for the first time. Some even saw letters in their languages for the first time after receiving new curriculum materials. With just a few weeks' training, they conduct classes in these languages. Short-term and limited knowledge of the subject makes it difficult for teachers to effectively contribute to the success of their students. It can be argued that Indigenous teachers in Bangladesh, despite their enthusiasm, lack the necessary preparation to provide quality education to students in Indigenous languages. Teacher professional development opportunities can significantly impact Bangladeshi Indigenous teachers and students, given that Indigenous reading and writing skills are entirely new to them.

In summary, the concepts by Kennedy (1998) and Blank and Alas (2009) provide the theoretical framework for this thesis, as in-service teacher education and professional development are essential to improving the effectiveness of Indigenous teachers. Through training, they can better provide primary level children with a higher quality education and enable students to master all four Indigenous language skills: listening, speaking, reading and writing.

2.2 Importance of Effective Indigenous Teachers

An effective teacher plays a major role in making teaching and learning successful. An educator has the potential to make a considerable positive impact on the lives of their students and may enter the classroom with a deep belief that education is benevolent and worthwhile (Bishop & Durksen, 2020). An effective teacher possesses two key qualities: personal qualifications and professional qualifications (Köse & Uzun, 2018). A successful teacher is characterized by their professionalism, an ability to motivate students, and an unwavering focus on achieving positive outcomes (Demirel, 2000, as cited in Köse & Uzun, 2018). Demirel suggests that effective teachers must possess a wide range of professional skills, which include the ability to a) plan educational activities, b) utilize appropriate teaching methods and techniques, c) communicate effectively, d) employ classroom management strategies, e) use time wisely, f) properly evaluate student learning, and g) provide guidance to students. Furthermore, a teacher must have extensive knowledge and be able to apply it to different situations (Pantić & Wubbels, 2010).

Teacher effectiveness holds great significance for Indigenous teachers who teach courses in Indigenous languages alongside other subjects in different languages, and training can be tailored to enhancing teacher effectiveness. Te Kotahitanga, for example, is a Kaupapa Māori research and development project designed to address the educational disparities faced by Indigenous Mori students in New Zealand (Bishop, 2010). The project creates an Effective Teaching Profile consisting of two parts, derived from conversations with Māori students, parents, principals, and teachers. Teachers in Te Kotahitanga schools implement this profile to enhance their professional development, leading to notable improvements for Māori students in various aspects. The first part of the project outlines two major understandings (positive and

negative) that effective teachers of Māori students possess. Positive relationships and interactions in the classroom are based on teachers' positive and non-deficit evaluations of students and their families, who saw them as having a wealth of relevant experiences. Negative deficit thinking by teachers contributed to negative relationships and interactions between students and their teachers, which in turn resulted in frustration among all parties. Part two of Te Kotahitanga identifies six relationships and interactions that are visible on a daily basis in these effective teachers' classrooms: taking care of students as Māori, caring for their performance, creating a secure, well-managed learning environment, engaging in effective learning interactions with Māori students, integrating a variety of teaching strategies into the classroom, and using student progress to inform future teaching practices.

It is essential to remember that the success of an Indigenous teacher is not solely dependent on teachers themselves. Instead, this success is also dependent on a country's or jurisdiction's policies, society, educational resources, and financial support. For example, many Canadian Indigenous schools started teaching Indigenous languages in the early 1970s. However, a lack of teachers, funding issues, staff turnover, limited class time, and dissatisfaction with student progress hindered the progress of some of these language programs (Toohey, 1985).

According to Toohey, teachers expressed concerns about their lack of preparation in language teaching, insufficient support from institutions, and limited resources for curriculum development. In addition, in some cases school administrations did not give Indigenous language programs priority, and government funding for teachers, programs, and curriculum materials was uncoordinated (Toohey, 1985).

Stiles (1997) asserts that effective Indigenous language programs necessitate the integration of language and culture, the availability of Indigenous language-focused instructional

materials, and the active support and involvement of the community and parents. The convergence of all these factors can help schools effectively combat high dropout rates among Indigenous communities. However, there is a perception in some jurisdictions that efforts to support Indigenous education, language revitalization, learning, and teaching are seen as detrimental to national unity and sovereignty. Thus, Indigenous language teachers sometimes encounter social, cultural, financial, and regulatory obstacles that hinder their effectiveness. As a result, to be successful, Indigenous language education should be created and coordinated in partnership with both Indigenous and state-funded entities.

2.2.1 Indigenous Teacher Training

Teacher training is a heavily debated topic in education (Goldhaber et al., 2013). Teacher training does not aim to improve the brilliance of teachers; it aims to improve the effectiveness of teachers who lack the requisite knowledge and skills (Brumfit, 1979). The presence of teachers with appropriate training who have the ability to provide instruction in their mother tongue is a critical factor in ensuring quality education (Cekiso et al., 2019). Irrespective of the training provided to teachers, its effectiveness will only be effective if it aligns with the objectives of the curriculum they are expected to teach. It is worth emphasizing that one of the primary reasons why teacher training programs are often deemed ineffective is their lack of applicability to the real-world classroom environment. Teacher training programs should, as a result, be customized to align with the specific goals of each subject/course included in curricula. Such an approach better enables teachers to develop the skills needed to foster an optimal classroom experience and improve student outcomes.

Throughout the past century, the United States has witnessed the development and promotion of four distinct theories of teacher training (State Normal School for Women at Harrisonburg et al., 1931/2011). These are as follows:

- 1. Subject matter efficacy is of primary importance because knowledge of the subject is all needed; method or practice is of secondary importance.
- 2. Efficacy in practice or method of teaching is of primary importance, with subject matter taking a secondary role.
- 3. The selection of subject matter directly impacts efficacy, as it should align with the tasks to be completed or professionalized content.
- 4. The level of teaching efficacy relies on the simultaneous mastery of both subject matter and teaching skill.

While these approaches are distinct from one another, each of these theories contends that teachers' subject matter knowledge and efficacy work together to make teaching successful.

While it cannot be denied that training can be advantageous for a teacher, it is essential to acknowledge that it is not the only factor that determines a teacher's competency. It would be unreasonable to expect a student to become a competent teacher immediately after finishing a training program (Brumfit, 1979), especially if they do not possess sufficient knowledge of the subject they will be teaching.

When a teacher teaches in their mother tongue, they should be highly proficient in that language, as well as knowledgeable about teaching methodologies. Research conducted by Chihana and Banda (2013, as cited in Cekiso et al., 2019) found that teachers in Malawi encountered several challenges when implementing a mother tongue literacy course in grade 1.

These challenges included the language used for literacy teaching and learning, the learning materials available, and whether teacher training included how to utilize a mother tongue in instruction. Cekiso et al. (2019) pointed out that the existing research literature demonstrates a need for teachers to be proficient in the language used for instruction and the pedagogy of teaching and learning through a mother tongue is an area of significant importance. De Korne (2013) observed that while teacher competencies should match with the educational goals of Indigenous language programs, it is important to note that these goals vary from building general language and cultural awareness (limited enrichment), enhancing functional communication skills, as well as developing advanced fluency and literacy in the target language (full immersion). In the case of full immersion, teachers must possess specialized skills and be able to teach math, science, and other subjects in the Indigenous language. Teachers whose proficiency is more limited may be able to successfully deliver enrichment classes (De Korne, 2013). Therefore, the establishment a separate teacher certification for of Indigenous language programs could provide more opportunities for local language communities to make education programming decisions in accordance to their priorities and ideologies (De Korne, 2013).

2.2.2 Necessity of Teacher Education to Teach Indigenous Language Textbooks

The teacher manual (or resource guide) functions as a pragmatic guide, intended in part to inspire educators to be inclusive practitioners and facilitate the promotion of inclusive education across different contexts - the school, the classroom, and the individual (UNICEF, 2018). The teaching manual should offer school leaders and teachers a range of activities that can be implemented directly. According to Vygotsky (1987, as cited in Agnoletto & De Carvalho Kuerten Dellagnelo, 2018), "both the textbook and the teacher's manual function as mediating artifacts" (p. 18). The objective of both the textbook and teacher manual is to enhance the

effectiveness of classroom practices and provide guidance to novice teachers as they navigate the intricate process of planning and teaching a foreign language course (Agnoletto & De Carvalho Kuerten Dellagnelo, 2018).

In Bangladesh, both Indigenous teachers and children are now engaged in teaching and learning their Indigenous mother tongue, almost as if it is a foreign language. They are learning an Indigenous language as a foreign language because while speaking and listening skills in Indigenous languages are well-established, reading and writing skills are relatively new and unfamiliar. In Bangladesh, public primary schools require both Indigenous textbooks and teaching manuals to teach Indigenous languages from pre-primary to level three in all five Indigenous languages. When it comes to teaching pedagogy on a specific topic, a teacher's guide can serve as a valuable resource, offering a practical framework that considers the interrelationships between the actions of the teacher and students, as well as the intended learning outcomes (Ball & Feiman-Nemser, 1988). Novice educators may find it advantageous to engage with teacher's guides and supplementary curriculum materials to facilitate the development of their own instructional units aligned with the subject matter objectives.

2.3 Primary Education of Indigenous Students in Bangladesh

According to the Directorate of Primary Education (2011), Bangladesh is home to approximately 3 million Indigenous people. Most of them reside in the flatlands, while the rest can be found in the Chittagong Hill Tracts (Chakma & Chakma, 2022). Their common dwelling areas are mainly located in the Chittagong Hill Tracts (CHTs) and the rural regions of Mymensingh, Sylhet, Dinajpur, and Rajshahi (Directorate of Primary Education, 2011).

While it has been reported that there are 54 Indigenous groups in Bangladesh who collectively speak at least 35 languages (Chakma & Chakma, 2022; Jacquelin-Andersen, 2018), a government draft report reveals that there are 45 officially recognized and distinct ethnic groups residing in 28 districts of Bangladesh (Directorate of Primary Education, 2011). The CHT district of Khagrachari, Rangamati, and Banderban is home to 13 out of the 45 tribes in the area (Directorate of Primary Education, 2011). These 13 Indigenous groups have their own unique identities, diverse racial backgrounds, languages, and rich cultural heritage. They are collectively known as the "Jummas," the "Adivasi," or the "Pahari" (Miller, 2023, p. 41). The largest Indigenous groups in Bangladesh are the Chakmas, Marmas, and Tripuras.

Bangladesh has approximately 65,566 public primary schools (Bangladesh Bureau of Educational Information and Statistics [BANBEIS], 2022), of which 1,561 are in hilly areas where most Indigenous people live (Unrepresented Nations, 2015). The educational attainment of Indigenous children in Bangladesh falls behind that of their non-Indigenous peers (Islam & Wadham, 2016). In response to this disparity, the Bangladesh government has implemented various initiatives to address this issue. In 1996, the government ratified the Chittagong Hill Tracts (CHTs) accord with the intention of acknowledging multilingualism in public policies and programs. The accord committed a total of 5% of government jobs to Indigenous peoples in Bangladesh as well (International Labour Organization, 2017). In 2017, the education system introduced Indigenous language as a subject in about 210 public primary schools, along with the distribution of textbooks to Indigenous children (Unrepresented Nations, 2017). Mother tongue-based education has been implemented to ensure a greater level of inclusion of Indigenous children in the Bangladeshi educational system (Murshed & Imtiaz, 2020). Additionally, preschool textbooks have been published in five different Indigenous languages, and

approximately 25,000 of these books have been distributed (International Work Group, n.d.). Non-governmental organizations (NGOs) have also launched an education initiative called "Education for Indigenous Children" resulting in the delivery of about 30,000 Indigenous language classes (Singh & Espinoza-Herold, 2014).

Despite the implementation of numerous initiatives, Indigenous people in Bangladesh still have limited access to education (Islam & Wadham, 2016). The enrollment rate of Indigenous children in primary schools within CHT areas remains at 53% (United Nations Educational Scientific and Cultural Organization, 2008) as compared to the national Net Enrollment Rate (NER) of 97.42% (Bangladesh Bureau of Educational Information and Statistics [BANBEIS], 2022), suggesting. This situation deteriorated when the dropout rate of Indigenous students at the primary level in the Chittagong Hill Tracts region reached 59% in 2012 (Unrepresented Nations, 2017).

2.3.1 Bangladeshi Indigenous Teachers' Preparation to Teach Indigenous Languages

Professional development influences a teacher's ability to become an effective and knowledgeable educator. However, it is impractical for an individual to effectively instruct children when, as a teacher, they are beginning to learn two out of four skills (reading and writing) in their native language before formally teaching the language in the classroom within a few weeks. Brumfit (1979) emphasizes that while training can assist in preparing teachers, it is unrealistic to expect immediate competency from a student upon completing a teacher training course. In Bangladesh, Indigenous teachers commence teaching in their native languages after only a brief training period, despite having no prior experience in reading or writing in their

native tongue. Nonetheless, the efforts of the Bangladesh government to expand Indigenous language education have been notably ambitious. For instance, the Bangladesh government plans for Expanding Education of Indigenous Children (EETC) include initiatives to extend and rehabilitate existing government schools, build capacity in Indigenous institutions, encourage parents to send their children to school, develop supplementary reading materials in Indigenous languages, and recruit and train teachers in the hill tracts communities (Directorate of Primary Education, 2011). In addition, Bangladesh's Fourth Primary Education Development Program (PEDP 4) emphasizes the need to train teachers and staff properly and involve parents and the community to support their children's education (Directorate of Primary Education, 2019).

Despite a strong desire to develop Indigenous populations' education, the Government of Bangladesh needs to accelerate implementation initiatives and processes. The slow implementation of the Bangladesh government initiatives has led to a shortage of properly trained Indigenous teachers, which impacts the anticipated positive outcome of mother-tongue-based education (Unrepresented Nations, 2017). Consequently, instead of utilizing Indigenous languages, for practical reasons Indigenous teachers sometimes resort to using Bangla in the classroom (Unrepresented Nations, 2017). Consequently, government and school authorities have been criticized by Indigenous communities for implementing pre-primary education in Indigenous languages without adequately preparing teachers (Unrepresented Nations, 2017).

2.4 Research on Indigenous Teacher Training in Different Countries

According to Hamilton-Ekeke and Dorgu (2015), the training of Indigenous teachers in Indigenous knowledge and language helps to ensure that students are taught in a culturally sensitive manner that focuses on Indigenous traditions. In this way, going beyond the Western

curriculum comprising reading, writing and mathematics, benefits both Indigenous and non-Indigenous teachers and students. This is reflected in the research that has been conducted on Indigenous teacher training in different countries. In Brazil, for example, Indigenous people have prioritized their legal rights, their own educational models, and Indigenous teachers' training (Gomes et al., 2020). Indigenous communities assume that by including Indigenous rights in the national political agenda, they can achieve official recognition for an Indigenous education model and establish specific policies for training Indigenous teachers. Ultimately, intercultural teacher training programs developed in Brazilian universities aim to support training courses for Indigenous teachers in rural areas (Gomes et al., 2020). Brazil has also attempted to synchronize its Indigenous school education policies with the policy for training Indigenous teachers.

In Canada, Indigenous teacher education programs are a direct reflection of the national policy document *Indian Control of Indian Education*, which was issued in 1972 and written by Indigenous leaders to ensure the best possible education systems for Indigenous students (Haig-Brown & Hoskins, 2019). This policy document stresses the control of education by Indigenous peoples and prioritizes teachers' knowledge of Indigenous history and philosophies. *Indian Control of Indian Education* highlights that "the need for Native teachers and counselors is critical and urgent; the need for specially trained non-Indian teachers and counselors is also very great" (Haig-Brown & Hoskins, 2019, p. 4). Bilingual teacher training in Peru's Cusco region has long emphasized the importance of bilingual education for enhancing the academic outcomes of Quechua-speaking children (Pérez, 2018). Despite many efforts, bilingual education has yielded disappointing results in Peru, failing to convince teachers and parents of its practicality. Consequently, a program was established in Peru to train Indigenous teachers with a strong emphasis on interculturality, resulting in significant modifications to the training content,

methods, and activities. It is notable that in New Zealand "in the late 1980s, Māori medium initial teacher education emerged as a response to demand by Māori communities for appropriately qualified teachers to support children's learning in Māori medium settings or schools" (Hohepa & Hawera, 2019, p. 259). The Māori language is an option for initial teacher education in New Zealand so that these teachers can support Indigenous language programs in schools that introduce the Māori language in combination with Māori culture.

Regarding the training of Indigenous teachers, the countries noted above have variously prioritized the legal rights and official recognition of Indigenous populations. Their education models and training have incorporated intercultural approaches that link teacher education programs with Indigenous languages, culture, knowledge, and beliefs. In comparison, in Bangladesh education authorities have only recently begun to implement comparable measures.

2.4.1 Examples of Successful Indigenous Teacher Training Models/Projects/Methods

A number of countries and jurisdictions have adopted successful models, projects, and methods for Indigenous teacher training and Indigenous language instruction. The educational attainment of Indigenous students has been a focus for both governments and education systems in Australia for over 30 years. One initiative, the Enhance Teacher Education Program in New South Wales trains teachers to collaborate with Indigenous students, families, and communities (Labone et al., 2014). The New South Wales Department of Education and four universities introduced an enhanced teacher training program in 2008 to improve teachers' ability to work with Indigenous students. This initiative provided additional training for the final year of primary education teacher training so that students interested in teaching in schools with high Indigenous

enrollments could be better prepared. The program had four key components: a) knowledge of Indigenous history and culture, b) development of cross-cultural communication skills, c) providing for a holistic approach involving communities and government agencies, and d) the development of appropriate strategies for classroom management and pedagogy. The justification for each of these four elements was based on research, current policies, and the program's designers' personal experience with Indigenous education (Labone et al., 2014).

The Growing Our Own program is an innovative collaboration between Catholic Education Northern Territory and Charles Darwin University in Australia, delivering Initial Teacher Education in remote Indigenous communities that is responsive to remote Indigenous communities' needs and priorities (Van Gelderen, 2017). This initiative emerged in response to a severe shortage of qualified Indigenous teachers in remote areas of Australia's Northern Territory where Indigenous students make up 40% of the school population but only 4% of the teaching staff. The objective of this program is to provide training to local Indigenous "Assistant Teachers" in order to enable them to become fully certified teachers in their respective home communities. The program employs a "two-way" pedagogical method to enable Indigenous educators to incorporate their cultural expertise into the curriculum. An integral aspect of this program is its utilization of "place-based pedagogy" which involves instructors travelling to communities to personally instruct pre-service teachers and enable them to maintain a close connection to Indigenous lands and families. The Growing Our Own model has been a successful Indigenous teacher pathway which has coincided with higher school enrollment, retention, and graduation rates for Indigenous children (Van Gelderen, 2017).

In Canada, where education is not overseen by national government policies, the many provinces and territories provide teacher training programs designed to improve the efficacy of

prospective Indigenous educators (McIvor & Ball, 2019). Some of these programs include Indigenous curricula, teaching and learning resources and Indigenous languages. The *Cree Way Project* was established in 1973 by John Murdoch, a principal, in response to the Canadian-developed curriculum's inadequacy for Cree children in the province of Quebec (Stiles, 1997). The goals of the Cree Way Project include:

- Implementing the Cree language in schools to legitimize Cree culture and foster the development of a unique Cree Indigenous identity;
- The transition from an oral-based culture to one that values literacy and written communication;
- Development of a curriculum based on a Cree nation conceptual framework; and
- The implementation of a Cree curriculum in public schools.

While Cree writing was established over a century ago, it was not until 1973 that educational resources in the Cree language were provided to public school (Stiles, 1997). In the past, the Cree community encountered a significant barrier to education and employment because they could not read or write in their own language. In one early language program, a resource language instructor taught Cree to students in daily half-hour sessions while members of the Waskaganish Cree community created the curriculum materials and resources, including traditional handicrafts. As a result of this initiative, over 500 Cree textbooks developed in local workshops have since been distributed to and used by teachers in seven other James Bay Cree communities in remote areas of Northern Quebec (Stiles, 1997). In 1988, a preschool immersion program was created in response to the tendency of teenage language learners to use "sloppy" Cree. This program was conceived in part as a means to halt the erosion of Cree language use and foster fluency prior to students entering public schools. While the Cree Way Project was

supported by a number of government and educational authorities, Cree teachers could not obtain teacher certification at the time of the program's inception in 1973 (Stiles, 1997). In response, the University of Quebec initiated a Cree language teacher certification program in James Bay communities. The introduction of this teacher certification program led to a rise in Cree speakers becoming certified teachers. Currently, at Waskaganish, a Cree community of about 2,500 people, 50% of the teachers are native Cree speakers. School boards and teachers serving Cree communities are regularly engaged in staff development cooperative efforts to design a curriculum and teaching resources that respect Cree language and culture Local resource centers are also responsible for developing locally made artifacts, crafts, and reference materials. Since the program's introduction, the high school dropout rate has been significantly reduced and graduates are increasingly returning to the community to contribute their skills to an expanding bilingual community (Stiles, 1997).

The *Hunn Report* in New Zealand highlighted the role of the Māori language in teacher preparation, emphasizing the importance of policies and resources that significantly enhanced Māori outcomes in education (Hohepa & Hawera, 2019). A Māori language immersion program called *Te Kohanga Reo* (TKR) exposes children from birth to age eight years old to the Māori language in a home-like environment. The program's major objective is to reintroduce and revitalize the Māori language in the community; to do this, only fluent older speakers and cultural models can be teachers or aides (Stiles, 1997). Since its inception, the federal government has provided nominal support to the Te Kohanga movement and charitable trust has been created through a collaboration between the Māori people and the government. In 1989, a restructured Ministry of Māori Affairs, was created with the power to devise policies for Indigenous Māori programs (Stiles, 1997). The primary factors contributing to the growth and positivity of *Te*

Kohanga Reo TKR programs are the support of the community, staff, volunteer assistance, which is enhanced by the cultural certification of the Kaiakos (teachers and aides). Furthermore, a formally approved training program has also been implemented the notable success of this program has drawn interest from other countries with Indigenous populations.

In State of Idaho, which has five predominately rural Indigenous tribes that are officially recognized by United States federal government, the Idaho State Board of Education established the Idaho Indian Education Committee (IIEC to address schools' perceived failure to meet the needs of Indigenous students (Anthony-Stevens et al., 2020). The IIEC has strived to improve academic outcomes and provide culturally relevant education to Indigenous tribes from K-12 to higher education. The University of Idaho has also introduced the Indigenous Knowledge for Effective Education Program (IKEEP) to support the initiatives of the IIEC. The university-level program is designed to prepare Indigenous preservice teachers for the classroom and help to improve Indigenous education in Idaho. IKEEP seeks to integrate mainstream educational theories and content with Indigenous educational theories and content through specialized courses and collaboration with Indigenous educators (Anthony-Stevens et al., 2020). The program also includes specialized advising services and a regional mentorship network for Indigenous teachers to support scholars.

It is found by reviewing the literature that the training of Indigenous teachers in Bangladesh is imperative in promoting educational development and academic success of Indigenous students in the country. Around the world, there are many examples of Indigenous teacher training and professional development programs that serve Indigenous populations well and help these communities and nations to preserve and promote Indigenous history, culture, and language.

Chapter 3: Methodology

This study examines Indigenous teacher training, government initiatives, logistical support, teaching and assessment strategies, and their impact on effectively instructing Indigenous pre-primary and primary school children in their Indigenous languages in Bangladesh. Chakma, Garo, Kokborok, Marma and Sadri are the five Indigenous languages taught at the pre-primary and primary levels in Bangladesh (Dey et al., 2024). I chose a qualitative research approach for this study because the researcher plays a crucial role in qualitative research by directly collecting data from the real setting (Bogdan & Biklen, 2003). I chose qualitative research because it allows for detailed descriptions and the use of interview quotes, field notes, and official records to compliment the information presented. Utilizing interview data was imperative for this study, as it enabled me to center my research around the perspectives of 14 Indigenous primary school teachers who are actively involved in teaching an Indigenous language.

Because I conducted the research in Canada, I could not visit the location, Chittagong Hill Tracts (CHT), Bangladesh, to interview the Indigenous primary school teachers who are the primary subjects for this work. Instead, I conducted open-ended online interviews with them. I asked them about their thoughts on effectively teaching in an Indigenous language in primary schools in Bangladesh. Further, I sought their advice on the necessary changes, additions, or modifications needed to enhance the effectiveness of Indigenous language instruction. In addition, I relied on interviews, field notes, journal articles, government documents, newspaper articles, publications from Bangladesh and other countries, and Indigenous organizations as primary and secondary data sources. I acquired a substantial volume of data that can be interpreted in various ways since qualitative data analysis typically involves a significant amount

of interpretation (Cohen et al., 2007). This qualitative study utilizes systematic methodologies to synthesize additional sources of information beyond the collected data that may help to answer the questions posed in this study (Berg, 2001). Specifically, I used a phenomenological quantitative approach to understand the meaning(s) of events and interactions between people within specific contexts (Bogdan & Biklen, 2003). This helps to avoid potential tautologies and confirmation biases found in previous research and enables a more accurate representation of participant experiences (Pandin & Yanto, 2023). The phenomenologist's aim is to understand social and psychological phenomena through the perspectives of the people involved (Welman & Kruger, 1999, as cited in Groenewald, 2004).

According to Greene (1978, as cited in Bogdan & Biklen, 2003), phenomenologists assume that interaction with other people assists us in interpreting our experiences in various ways and that the meaning we come up with through our experiences constitutes reality. Existential phenomenology intends to capture the human experience as it occurs in daily life instead of an artificial environment (Pandin & Yanto, 2023). My choice of this qualitative research model is appropriate because in Bangladesh, after the announcement of the National Education Policy-2010, the government nationalized 210 primary schools in the Chittagong Hill Tracts (CHT) region, where most of the Indigenous people reside, distributed 25,000 books among children written in their Indigenous languages, and recruited qualified Indigenous teachers to educate them (International Work Group, n.d.). However, one thing they did not do is sufficiently train Indigenous teachers to learn the Indigenous language, as many are unable to read and write in Indigenous languages and thus struggle to teach the Indigenous language effectively. the Ministry of Education (MoE) and Directorate of Primary Education (DPE) of Bangladesh also did not provide teachers with other logistical support, such as teaching manuals, to teach those Indigenous language textbooks in the classroom. As a result, three million

Indigenous people in CHT remain the most disadvantaged in the country, unable to use their mother tongue for primary education (Talukdar et al., 2020) and unable to reach their expected level of competence.

I specifically use existential phenomenology to conduct my research since it focuses on centering Indigenous teachers' perceptions and experiences in order to better comprehend the meanings of their experiences. The researcher unveils the underlying significance of their experiences through the breakdown of participant commentaries. Existential phenomenology intends to capture the human experience as it occurs in daily life instead of an artificial environment (Pandin & Yanto, 2023). Additionally, the phenomenological approach suits my study since my primary objective is to conduct semi-structured interviews to obtain insights from Indigenous primary school teachers regarding the necessity of Indigenous teachers to effectively teach in Indigenous languages. I believe this method is "adequate for answering the questions that the inquiry has posed" (Kilbourn, 2006, p. 558).

3.1 Sample Collection

Since my research questions focused on the effectiveness of Indigenous teachers to teach in their language, the primary location of my study was at government primary schools in Bangladesh where Indigenous teachers live and teach. Specifically, the study was conducted with Indigenous government primary school teachers who teach using Chakma-language textbooks published by the National Curriculum and Textbook Board (NCTB).

The Indigenous population of Bangladesh has historically been concentrated in the border regions of the northwest, the central north, the northeast, the south, and the southeast parts of the country (Dhamai, 2014). Of those regions, I selected the southeastern Chittagong Hill Tracts (CHT) area of the country for data collection. CHT consists of three districts, Rangamati, Khagrachhari, and Bandarban, which occupy one-tenth of Bangladesh's total area (Chittagong

Hill Tracts, 2021). It is estimated that three million Indigenous people live in this region (Talukdar et al., 2020), which is approximately 1% of the country's total population (Cummins et al., 2012). There are 1,561 primary schools in the three hill districts (Unrepresented Nations, 2015).

I chose snowball sampling to conduct this study since I neither belong to an Indigenous group nor reside in the CHT area in Bangladesh. The snowball sampling method is suitable for my study as it is used to recruit study participants when members of the desired population are hard to reach or access because they feel disempowered, socially excluded, or vulnerable (Sedgwick, 2013). According to Parker et al. (2019), snowball sampling involving networking and referral is one of the most popular methods of sampling in qualitative research. Researchers usually start with a few initial contacts who fit the research criteria and are invited to participate. Researchers ask participants to recommend other contacts who match the research criteria and may also be willing to participate, who are then asked to recommend other potential participants. In this way, researchers establish initial links through their social networks and then connect with an increasing pool of participants from these links (Parker et al., 2019). Sampling is usually completed when the target sample size or saturation point is reached. For this study, I was assisted by a Bangladeshi Indigenous student at Memorial University of Newfoundland, an undergraduate student at University of Chittagong, Bangladesh, and a Chakma primary school teacher, who helped to confirm the Indigenous background of all interview participants. The people who assisted me with the information of participants and helped me to contact all interviewees are Chakma speaker from Khagrachhari district of Chittagong Hill Tracts (CHTs) of Bangladesh.

14 Chakma Indigenous primary school teachers from the Khagrachhari district of Bangladesh were recruited for this study. This sample size is consistent with that recommended by Stenfors-Hayes et al. (2013, as cited in McClenny, 2020) who suggested that interview sample sizes rang "between 10 and 30 participants to ensure sufficient variation in sampling" (p. 3). Similarly, Trigwell (2000, as cited in McClenny, 2020) suggested that the number of participants should be at most 20 for reasonable variation and data management. I used convenience sampling to recruit 14 participants who were close to hand and easily accessible (Berg, 2001). Convenience sampling was necessary in my study since the Chittagong Hill Tracts (CHTs) of Bangladesh have limited network coverage. Convenience sampling refers to a method of collecting samples based on their convenient proximity to a specific location or Internet service (Edgar & Manz, 2017). I could not select any Chakma primary school teachers as interview participants who had lived outside the mobile network area for a long time. I required individuals residing in the mobile network coverage area of CHTs, or those who frequently use the mobile network and Facebook Messenger app while connected. I required participants to have access to mobile networks and the Facebook Messenger app for my online interviews. For example, two interview participants work as teachers in a remote area of the Khagrachhari district of Chittagong Hill Tracts (CHTs), where no mobile network is available for communication. However, they used to visit the district town after one or two weeks. I used to send them messages on Facebook Messenger, asking them to contact me when they arrived in the district town. They replied to me once they arrived in the city after one or two weeks. I reached out to them to schedule the interview time. Therefore, I had to blend snowball and convenience sampling while gathering the samples.

I created a group on the Facebook Messenger app and invited these Chakma primary school teachers to join this group and shared it with others to facilitate recruitment. When participants indicated they wished to take part in the interviews, I sent these teachers a formal informed consent letter (Appendix A).

3.2 Data Collection Methods and Procedures

Qualitative phenomenological research data can include interview transcripts, observation field notes, official documents, newspaper articles, or even diaries and photographs (Bogdan & Biklen, 2003). While qualitative studies can rely solely on one data source, such as interviews, for my research, I preferred triangulation, which involves collecting information from more than one source (Bogdan & Biklen, 2003). Data triangulation helps to increase data accuracy and reliability, reducing research bias (Cohen et al., 2018). I utilized semi-structured interviews with Indigenous teachers as the primary data sources. I also utilized secondary sources such as Bangladesh government documents, newspaper articles, documents on teacher training, as well as reports from Indigenous organizations in Bangladesh and worldwide.

I followed Le Compte and Preissle's (1993) categorizations of qualitative interviews, such as the type of person being interviewed and the structure of the interview (as cited in Goetz & Le Compte, 1986), for my study. For the first category, the type of person being interviewed, I selected 14 Indigenous Chakma government primary school teachers who teach Chakma language. For the second group, the structure of the interview, I relied on semi-structured interviews for data collection for five reasons. The first advantage of semi-structured interviews is that they may provide more detailed information than alternative data collection methods (Cohen et al., 2018, cited in Xerri, 2018). Secondly, the adaptability of semi-structured interviews facilitates the elicitation of more comprehensive responses from the interviewee, empowering them to answer using their own words and the language they find comfortable (Qu & Dumay, 2011). Thirdly, semi-structured interviews can provide more personalized interaction between the research and participants and result in more personal responses (McDonough & McDonough, 1997, as cited in Xerri, 2018). Further, semi-structured interviews enable researcher

to seek clarity from participants if the interview responses appear incomplete, off-topic, vague, and insufficient (Mackey & Gass, 2015, as cited in Xerri, 2018). Finally, semi-structured interviews give the researcher the opportunity to compare interview data across subjects that they get from interviewees (Bogdan & Biklen, 2003).

In terms of interview scripting, I used Patton's (1990, as cited in Le Compte & Priessle, 1993) standardized open-ended interview method. This type of interview adheres to a strict script and does not allowing any flexibility regarding the wording or ordering of questions to reduce biases when several interviews are involved, nevertheless, the responses provided by participants are open-ended (Horn, n.d.). It is a suitable method to use if time is limited and the researcher is less experienced (Horn, n.d.).

In the following step, I focused on the questions I asked the teachers in the semi-structured interview. I conformed to Le Compte and Preissle's (1993, as cited in Tite, 2010d) steps: content, scripting and ordering questions. Firstly, regarding the content of the interview questions, I covered the main issues of teacher training, for example, the importance and necessity of teacher training to teach Indigenous textbooks in the Indigenous language. Secondly, I presented my questions as clearly and meaningfully as I could since they were all in the Bangla language. Although Indigenous people were capable of speaking Bangla, they preferred to speak their native languages. Therefore, my questions were simple and easy to answer. For example, How do you feel about teaching Indigenous textbooks without training? Have you thought training would increase your teaching efficiency? Would you explain that? Then, regarding ordering questions logically, for the inauguration of the interview, I followed Bogdan and Biklen's (2003) sequencing. Most interviews start with small talk to develop a rapport; I started the conversation with the school atmosphere in the hilly green areas, beautiful views from the

school etc. Since I was unfamiliar with the Indigenous community, I found it beneficial.

According to Bogdan and Biklen (2003), "in situations where you and the subject are strangers, you have to break the ice" (p. 95). Subsequently, I told them about the purpose of my interview and the confidentiality of the discussion, as well as taking notes and recording the conversation (Qu & Dumay, 2011). I was always alerted to avoid questions that negatively influence the discourse. Afterwards, I relied on Kvale's (1996, as cited in Qu & Dumay, 2011, p. 249) typography of questions to make questions in relation to my research topic (See Appendix A). Interviewers need to use and reflect on the typology of questions to improve their interviewing skills (Qu & Dumay, 2011). According to Kvale (1996), in terms of the typography of questions, it is necessary to provide interviewees with a context for the interview before and a debriefing afterwards. The interview briefing must clarify the circumstances for the interviewee, succinctly explain the interview's purpose, and inquire if there are any inquiries before commencing the interview. Additionally, he advises that it would be preferable to provide further elaboration on the study after the interview.

Since phenomenological research involved in-depth interviews (McCracken, 1988, as cited in Creswell, 1998), each interview lasted approximately one hour (Plokinghorne, 1988, as cited in Creswell, 1998). It took me 14 hours to interview 14 teachers. I completed all the interviews within two months. I conducted interviews online using Facebook Messenger, Zoom, or Imo applications, depending on the preference of the interviewee. Throughout the interview, I adhered to the predetermined questions and concluded the session within the allocated time (Creswell, 1998). Additionally, I demonstrated respect towards the participants by being polite and only asking a few questions. Most importantly, I was an attentive listener rather than frequently speaking during the interview.

I conducted secondary data collection in two steps. Firstly, I diligently searched government documents, policies, journal articles, time records, and newspaper articles (Tite, 2010f) that aligned with my research topic and research questions from 2000 to 2022. Secondly, I consulted my supervisors to find out if I needed to review other research settings such as journals, time records, and other relevant documents (Tite, 2010f).

3.3 Recording of Data

As data management and analysis are closely related (Berg, 2001), I used *ATLAS.ti* software to simultaneously record, organize, and analyze primary and secondary data.

3.3.1 Recording of Primary Data

I used voice-recording software and an interview protocol to record data from the semistructured interviews of 14 Indigenous government primary school teachers. The interview setting was kept as free of background noise and interruptions as possible (Groenewald, 2004).

3.3.2 Voice-Recording Software

Although some researchers take extensive field notes to record the statements on the research topic after the interview, I recorded the one-hour-long discussion using voice-record software on my cell phone and laptop as "long interviews are difficult to capture completely" (Bogdan & Biklen, 2003, p. 121) and it is challenging to write everything down, so having the recording to refer back to allowed me to re-listen to the interview and transcribe the required information later on without interrupting the interview process. Digital recorders also protect files from deterioration over time, and they facilitate effortless backup storage to guarantee recorded data integrity. (Tessier, 2012). The employment of software created for digital audio files streamlines the procedure of efficiently navigating interviews to locate a specific excerpt. Bogdan and Biklen (2003) suggest that when an interview is the principal technique of the study, it is

better to record it on a tape recorder. I used a voice recording application on my device as an alternative to a tape recorder.

3.3.3 Interview Protocols

The interview protocol provides guidelines to the interviewer for taking notes and organizing thoughts during a conversation (Creswell, 1998). I used the sample interview protocol (see Appendix B) provided by Creswell (1998). I revised the questions based on my research topic (see Appendix B).

3.3.4 Recording of Secondary Data

I categorized all secondary sources as field notes, journal articles, government documents, newspaper articles, publications from Bangladesh and other countries, Indigenous organizations, etc. Field notes helped me during the interview "because the human mind tends to forget quickly, field notes by the researcher are crucial in qualitative research to retain data gathered" (Lofland & Lofland, 1999, as cited in Groenewald, 2004, p. 48). Here *ATLAS.ti* software assisted me in recording data because a good storage system helps in storing vast amounts of data systematically, retrieving data efficiently, and analyzing data (Berg, 2001).

3.4 Data Analysis

I did data analysis and interpretation with my software. Data analysis involves systematically searching and arranging transcripts, field notes, and other materials to produce concrete and transparent findings (Bogdan & Biklen, 2003). According to Bogdan and Biklen, data analysis involves organizing, managing, coding, combining different types of data together, and arranging them according to different patterns.

On the other hand, data interpretation contributes to the development of ideas about the findings by relating them to literature, concerns, and concepts (Bogdan & Biklen, 2003, p. 147). According to Bogdan and Biklen's guidance, since findings and ideas that emerge from

discoveries are interconnected, I divided my data analysis into two phases: first, analysis and interpretation during data collection; second, analysis and interpretation after data collection.

Since I conducted a phenomenological study, I clustered statements into meanings and themes (Tite, 2010d). The positive side is that it kept me away from my personal prejudices (Tite, 2010d) about teacher training and teachers' efficacy in other parts of Bangladesh. I am not an Indigenous person and have visited the remote Chittagong Hill Tracts (CHT) only as a tourist. My own experience working as a teacher in the capital Dhaka, where teachers avail more facilities than in other parts of the country, may bias my perspective on teacher training.

3.4.1 Analysis and Interpretation During Data Collection

I started my data analysis on the first day of conducting a less formal semi-structured interview. Since I had some pre-arranged questions connected with my phenomenological study, after beginning the interview, I thought about which questions were relevant to my research and which ones I would have to reformulate to direct my work. Following the completion of one interview, I reviewed the interview notes and transcripts. If I received any new ideas or information I needed to know for my data analysis, I focused on it in the following interview. My speculations about how things fit together with my own research questions were based on what I wrote in the interview protocol. They were also based on what I gathered from the interview scripts and even what interviewees said during the interview. This was the first step of data analysis that influenced my thoughts and feelings about teaching and training Indigenous teachers. It also helped me organize the collected data from my interviews into various themes and patterns, avoiding my preconceptions.

I reviewed interview protocols and transcriptions after every two interviews. I wrote a one- or two-page summary based on what I learned and understood from the interviews.

Throughout the interview process, I continued my memo-writing periodically by connecting my

observations, interviewees' comments, and opinions into short summaries. These informal memos served as my analytical thinking pieces, helping me with my formal analysis. When I came across any important information in my notes that required further review, I consulted with some Indigenous experts who work with Bangladeshi Indigenous communities. In Spring 2022, I spoke with them regarding my grassroots research project.

I continued to read relevant literature throughout all phases of the data collection. The literature and data collection process exposed me to issues, themes, and categories that are relevant to my ideas regarding the topic. These ongoing critical and analytical thinking skills kept me alert and less dependent on past literature. Having less reliance on the literature has allowed me to focus on other regions of the world and their thoughts and actions regarding training Indigenous teachers to teach their languages and relate them to my research interests. If required, I used the ATLAS.ti software and my interview protocol for generating graphics, charts, diagrams, flowcharts, or doodles based on the necessity to make my formal analysis more resourceful (Bogdan & Biklen, 1998, as cited in Tite, 2010c). I, therefore, developed my ideas deliberately by doing different works at the same time. Before I began writing, as a novice researcher, I attempted to ensure that whatever I would write I would keep my writing my topic. I supported my ideas with logical reasoning and evidence from a wide range of sources, including journal articles, books, government and non-government reports, newspaper articles, and more. I believed that if I could successfully keep my writing within my topic and connect my ideas with logic and evidence, my whole analysis would be credible. As a result, I followed Berg's (2004, cited in Tite, 2010c) formal steps to ensure that my analysis remained on topic; these steps include: first, I asked a specific set of questions that were related to my study and research questions; second, I began with broad ideas and narrowed them down as time progressed; third, I

frequently interrupted codes as they generated new ideas; and fourth, I did not forcefully assume data that was not relevant to traditional variables.

Since I had a considerable amount of data from different sources, I used my software to develop a coding system to organize and cross-reference my data. According to data types, I arranged them as follows: journal articles, newspaper articles (domestic), newspaper articles (international), interview scripts, government policy documents, Indigenous teacher training in different countries, and theories on Indigenous teacher training. I arranged them chronologically (see Appendix C).

I followed Tite's strategy (2010c) during data analysis. This entailed keeping sufficient empty spaces in the notebook so that after reading and re-reading I could add notes. Similarly, during transcribing, I followed double-space in a 40-stroke line format. I will use *The Ethnograph* based on the recommendation of Tite (2010c), which is available for Memorial University students for transcribing interviews. The software made my work smooth, but I used my own insight when I read and re-read my data, keeping it connected with my conceptual framework and research questions. In addition, I kept a logbook to record who was interviewed, at what time, for how long, and on what date (Tite, 2010c).

3.4.2 Analysis and Interpretation After Data Collection

The following steps were followed during this phase. First, I followed Marshall and Rossman's (2006) idea of reading more and more to get familiar with the collected data to help me identify different themes (as cited in Tite, 2010b). In addition, I listen to the audio recordings of each interview repeatedly to become familiar with the interviewee's words (Holloway,1997; Hycner,1999, as cited in Groenewald, 2004). Once the data was categorized and themes were generated, I summarized the data, emphasizing the main themes expressed by the participants and the primary characteristics of the collected materials (Tite, 2010b). As a next step, I theorized

about the data by reading it and looking for significant issues. For example, if I saw widespread teacher training, Indigenous education, and policies in the data, I categorized them accordingly. In the following process, I linked these units to develop various explanations. Aside from the ideas I came up with, I also retested the data to ascertain the validity of these ideas. Additionally, if I made any general statements concerning the training of Indigenous teachers, I developed a typology so that I could refer to the data to determine whether my statements were accurate or whether they needed to be modified.

Since I relied on themes, categories, and typologies for data analysis, I coded the data to simplify the work. Coding is widely used in qualitative research and is an integral part of the analytical process (Elliott, 2018). It enables researchers to deconstruct their data and transform it into something novel. Coding encompasses the analysis of qualitative text data by breaking them down to uncover their significance and then reassembling the data in a meaningful way (Creswell, 2013). Codes usually contain some keywords (Tite, 2010a). Creswell recommends encoding all of the textual data, regardless of size, into approximately 30 to 50 codes. Following that, he suggests identifying redundant and overlapping codes, aiming to minimize their quantity to around 20 codes. As a result, he condenses these 20 codes into around five to seven overarching themes that function as the main headings in the findings section of my qualitative report (Creswell, 2013). According to Bogdan and Biklen (1998, as cited in Tite, 2010a), qualitative data coding involves families of codes; I utilized only two to avoid overlapping. I applied setting/context codes and perspectives held by subject codes as I worked with Indigenous teachers. I used semi-structured interviews and other documents to learn their ideas about the necessity of teacher training. For instance, contest codes deal with information collected from interviews, articles, etc. On the other hand, *subject codes* indicate perspectives on specific aspects (Tite, 2010a). The most significant thing is that once I established all codes for one semistructured interview, I applied them to the other 14 semi-structured interviews since I interviewed a total of 14 government primary school Indigenous teachers.

As I analyzed and coded using software and notebooks, I was able to understand what was going on in the situation I was working on (Tite, 2010a). This deep thinking assisted me in developing more concrete interpretations. Since profound interpretations, data analysis and coding took place simultaneously, I looked at the data repeatedly, intending to come up with alternative explanations.

3.5 Interpretative Style in a Phenomenological Study

As a phenomenologist, my objective was to find out how Indigenous teachers experience teaching Indigenous primary-level students' textbooks without training and to understand their perspectives on the importance of training. I used the interview as the primary data collection strategy, I transcribed the interviews, organized them, and applied the analytical strategies to reveal and describe my research findings appropriately. The following steps of analysis were used for a phenomenological approach that Creswell developed (1998, as cited in Tite, 2010e).

3.5.1 Description

I started by elaborating on my teaching experience and how teacher training influenced my teaching career. This starting point led me to consider the teaching style of Indigenous teachers, who use textbooks written in their languages without sufficient government guidelines or training.

3.5.2 Horizontalization of the Data

When conducting interviews, I identified statements related to teacher training and their ideas and experiences related to teacher training. I treated all opinions equally, keeping my prejudices out of consideration. My next step was to list significant statements, avoiding

unnecessary repetitions. Some ideas were interrelated, but there was no repetition of the same information the other way around.

3.5.3 Textual Description

I then organized the interview statements into meaning units, which were used to write a rough description of the experience. Since the qualitative data was collected from Indigenous teachers, a lot of verbatim data was used from the interview to give the flavour of the original data (Cohen et al., 2018).

3.5.4 Description of the Essence of the Experience

I wrote about Indigenous teacher training, covering all the significant statements and issues raised during the semi-structured interviews.

3.6 Construction of Composites

All four steps mentioned above were repeated for each interview. Then, a composite was written providing a thick description of Indigenous teacher training to teach books written in their language at the primary level, their schools, and their facilities to teach in the remote hilly corner of their country, and their emergency needs etc. This approach enabled the reader to gain a deeper understanding of Indigenous teacher training and other perspectives relevant to teaching and training.

3.7 Trustworthiness

Triangulation was used to ensure trustworthiness in the collection of data. According to Cohen et al. (2018), triangulation increases data accuracy, enhances data reliability, and reduces research biases. To ensure the study's credibility, I collected primary data through semi-structured interviews and used a variety of secondary data sources to avoid bias in the research.

I adopted a convenience sampling strategy for data collection. If someone utilizes other sampling techniques, the results may vary. I used *Setting/Context Codes* and *Perspectives Held*

by Subjects Codes systems for coding. Similarly, I applied the "TribalCrit" theoretical framework for critiquing existing approaches to teacher education focusing on Indigenous Peoples (Kitchen & Hodson, 2013). If someone uses other coding systems and frameworks, the same results might not emerge. Therefore, it is not transferable to different settings.

For data management and analysis, I used the software *ATLAS.ti* to keep records organized and analyze both primary and secondary data as accurately as possible. It helped me notice important information and explain all collected data during data analysis.

Since I did a phenomenological study, I grouped statements into meanings and themes (Tite, 2010c), which helped me ensure my study was free from biases. I applied different coding systems and software to record interviews, transcribe them through software, and show interviewees the transcripts to keep them authentic. I used various strategies to keep data interpretation intact and away from partiality and personal motivations.

The study's credibility was enhanced by using data collection, analysis, and interpretation systems associated with phenomenological studies. Other researchers may be able to use the results of this study in the future to conduct research on the same topic. However, it is essential to note that this study does not guarantee that its findings can be applied to other contexts where Indigenous people live in Bangladesh or anywhere else.

Meanwhile, I verified the identity of Indigenous teachers by contacting a teacher trainer at the National Academy for Education Management (NAEM) in Bangladesh, an Indigenous government primary school teacher from the Chakma tribe, a Chakma public university student from Khagrachhari district, and a Bangladeshi Indigenous student from Memorial University.

Further, if needed, I contacted various Indigenous associations in Bangladesh (for example, Bangladesh Indigenous People Forum, Achik Michik Society, Kapaeeng Foundation, Jatiya

Adivasi Parishad) as well as Bangladeshi government institutes (for example, Directorates of Primary Education) to verify the identity of Indigenous primary school teachers who live and work in Khagrachhari district of Bangladesh.

We can adapt this study for three districts of the CHT region as they are hilly areas, and Indigenous people live in that region. Their economic and cultural backgrounds are almost identical. It may only be used for research focusing on the training of Indigenous teachers rather than on the learning and teaching of students. Since the 14 participants were teachers employed at schools located in the same region, I cannot guarantee that the same results would be obtained in other areas of CHT.

3.8 Ethical Considerations

There was no foreseen risk associated with this research. The individuals who participated in the semi-structured interview did not face any harm during or after the interview about their life security or losing their jobs. All participants received the study's final report via email, WhatsApp, or any other social media app according to their preferences. Prior to the interview, participants were explicitly informed that their answers would not be evaluated based on correctness or assigned any marks. Primary school teachers participating in the interview were allowed to withdraw their participation at any time. If they felt they needed to change their responses, they could do so at any time.

All efforts were made to keep interview responses and audio and video records private and confidential. Audio and video records, as well as hardcopy of interview transcripts, were kept in a locked filing cabinet in the Centre for Career Development. All data, such as records and interviews, were stored on Google Drive, which was password protected; only the research team

had access to it. The information analyzed by *ATLAS.ti* software was kept confidential as well. All data would be destroyed within a year of research accomplishment.

Once the Memorial University Ethics Committee granted ethics approval, the researcher started collecting, coding, and analyzing data.

3.9 Researcher's Stance

I undertook this research because I saw few Indigenous students in my education institutions while I worked in Bangladesh as a teacher and studied at primary, secondary and tertiary levels. Additionally, the lifestyle, culture, and history of Bangladeshi Indigenous people have always been of interest to me. I wanted the opportunity to learn about Indigenous languages, culture, and the education systems within the Chittagong Hill Tracts. When I read that the Ministry of Education of Bangladesh had already published pre-primary-level textbooks in five different languages in 2017, and the teachers were teaching using these books for the time being without any properly written guidelines, I became interested in how the teachers felt about using these books without sufficient training. I wanted to know whether the training they had received so far helped them to teach these books efficiently. So, I wanted to do a phenomenological study on the effectiveness of Indigenous government primary-level teachers in teaching Indigenous language textbooks in the remotest area of Bangladesh.

I have seen that in Brazil, there are some specific courses for training Indigenous teachers to teach in rural schools (Gomes et al., 2020). In Canada, they have Indigenous teacher training courses (Gomes et al., 2020). New Zealand uses Māori language to prepare teachers to teach Māori children (Hohepa & Hawera, 2019). Several remarkable initiatives have been taken in Australia and the United States to improve the effectiveness of teachers who teach their languages. In Bangladesh, the government has taken some positive steps, but the implementation

process has been slow despite Indigenous people working to secure their education rights for many years.

When I started thinking about this qualitative study, I knew that if I wanted to know about Indigenous teachers' training from Indigenous teachers' perspectives, I had to put my personal biases aside while selecting literature for reviewing, a data collection system, and a data analysis and interpretation approach. I, therefore, kept it until the end of the study. I always remembered the speech of Scott and Usher (1996) that "all meaning-making and sense-seeking is interpretive, there is no objective knowledge-in-itself independent of the context of knowing/researching" (as cited in Tite, 2010g). My intention was not just to provide an interpretation of what teacher training was; I wanted to know it from the perspectives of Indigenous teachers as they were culturally and contextually different from other areas of Bangladesh. The reason for this is that thinking about teacher training may vary from one context to another and from one culture to another.

Regardless of my attempts to limit the influence of my personal prejudices, I was unable to stay away from my preconceptions about teacher training and my personal experiences of attending any training sessions. Phenomenologists believe that the researcher cannot be detached from their presuppositions and should not pretend to be so (Hammersley, 2000, as cited in Groenewald, 2004). This prior knowledge about teacher training made me open-minded and more curious to know about this from Indigenous teachers' perspectives, which changed or modified my thinking about teacher training and came up with new interpretations and analyses concerning this issue. Even these pre-understandings inspired me to learn something different from Indigenous teachers and increase my knowledge about teacher training.

As my study was phenomenological and involved semi-structured interviews with 14 teachers, I gained various perspectives regarding teacher training based on their professional experiences and personal reflections. These 14 teachers were of different ages and came from multiple schools, thus providing a multidimensional view of the teacher training program.

I believed that to make my study successful, I needed to know about the conversation style of Chakma Indigenous people. I needed it as I was a non-Indigenous researcher. Thus, I talked to some Chakma people about the Chakma community's conversation style.

This prior knowledge about the Chakma tribe's conversation style helped me positively during semi-structured interviews as I had to collect information about Indigenous teachers' experiences of teaching the Indigenous Chakma language.

I firmly believed that to make my study successful, I needed to be patient, polite, trustworthy, and friendly towards Indigenous teachers, which would help me obtain accurate information. I spent more time allowing them to understand my research goals and what information I wanted to collect from them about teacher training. I always gave them freedom, inspired them, and gave them more time to talk freely about teacher training, their education, and teaching contexts, as Indigenous people in Bangladesh were traditionally quiet. I told them what I would do with their data after the study and how to safeguard their information and assured them that their personal information would be kept private from others except the research team. The study did not begin until approval was granted by Memorial University's ethics committee.

For my study, I used computer-assisted data management and analysis software, a laptop, and a cell phone to conduct video interviews. I also used papers, university library resources, and translation software for my research. I was able to complete the study with these resources. I talked to two Chakma teachers about school officials' permission to interview teachers.

Whenever I had to submit a formal application to the school authority, I did so before conducting

an interview. Individuals who provided information were contacted using different methods.

To ensure the success of the study, I provided participants with detailed information regarding any topic.

3.10 Limitations

This study has some limitations. First, since Indigenous peoples in Bangladesh live in the border regions of the northwest, central north, northeast, south and southeast parts of the country (Dhamai, 2014), I covered only the southeast area, Chittagong Hill Tracts (CHT), of the country for data collection. I selected 14 government primary school teachers for this study; therefore, the generalizability of the findings was confined to the Khagrachhari region of Bangladesh. The participants' responses might also negatively impact my research as I conducted the study as a non-Indigenous researcher. Since CHT is a remote military-controlled hilly area in Bangladesh, I had to work on just a few schools, so the data was restricted to those schools. Since school and teachers' numbers were limited, I did not randomly select participants. Research data was limited to those interested in participating in the interview. I intentionally excluded school administrators and teacher trainers from the study so that the research could be conducted from the perspective of Indigenous teachers.

Chapter 4: Results

This study aimed to assess the proficiency of Indigenous teachers in teaching in Indigenous languages in Bangladesh, guided by the subsequent research questions:

- 1. What initiatives can the government and other concerned authorities take to train Indigenous teachers to teach textbooks written in their languages?
- 2. To what extent do trained Indigenous teachers contribute to student achievement and retention?

The 14 interviewees are from the Chakma community who hail from the Khagrachhari district, which is one of the Chittagong Hill Tracts (CHTs) districts in Bangladesh. Out of the 14 interview participants, there were seven males and seven females. The Chittagong Hill Tracts (CHTs) is a hilly area in Bangladesh. It is located in the southeastern part of the country and shares borders with Myanmar, Two Indian states, and the Chittagong district of Bangladesh (Chittagong Hill Tracts, 2024). Khagrachari is neighbored by Tripura state of India to the north and west, Rangamati district to the east, and Chittagong District to the southwest (Khagrachhari District, 2024). Participants pseudonyms names are: Ane, Prod, Jyo, Vaygo, Bino, Shis, Tuhi, Anti, Seli, Shuvo, Pepe, Mchak, Shad and Shan. Male participants are Ane, Prod, Vaygo, Shis, Tuhi, Mchak and Shad. Female participants are Anti, Jyo, Bino, Seli, Shuvo, Pepe and Shan. In interviews, participants mentioned that once they were chosen as public primary school teachers, they underwent an 18-month training program called the Diploma in Primary Education (DPE) before beginning their careers as primary school teachers. This diploma course is a requirement for all primary school teachers employed by the government in Bangladesh. The participants in the interview are public primary school teachers with varying levels of teaching experience, ranging from five to thirty-five years.

While all of them are involved in teaching the Chakma language, only one out of the 14 individuals did not receive Mother Tongue-Based Multilingual Education (MTB-MLE) training, while the rest did. Everyone mentioned that the district and sub-district administration coordinated training sessions with the support of the Directorate of Primary Education (DPE) and the Ministry of Education.

All the participants indicated they provide instruction in Chakma language only for Chakma language learning courses, ranging from pre-primary to grade three, using Chakma textbooks published by the National Curriculum and Textbook Board (NCTB). These teachers are also responsible for teaching the subjects of Bangla, English, General Mathematics, Introduction to Environment, Social Science, Music, Physical Education, Arts and Crafts, Islam and Moral Education, Hinduism and Moral Education, Christianity and Moral Education, and Buddhism and Moral Education (Directorate of Primary Education, 2017). All subjects, except English, are instructed in Bangla. Teachers use Chakma language books to acquaint children with the Chakma alphabet, including Ajapath (Vowels), Arjabipath (Consonants), Lebang and Majra (these are vowel sounds that are added with consonant sounds), word formation, reading texts, and the writing system.

The researchers carried out interviews in Bangla, using 23 open-ended questions, and then translated them into English to create 14 interview transcripts. Through the analysis of the interview transcripts, I identified seven interconnected primary themes along with various subthemes. I discussed the relationships between and across themes after describing the primary themes.

4.1 Theme 1: Indigenous Language Teacher Training

This theme included several categories, including the level of training they received and the adequacy of training programs for teaching Indigenous students. This theme also examined the duration and gaps in training sessions. Under this theme, I also discussed the significance and advantages of training and the essentiality of recruiting qualified educators because teacher training is connected to teachers' effectiveness in teaching Indigenous languages.

4.1.1 Training Information

All interviewees from the Chakma Indigenous community, except for one participant, had received training specifically in teaching the Chakma language. They participated in two to three training programs, totaling three weeks, specifically dedicated to teaching their Indigenous language. Prod informed us that he had undergone training in MLE (Multilingual Education) specifically for the purpose of teaching the Chakma language to primary school students. Jyo made a similar comment, highlighting her training in teaching Indigenous language. Vaygo clarified that the Zilla Parishad (District Council) solely offered training in the Chakma language. Bino stated that she successfully completed three training programs for the Chakma language. Shis indicated, "I have received training in teaching the Chakma language, and I firmly believe that this training equips me to educate students effectively." The sole untrained teacher Shad responsible for teaching the Chakma language on a temporary basis explained that he did so because of a shortage of teachers at the school to cover all subjects.

4.1.2 Views About Gained Training

All participants have observed disparities in their teaching experiences before and after training. They held the belief that their proficiency in the Indigenous language was lower prior to

undergoing training. The training conducted in their mother tongue aids teacher in cultivating their fondness for their native language, thereby intensifying their interest in mastering all four language skills (listening, speaking, reading and writing) of the Indigenous language. Ultimately, it aided them in developing into conscientious, well-informed, and skilled educators, thereby enhancing students' language proficiency. This enhancement of language skills has equipped them to pass on Indigenous knowledge from one generation to another, ensuring the provision of quality education for children. Moreover, it holds immense importance in fostering students' competence in Indigenous languages, playing a dual role in directly and indirectly supporting the conservation and protection of Indigenous languages, especially in written form. A clear understanding can be obtained by analyzing the overt expressions of certain participants. Seli emphasized the significance of pre-training and post-training in enhancing proficiency in Indigenous language teaching. She stated, "with no training, I wouldn't know how to teach Chakma language, but through training, I gain a basic understanding of how to teach in the Chakma language." Tuhi expressed that the training allowed him to attain literacy in her native language. He shared:

It's funny how I did not know of Chakma language literacy until I underwent training. Since I didn't have knowledge in reading the Chakma language...how can I effectively teach the students? Now, with the completion of my 14- and 7-day trainings, I can read, write, and almost confidently teach students in Chakma.

Anti mentioned that training aided her in effectively planning her lessons.

We receive training so that we can instruct students satisfactorily, and students can learn efficiently. This training is necessary for us to plan the lesson appropriately. The training

in the Chakma language equipped me with the knowledge of what I would teach students. I have also gained mastery in teaching methodologies, student comprehension strategies, curriculum design, and self-preparation in the subject area.

Jyo emphasized the importance of providing additional training for teachers to effectively teach the Chakma language, considering their limited familiarity with its writing and reading skills. She shared:

I should strive to gain greater expertise in effectively instructing Chakma language textbooks. Considering the recent development of reading and writing competencies in the Chakma language among educators, training becomes irreplaceable in the process of language acquisition. It would be beneficial for me to undergo additional training to gain these skills. Moreover, individuals who join as new teachers for teaching the Chakma language should initiate their journey with training prior to conducting language lessons in the classroom.

Joy highlighted the role of training in raising awareness about the importance of preserving and protecting Indigenous languages and emphasized the need to prioritize Indigenous language learning. She shared:

The Ministry of Education did not initially give us any training to effectively teach the Chakma textbooks they provided. That is why we did not give that much importance to teaching those books. Honestly, I paid little attention to Chakma language teaching until I started training. Through my training in 2018, 2022, and 2023, I came to appreciate the significance of training and the worth of my language. I believe my proficiency in the Chakma language is improving every day due to my training. I also realized that

maintaining and preserving the written form requires adequate and extended trained teachers to teach students competently.

Jyo and Shuvo also benefited from the training, as they came to recognize the significance of their Native language. While undergoing the training, they could grasp the written skills of their language, an area of study they had never pursued. Jyo shared:

We can confirm that we did not know of the written form of the Chakma language prior to the training. We lacked any sense of affinity or attachment to our native language, or it simply did not function effectively. Consequently, a substantial disparity exists between pre-training and post-training encounters. Training gave me insights on how to sustain and protect my language. I express my gratitude to the honorable Prime Minister for organizing the training and incorporating our language books into the curriculum.

Shuvo also expressed the same perspective that training allowed teachers to grasp the significance of Indigenous languages and express their emotions to students so that students can understand the importance of the language they are learning. He conveyed:

Through my training, I have gained insights into the Chakma language and recognized its crucial importance. Training has significantly enhanced my abilities in the Chakma language, resulting in a multitude of valuable experiences. This training not only equipped me with knowledge about the Chakma language, but it also proved to be immensely beneficial for students as they learned and understood the Chakma language. They gradually realize the importance of their language to some extent.

The language training enabled Jyo to focus on Indigenous language instruction and proficiently address her students' inquiries:

I only started paying attention to teaching the Chakma language after I received training, despite having textbooks. Let me provide an example: one day, a third-grade student posed a question to me out of genuine curiosity. I paid scant attention to his query and displayed apathy towards her question. Upon receiving training, I effortlessly addressed the occasional lighthearted inquiries pertaining to the Chakma language made by students. Since I recognize the significance of my language, I treat their questions seriously and strive to provide them with satisfactory answers.

Shuvo stated that this training facilitated the acquisition of new skills in the Indigenous Chakma language and successfully addressed the challenges of intergenerational knowledge transfer. Furthermore, the program has also contributed to enhancing the proficiency of teachers in Indigenous languages and deepening their knowledge of these languages. This is due to the fact that Indigenous languages are solely taught by Indigenous primary school teachers in Bangladesh. He shared:

My training in the Chakma language significantly enhanced my knowledge and skills. After 15 days of training and practice, I have reached a moderate level of reading and writing in Chakma. It is interesting to note that my grandfather was proficient in both reading and writing in the Chakma language, while my father only had speaking skills. Learning and instructing the Chakma language to school students is a significant milestone for me. According to my father, if I knew how to read and write the Chakma language, I could teach it to you effectively. I believe that the absence of awareness and education created significant barriers.

Through the training, Pepe came to the realization that she was deprived of the opportunity to learn her Indigenous mother tongue in school, while children nowadays have that privilege. She clarified:

Training was necessary for me because I had no proficiency in reading or writing the Chakma language before the training. Through training, I gained knowledge and a deeper understanding of my Native language. Now that I have undergone training, I can impart knowledge of the Chakma language to children. I felt a sense of deprivation because we were not given the opportunity to learn in our mother tongue during my primary school years. Luckily, children now have the chance to avail this opportunity.

Mchak emphasized the importance of training for teaching Indigenous languages effectively. Training helped them learn the language and become efficient teachers. Efficient teachers were able to help student to improve their Indigenous language proficiency. He shared:

As part of our training, we are provided with strategies to expedite the learning process of the Chakma alphabet and words, enabling students to comprehend the meanings easily. Training is advantageous as it enables us to effectively teach students the Chakma language, thereby enhancing their proficiency. In order to provide students with high-quality knowledge, it is essential that we receive additional training on effective step-by-step methods for efficiently conducting classes. This training is necessary because a well-trained teacher is able to guide students in a simple and systematic manner, while also delivering classes in a pre-planned and organized way.

4.1.3 Adequacy of Training

Every teacher reported that insufficient training resulted in an incomplete mastery of the Chakma language. They asserted their need for more assistance to achieve fluency in reading and writing Chakma. Anti advocated for additional training for teachers in Indigenous languages. Prod shared "I teach students using Chakma textbooks, but despite my use of these materials written in the Chakma language, I feel that I have not yet fully mastered the language." Joyoti expressed her intention to undergo additional training to enhance her proficiency in teaching Chakma language textbooks. Bino also articulated her desire for continued support in becoming proficient in reading and writing Chakma. She said "It is imperative for me to participate in a comprehensive training program in order to attain a high level of proficiency in the Chakma language, allowing me to effectively instruct others in that language."

Shuvo and Salina emphasize the importance of continuous teacher training in enabling teachers to become fluent in a new language fluently. Here is the statement made by Shuvo:

We will undergo a 15-day training program to learn the Chakma language, followed by a seven-day refresher course after almost two years. The training period of either 15 or seven days is not enough for us as we are beginners in learning the Chakma language. We forget if we do not practice regularly and train repeatedly. These training programs teach us to recognize letters, words, sentence structures, etc. We are also learning how to teach these children and what approaches we should follow to help them understand the Chakma language.

Salina stated "My ability to comprehend and read the Chakma language is limited. However, if I could undergo an extended training period of a month or more, it would have improved my ability to comprehend and read the Chakma language."

Shad occasionally provides instruction for a Chakma language course at his school despite still needing formal training. He shared the following about training:

Enhancing our proficiency in the Chakma language through additional training would prove advantageous, as it often involves the acquisition of fresh insights. Let me give you an example - I can comprehend 90% of the Chakma language; it is my assumption.

Nonetheless, if I undergo training, I can acquire new knowledge and pinpoint my areas of weakness. In my view, offering extended training would be advantageous for everyone engaged in teaching the Chakma language.

4.1.4 Length of Training Programs

The consensus among teachers is that continuous and long-term training is crucial for achieving fluency in the Chakma language. They offered short-term training, but teachers require more to improve their ability to learn their mother tongue as an entirely foreign language. While conversing with Jyo, she disclosed that her understanding of the Chakma language improved to some extent after completing three weeks of training sessions. She commented:

Our initial training in the Chakma language took place in 2018 for one week, subsidized by the Zilla Parishad (District Council). A seven-day training session later followed this in 2022. In 2023, a week-long training session lasted to refresh our language skills. These three training sessions have provided us with a limited comprehension of the Chakma language. I can now communicate in the Chakma language to some extent.

Bino stated, "The initial training session provided us with a basic grasp of the language. Our performance slightly improved after the second training session. During our third training, the instructor covered Ajapath, Arjabipath, Majra, and Lebang." Prod is certain that with six months or more of extensive training, he could effectively teach his students the Chakma language. Salina said, "My training comprised two sessions, totaling 14 days long. I require help with reading or comprehending the Chakma language. However, if I had trained for a month or twice more, I could have taught better."

4.1.5 Gaps Between Training Programs

The gap between training programs is long, and they are short sessions. Teachers learn the Indigenous language from scratch and immediately begin teaching it in the classroom from preprimary to grade three. Tuhi and Ane clarified that there is a long-time gap, at least a year, among all three short-term Indigenous language teacher training programs. Tuhi said, "I attended a 14-day training program in 2018 funded by Zilla Parishad (District Council) on Chakma language training. Two 7-day refresher training programs followed this training in 2022 and 2023. Overall, we received training three times."

Ane received training in teaching the Chakma language and participating in the initial two-week training in 2019. Afterward, he completed a one-week refresher training program in 2022. Between the two language training sessions, there was a three-year break where the interviewees should have had more exposure to reading and writing the Chakma Indigenous language.

4.1.6 New Teacher Recruitment and Training Process

Interview participants emphasized the need for comprehensive and ongoing training in the Chakma language for new teachers being recruited. This training will equip them to become effective teachers, enable them to deliver a higher quality education to children. Anti believes, "We need to assign particular teachers to teach the Chakma language in a specific way." In addition, Joyti emphasized that aspiring teachers of the Chakma language should commence their professional journey with training.

Vaygo stated that a proficient Indigenous language teacher would facilitate effective language learning:

We should hire a dedicated Indigenous teacher who exclusively teaches Chakma. The teacher will be well-versed in this language, making teaching easier. Dealing with many subjects simultaneously can be challenging as we teach the Chakma language and other subjects. If we appoint dedicated teachers to educate in the Chakma language, it will improve and make teaching more dynamic.

Shad proposed applying the same strategy used for ICT (Information and Communication Technology) course teachers to the Chakma language course for better results. He added recruiting Chakma language teachers exclusively, like in ICT subjects, would be beneficial for students.

Vaygo stressed the importance of a Chakma language teacher for the program's success. He shared:

We still need a designated Chakma language instructor. Despite this, some teachers multitask and teach this language alongside other subjects. If the government appoints teachers specifically for the Chakma language in the future, it will speed up the education program.

Having a dedicated teacher for the subject would lessen the workload for other non-native Chakma language teachers. Anti said, "Teaching Bangla, English, and Chakma language books simultaneously poses many challenges...The presence of qualified instructors and sustained training are essential for effectively teaching the Chakma language."

Bino and Sumaya expressed needing help retaining the Chakma language due to their lack of proficiency. They also find teaching Bangla, English, and Chakma simultaneously challenging, which adds to their workload. They would prefer a specific teacher who can teach the Chakma language. Bino commented, "The current issue revolves around students frequently finding it challenging to retain their fluency in Bangla while learning Chakma. Having separate instructors to teach this language would have made it much more accessible and improved the learning experience." Shad said, "Offering Chakma language classes and other courses creates challenges in managing multiple classes. The government must appoint a Chakma teacher who has received specialized training and focuses only on teaching the Chakma language."

Successful teaching of a new language depends on the allocated time spent on it.

Increasing the amount of time allocated for instruction leads to a higher success rate. As a result, the primary focus of the following theme is allocating time for teaching an Indigenous language in the classroom.

4.2. Theme 2: Teaching Time

According to the interviewees, despite their limited training and effectiveness, the authorities allocate less class time to teach the Indigenous language. Consequently, teaching effectiveness remains subpar, resulting in minimal student learning enhancements. Interview participants disclosed that students tend to forget what they have learned due to the reduced number of weekly classes. Moreover, Chakma is taught alongside Bangla and English to children, making it challenging to grasp all three languages. Bino states, "The Zilla Parishad (District Council) has instructed them to hold Chakma language classes twice weekly, specifically on Sundays and Tuesdays." Ane explained his students' discontent with studying Chakma as a distinct subject, manifested in the following ways:

We allocate just two days per week, Sunday and Tuesday, for Chakma language classes at the primary level. These classes run for a duration of 40 to 45 minutes. The children struggle to remember everything since they only have MLE classes twice a week and learn it like a new language.

Seli reciprocates by acknowledging that students require additional class time to learn the language. She shared, "The students could have learned the Chakma language more quickly if we had offered additional classes."

Shuvo said that children learn three languages simultaneously. As a result, it becomes hard for children to grasp a new language with only two weekly lectures. He conveyed his disappointment in the following manner:

Instructing the Chakma alphabet, word and sentence structure, and other language-related matters from pre-primary to third grade presents us with various difficulties requiring further attention. Children in the class struggle with learning three languages simultaneously—Bangla, English, and Chakma. The Chakma language is more challenging for them to comprehend than other languages because of the need for more frequent classes and practice sessions, which are only conducted twice a week.

Government institutions play a significant role in the success of Indigenous language teaching programs. This next theme centers on primary Indigenous language teachers' viewpoints on government decisions pertaining to Indigenous language teaching.

4.3. Theme 3: Opinions About Government Initiatives

Interviewees shared their views on government efforts to preserve Indigenous languages. They voiced their perspectives on the correlation between government Indigenous primary school teachers and education department officials. They also discussed the steps the government must take to implement Indigenous language education initiatives effectively. The responses from the participants were positive.

4.3.1. Government Primary Initiatives

Before obtaining textbooks and training in their Native language, most participants had no literacy skills in the Chakma language. Pepe, Shis, Shumaya, and Ane stated that the Zilla Parishad (District Council), Ministry of Education (MoE) and the Directorate of Primary Education (DPE) took steps to support the development of the Chakma language. As a result, they are now actively involved in teaching Chakma. The government gave Indigenous students

free textbooks and notebooks to practice writing Chakma characters. The current curriculum includes books for students from pre-primary to class III.

Regarding government initiatives, Shuvo shared: "It was only after we obtained books from the education office and underwent training that we became literate in the Chakma language." However, Shan had concerns and raised a question about the teacher module. She said, "Despite government initiatives to teach the Indigenous mother tongue via book publications, the absence of a written teacher module raises questions. The availability of written instructions would have enhanced teachers' role in fostering students' progress." Shan has requested the government to address the exploitation and deprivation of Indigenous people in hilly regions. She requested:

Indigenous communities such as the Chakma, Marma, Kheyag, Murong, and Bong tribes inhabit the hilly regions of Bangladesh and face many forms of exploitation and deprivation. I believe that in a democratic country like Bangladesh, the rights of Indigenous people should be protected, and they should not face any form of exploitation or deprivation. Thus, it is my opinion that the government should undertake an inquiry into these concerns.

4.3.2. Government Future Initiatives

Certain individuals proposed that the government implement a comprehensive training initiative to gain proficiency in the Chakma language. Additionally, it is imperative for the government to proactively safeguard the languages of other Indigenous communities, apart from the five languages already being taught in schools. The government can achieve this by

producing books and incorporating them into the curriculum, thus ensuring the perpetuation of language knowledge across generations.

Vaygo underscores the significance of future government initiatives to tackle the Indigenous language efficiency challenges experienced by teachers. He shared:

Mastering a new language poses a significant challenge. We must acquaint ourselves with the written form of the language despite it being our Native tongue. Initially, reading and writing were difficult. Considering our considerable obstacles, the government must facilitate extensive training and enact various educational programs in the Chakma language. Accordingly, mastering this language will be simplified.

Vaygo also voiced apprehension regarding safeguarding other Indigenous languages, emphasizing the crucial role the government should play in publishing books and teaching those languages. He shared:

The government deserves our thanks for publishing textbooks in five Indigenous languages and distributing them to various schools. However, many languages in the CHT region are in danger of disappearing. We must actively study, use, and pass on these languages to ensure their preservation and eventual recovery. Concerning this matter, I would like the government to release books progressively in additional Indigenous languages and incorporate their teaching in schools. From my perspective, the government needs to assume leadership in this matter. Therefore, by recording and introducing other Indigenous languages in schools, we can prevent them from becoming extinct.

Shan believes that the government should make policy decisions without unnecessary delay. He regrettably said, "If I held a position in policymaking, I would prioritize expediting the completion of these tasks."

4.3.3. Relation of Teachers with Government Authority

The interviewees unanimously expressed satisfaction with their relationships with coworkers, Ministry of Education, and Directorate of Primary Education officials. Anti stated, "The assistant teachers, head teachers, and officials from various education departments have developed a positive relationship and are willing to lend their support on various issues." Shad mentioned that the Upazilla (Sub-district) Education Officer and Assistant Upazilla (Sub-district) Education Officer often visit schools because of their cordial relationship.

According to Jyo, a strong and positive relationship exists between her fellow assistant teachers, the headmaster, and government officials. She sends monthly progress evaluations to the Zilla Parishad (district council) as part of evaluation process. Therefore, the district council knows both about teaching approach and the student's development. Mchak said, "The assistant teachers, headmaster, and government officials are deeply committed to teaching the Chakma language. The teachers are highly enthusiastic about teaching and actively encouraging the promotion of the Chakma language." Rupa emphasized that government officials have a solid determination to prioritize teaching the Chakma language.

Shuvo shared:

The Chakma community primarily dominates the area we reside in. A relatively harmonious relationship and coordination exists among the headteacher, assistant

teachers, and officials from different education departments. As a collective, we aim to effectively teach the Chakma language, provide adequate support and guidance, and sustain the Chakma language.

We can see that Indigenous teachers and government officials have good relations. The government needs to fulfill its commitments and provide logistical support to ensure the success of Indigenous language teaching initiatives. The following section explains the importance of logistics support in achieving a positive outcome.

4.4. Theme 4: Logistic Support

Participants tell about logistic support covering the number of teachers, classroom, written teaching manual, language expert teacher, and class duration.

4.4.1 Teaching Materials

The participants used familiar resources and contexts while instructing in Indigenous languages. Tuhi preferred using various materials and inquired about their definitions in the Chakma language. Shuvo explained, "In teaching children Chakma, we employ various techniques, explanations, and examples. We also use various materials like flip-flops to facilitate their learning of the Chakma language." Pradip incorporates storytelling into his lectures. Shan said:

I strive to teach based on my experience. When students need assistance in comprehending the Chakma language, I use hands-on teaching methods during class; this includes linking words with tangible objects such as birds, trees, flowers, and so on. I teach them how to read well through practical experiences.

Tuhi replied:

I often present different objects to them and provide their Bangla names. I then inquired about its name in the Chakma language. To give an example, in Bangla, "Khata" is used to refer to a notebook. During my classes, I often encourage students to share the Chakma term for it. I urge other students to learn the meaning of the answer if they can respond. I would explain it if they do not know the meaning.

Shad clarified that during his Chakma language classes, he consistently utilized examples from the Chakma culture instead of transitioning to a different culture. Drawing from his Chakma heritage, he integrates cultural references into his teaching, leading to enduring learning experiences. He mentioned, "the CHT hilly area is very remote. Some students do not even visit the district town, the Rangamati, or the Khagrachari area. If I talk to them about the train, they will need help understanding what a train is. They only know about trains based on descriptions, like how they operate and what the wheels look like, but they have never seen one in real life. They witnessed it either on TV or through pictures. So, they learn quickly and effectively when given examples from their area." Shad commented on how far his school is located.

My school is situated 150 miles from the Upazilla (Sub-district). It is near the river. If I start in the morning, I will arrive at 5 pm. Some Burmese boats are faster than local boats. If I choose that boat, reaching my school will take a whole day. Taking a boat to school is harder than walking. Even if you choose to walk, the journey will still take at least six hours.

4.4.2 Number of Teachers and Classrooms

The participants, living in the country's most secluded area, realized the requirement for extra educators. The educators teach Indigenous language as a separate subject alongside regular classes to address the shortage. Occasionally, work pressure may lead to the cancellation of Indigenous language classes. Ane explained, "We teach six primary school classes every day. These classes range from pre-primary to fifth grade. These remote, hilly areas are also experiencing a shortage of teachers. Some schools have only one or two teachers."

According to Ane, this teacher shortage worsens when teachers are on personal leave or away from school for official reasons. He said:

There are teacher shortages. For example, one day, the headteacher is absent, and only two out of three teachers are in the school. As a result, conducting lectures at all levels, ranging from pre-primary to level five (at primary school, pre-primary to grade 5 is taught in Bangladesh), becomes challenging. Sometimes, we face the dilemma of prioritizing regular subject classes or Chakma language classes due to a shortage of teachers.

Shad mentioned that Chakma language classes are occasionally cancelled because of this shortage. As per his statement, Chakma classes are available solely on Sundays and Tuesdays, owing to a scarcity of teachers and time limitations. If we did not have teacher shortages, we could offer classes daily. Bino emphasized the need for more teachers to ensure that education in Bangla, English, and Chakma is of the same standard. Bino shared:

We offer classes in Bangla, Chakma, and English. We need help in this case. In addition, a teacher cannot simultaneously teach Chakma, Bangla, and English. As a result, we face

many challenges and must work hard. We need to appoint more Chakma language teachers to teach Chakma students.

Shad claimed that educational institutions in hilly areas lack sufficient teaching staff.

There are between three and four teachers in schools in hilly areas, hence there is a need for more teachers. When a Chakma language teacher leaves the school or travels elsewhere for any reason, such as a job, business, family matter, or illness, the children cannot learn the language, or the school cannot find a substitute teacher. The Directorate of Primary Education can train at least two teachers to teach Indigenous languages in response to the demand for more educators. They can fulfill the role of backup teachers and alternate their teaching responsibilities.

Schools in the CHT area of Bangladesh require additional classrooms. Lack of classrooms prevents teachers from offering more Chakma classes, even if they are willing. According to Sumaya, "In my school, there are Muslim and Chakma students. When teaching the Chakma language, I attempt to instruct Chakma students separately. Teaching them separately in a separate room is challenging because there are not enough rooms available at school."

4.4.3 Written Teaching Manual

The participants stated that they had not received a teaching manual yet. They emphasized the significance of teaching manuals for teaching Indigenous languages. There are teaching manuals available for all subjects except for Indigenous language course. About this, Bino disclosed:

We already possess instructional guides for other subjects. Unfortunately, there is no teaching manual available for the Chakma language. A comprehensive teaching handbook

and specialized training could have significantly enhanced the teaching of the Chakma language. The manual and proper training will emphasize the importance of teaching the Chakma language through textbooks. If there is no adequate training and provision of manuals, the Chakma language education would not receive the level of seriousness that it truly deserves.

Shad also said they had not seen the teacher's manual for the Chakma language. He thought having a teacher's guide for the Chakma language would make teaching students more manageable and beneficial.

In an interview, Bino revealed she had been teaching the Chakma language for a considerable duration, with no manuals or extensive training. Rupa expressed her satisfaction but mentioned needing a curriculum or instruction manual for Chakma classes. Rupa said, "I believe that if I receive proper training to teach in Indigenous languages and have access to a teaching manual in the Chakma language, we can effectively support students in achieving success throughout their academic journey." Prod, Seli, and Jyo also believe that a teacher's guidebook for teaching in the Chakma language would enable them to instruct students more effectively and contribute to their success. Vaygo stated, "It would have been more convenient for us to take classes if we had Chakma language teacher's guides for each class published by NCTB (National Curriculum and Textbook Board)."

A few individuals desired teaching manuals similar to those used for other subjects. Shuvo said, "We have teacher's guides for other courses. However, we don't have a guidebook or module to teach Chakma textbooks." Vaygo confirmed they followed the training session guidelines to uphold the Indigenous education program.

Ane believes that teaching without manuals hinders their ability to teach.

The lack of a teaching manual hinders our ability to teach the Chakma language. The only resources we receive are textbooks. Occasionally, we gather and seek out books written in the Chakma language at the market. We borrow different ideas from those books and carry on teaching in the Chakma language.

Jyo said:

Manuals are available for every subject except the Chakma language. Instructional modules detail our approach to instruction, assessment, and monitoring the progress of students. Given the lack of a guidebook for Chakma-published books, we frequently rely on support to navigate and evaluate their progress. I urge the higher authorities to produce a manual for the Chakma language, providing clarity on the student evaluation process.

Shan taught the Chakma language at different levels: pre-primary, grade one, two, and three. Through this experience, she realized the need for a teaching manual. She requested the Ministry of Education to provide a Chakma teaching manual, similar to what they do for other subjects.

Manuals are necessary for structured instruction. Shis points out that without a teacher's manual, both the educational program and student instruction suffer from incompleteness and disorganization. Mchak shared: "To effectively teach any subject, a teacher module or teaching aid is essential for step-by-step instruction. We must introduce everything step by step before proceeding to the final stage. We desperately need a teacher module or teaching supplement."

Shis shared:

A teaching manual can significantly influence students' success. Having the teacher manual will provide me with the information on what, how, and when to teach different lessons. I will also be able to evaluate students' progress and proceed systematically. So, guidance in the Chakma language is essential.

Tuhi also said in the same way:

Teacher editions are available for both Bangla and English subjects. We know class management, lesson delivery, and student assessment. Once we have a clear plan, achieving our goals will be simple. Teaching manuals are crucial in improving the efficiency of learning.

Jyo wished for the teacher training department or relevant authorities to develop a teaching module and offer more training to introduce Chakma and other Indigenous languages soon.

4.4.4 Expert Language Teacher

Chakma language education requires experts specializing in teaching the language. These teachers do not have to be overwhelmed by teaching many courses daily. Shad shared:

I support this idea; one specific teacher should be recruited to teach the Chakma language. For example, if we appoint a teacher at the pre-primary level to teach the Chakma language, similar to how we recruit teachers for ICT subjects specifically trained for teaching ICT-related subjects, it would benefit us.

Ane said, "Teaching the Chakma language effectively when taking multiple classes in Bangla, English, and Chakma simultaneously is challenging. The ideal solution is to recruit a proficient Chakma language speaker who is a highly skilled instructor."

Anti shared the same opinion:

Alongside our Bangla and English classes, we also offer specialized courses in the Chakma language. I firmly believe that highly trained teachers are indispensable for instructing the Chakma language. Incorporating designated educators, instructional modules, and specialized training will enhance our ability to educate Chakma students effectively.

Rupa underscored the significance of finding a competent teacher proficient in Indigenous language teaching. Due to the twice-weekly Chakma language classes, inexperienced teachers and students often require additional time to finish their academic tasks. Teachers were unable to complete lessons adequately because of time constraints, leading to repetitive instruction on the same subject and causing fatigue for teachers and students.

The participants identified a correlation between teacher recruitment and the utilization of specific teaching methods for Indigenous languages. As per their suggestion, the timely recruitment of subject-specific teachers is of utmost importance. Anti stressed the importance of hiring teachers dedicated to teaching the Chakma language, allowing for focused instruction to students. Ane suggested, "I request that a competently trained Chakma teacher with up-to-date knowledge of Chakma be appointed as soon as possible to teach the language." Prod suggests that the government should assign a dedicated teacher to enhance students' learning of the Chakma language.

It has been unveiled that these logistic supports can significantly enhance Indigenous language education for students. Nonetheless, the effectiveness of all support depends on ensuring that Indigenous language teaching applies to real-life situations. The practical application of the feasibility of Indigenous language is explored in the subsequent section.

4.5. Theme 5: Use of Indigenous Languages

Scope of using the language and transferring of language knowledge from generation to generation play a big goal to survive a language. Here, context of using the language, scope of using the language, self-consciousness and personal intension play important roles.

4.5.1 Scope of Use

Indigenous languages are not used enough in day-to-day life, which makes it discouraging for students to learn the Chakma language at school. However, Indigenous people prefer to be educated in their mother tongue because it provides a more stable and long-lasting learning experience compared to learning another language. Shad said, "Yes, children show interest in learning the Chakma language. Since Chakma is the children's mother tongue, they acquire it faster than Bangla. Learning is more stable in Chakma than Bangla."

Additionally, the Indigenous population coexists with the Bangla community, the largest community in Bangladesh, within the Chittagong Hill Tracts (CHTs). This coexistence leads to a higher prevalence of code-mixing and code-switching, limiting the opportunity for Indigenous languages to be utilized in everyday interactions and public events. Consequently, this discourages Indigenous individuals from fully engaging in the formal study of their native language. Ane shared:

Even as Chakma speakers, our Chakma language identity is gradually fading as we integrate with the Bangla community and increasingly use Bangla instead of Chakma. The reason behind this is mainly our education and literacy starting with the Bangla alphabet and language. Additionally, due to the majority of our subject-related books and instruction being in Bangla, we are unable to effectively utilize our Chakma language in the classroom. Our emphasis on Bangla in education is causing the gradual disappearance of Chakma customs, language, and the traditional way of speaking Chakma language.

Ane pointed out that Chakma students in various educational settings (primary, secondary, college, and university) communicate in a blend of Chakma, Bangla, and English. Bangla is predominantly spoken in outdoor settings like shopping centers and public transportation.

Furthermore, he mentioned that since Bangla is the primary language across most sectors, the majority of Chakma words are converted into Bangla.

Certain teachers claimed they could not learn the Chakma language when they were students. As Bino pointed out, "We have been studying Bangla since childhood; there was no opportunity to study Chakma." Their efforts to receive recognition and teach the Chakma language properly are in vain, as children cannot apply it beyond the confines of the classroom. Rupa said, "Students have little difficulty understanding Chakma language textbooks. If they have any difficulty understanding, I strive to re-teach students as effectively as possible." Quick language learning gives students substantial opportunities to practice beyond the classroom. Bino stated, "We must expand out Chakma language learning and using areas. If children and I, as teachers, don't practice the Chakma language, we will forget it."

The Chakma people do not prioritize Chakma language education because the Chakma language is not widely used in their daily lives outside of the home. Sumaya shared, "Students face challenges when studying all subjects in either Bangla or English at school. Learning Chakma poses difficulties as our education system primarily concentrates on Bangla and English rather than our Native language." Shad shared:

An essential aspect of training is mastering the Chakma language alphabet, Kar Chinno (adding the vowel sound "aa"), and reading and writing systems. They can be attained with a training period of just 3-4 weeks. Without follow-up practice, one's ability to use the Chakma language will inevitably deteriorate, as practice is essential to the learning process. As an illustration, our routine includes practicing Bangla in daily conversations, reading Bangla newspapers, and regularly encountering both Bangla and English billboards, with a predominant use of Bangla because of its status as our national language. Our constant engagement with reading and writing Bangla gives us a vivid memory. It is rare to see newspapers or books written in the Chakma language. Even though there might be some, we only come across them occasionally. Without consistent practice in Chakma reading and writing, our ability to retain it diminishes as it is rarely encountered in outdoor environments.

4.5.2 Knowledge Transfer

Participants' inability to recognize and acknowledge their emotional bond to their Native language hindered the transfer of language knowledge, particularly in writing.

4.5.2.1 Lack of Consciousness

Participants in the MLE (Mother Language Education) training highlighted the importance of acquiring a deeper understanding and consciousness of Indigenous languages. Shuvo expressed the same view that they had yet to learn the Chakma language before receiving school textbooks. Shuvo says, "Regrettably, it is an undeniable truth that despite the diverse historical uses of Indigenous languages, Indigenous individuals have displayed a lack of motivation to learn and use these languages for various purposes." Shuodorshi shared an experience:

I want to tell you about an experience I had. One of my brothers lives in India and once wrote a letter to my father in the Chakma language. As Bangla is not widely spoken in all parts of India, my father couldn't understand the Chakma letter as he can't read the language. The only person who could read it was my grandfather. This experience will forever stay in my memory.

This incident demonstrates that Indigenous individuals did not fully preserve and transmit their language skills from one generation to another.

Indigenous individuals lack motivation to acquire literacy in their Native language.

Proficiency in the Indigenous language is necessary for identifying textbook errors. Shuvo shared a story:

Out of curiosity, I gave my grandfather a Chakma textbook to see how it was written. He discovered many errors while scanning the book. As we teachers lack experience, we are incapable of rectifying any errors in the book. As we become more familiar with the

Chakma language, we'll develop the ability to pinpoint errors in the book and know how to correct them.

A few interviewees did not raise any inquiries regarding the prolonged duration of receiving the teaching manual. Shuvo pointed out:

We, the Chakma people, share partial responsibility for the delay in having a teaching manual in our own language. Our main focus is on the textbook we need for teaching. Written instruction is not something we are concerned about. Figuring out how to master the Chakma language is not our main concern. We neglect to explore the possible approaches for effectively teaching students the Chakma language. It is my belief that a module for teaching Chakma textbooks will be developed at a later stage. The apathy towards learning their native language among individuals hinders parents from helping children become proficient in it, affecting their language development.

Participants stated that Indigenous language teachers and even Indigenous communities in Bangladesh depend on various organizations to tackle Indigenous language learning concerns. Vaygo mentioned that parents are unable to help students with their studies at home due to their inability to read or write Chakma. Since parents lack literacy skills in Chakma, they are unable to help their children in learning the language outside of spoken communication. Vaygo thought that a collaborative effort between the government, other organizations, Indigenous language teachers and Indigenous communities is necessary to improve the Chakma language.

4.5.2.2 Discover Language Importance

The interviewees realized the value of their Native language when they started learning it as a second language. They conveyed that if allowed to receive education in their native languages, other tribes would take pride in their Indigenous languages. Mchak suggested that studying in one's mother tongue help students learn their own language and improve their understanding of it. He affirmed that Indigenous people now comprehend, to some extent, the importance of preserving their language. Prod said, "Publishing textbooks available in other Indigenous languages would enable more Indigenous students to access them. This approach benefits everyone and fosters pride in their languages."

4.5.2.3 Rights of All Tribes

All Indigenous groups have the right to education in their Native language, which would decrease their feelings of marginalization. Pepe believes that it would be beneficial for other language learners to receive education in their mother tongue. Prod said, "We can now speak and write in the Chakma language because of textbooks, however, other communities cannot. This deprivation could have been avoided if they had an education system in their own language, just like others."

Moreover, most of the interview participants asserted that the emotional impact of education in a Native language is incomparable to that in a different language. The fondness for the mother tongue sparks a desire to acquire the language, and this can be fulfilled by gaining access to education in the Native language. Mchak said:

I believe everyone should have the right to learn their Native language. Communities can access education in their language through books or other mediums. When reading or learning in their Native language, people experience different emotions and develop unique interests. Learning a foreign language is challenging and requires much focus.

According to Mchak,

Knowing about our own language allows us to comprehend many specifics. Lack of access or opportunity to study in our mother tongue hinders our understanding of its nuances. All communities deserve an education in their preferred language. I would be happy if textbooks were available in all languages.

Furthermore, the right to education in Indigenous languages will aid in language preservation and intergenerational transfer. Seli emphasizes the importance of textbooks in Indigenous communities, as they enable the learning of language and the preservation of Indigenous knowledge. Tuhi said:

If textbooks for Indigenous languages like Chakma had existed, students could have learned their languages more effectively. The Chakma, Marma, and other tribes risk losing their languages and cultures if they do not learn them. Educating Indigenous people in their traditional languages is something I consider necessary.

Hiring Indigenous language teachers, training them, and conducting more research are crucial for preserving these language rights. Bino stated that students in all languages would have been advantaged by having books available in their Native language. She mentioned that this would allow students of all languages to receive education in their own language. In addition, she

proposed recruiting and training teachers for each language separately. In this way, both students and teachers would gain advantages. Jyo states, "Knowledge has no bounds due to the vastness of language. Additional research is required to educate children about the Chakma tradition, history, language, identity, and heritage."

The next theme examines Indigenous teachers' teaching and assessment approaches, as they play a crucial role in language knowledge transfer within institutions.

4.6. Theme 6: Teaching and Assessment Strategies

4.6.1. Slow and Easygoing Teaching Method

As Chakma is seen as a newly emerged language, participants in the classroom embrace a gradual and relaxed teaching method. The teachers acknowledged the difficulties they encounter while teaching students, but are committed to overcoming them and delivering top-notch education. According to Shan, teaching unfamiliar skills in the Native language makes them seem new to students. In order to teach her students a new language, she takes an easy-going and unhurried approach. This is how her students can rapidly grasp the Chakma language. Mchak said, "From the start, learning the Chakma language has been challenging due to the lack of prior study among Chakma language learners. When they struggle with Chakma, I assist them by pointing out errors, aiding comprehension, and explaining the readings."

Bino noted that not all students can fluently read and write Chakma. If someone did not get it, she would patiently explain it multiple times. Students were motivated to engage in regular conversations with her and consistently improve their writing skills. Sumaya mentioned that because there was a lack of class time, she decided to give the students homework. She requested

the support of Chakma parents who were literate in the Chakma language to aid students with their assignments and foster a habit of reading at home.

4.6.2. Practice with Real-life Examples

Teachers create a pleasant classroom atmosphere by connecting personal experiences and using real-life examples, as there is no teaching manual for Indigenous language learning. Rupa stated, "The Chakma language teaching style differs from the Bangla language. The main reason is that Chakma characters are complex for students because they are completely different from Bangla or English." Mchak's goal was to foster a pleasant learning environment in the classroom, similar to studying a foreign language, to achieve successful teaching. Shan responded similarly, "We have not yet received a teacher's module or manual for teaching. Our objective is to develop a holistic system that is built upon our individual experiences. We aim to ascertain the most effective methods of student learning through proper instruction." Seli recommends that students engage in reading and writing exercises to address any difficulties with textbooks, as the Chakma language teaching handbook is yet to be released. Tuhi said, "As there is no specific teacher's guide for instructing Chakma, I rely on Bangla or English guides and follow their steps to teach the Chakma language effectively."

Mchak came up with a makeshift lesson plan as a temporary solution. He said, "I first prepare lesson plans to make my lessons successful. Then I try to teach students through these lesson plans so that they understand well."

4.6.3. Assessment Strategies

Interviewers assess students' progress by asking questions and assessing their reading and writing abilities. Poppy shared:

The assessment tests I administer align with the content taught in my class. It appears that they are making slow progress. Due to my constant questioning on various subjects, students have a good grasp of the Chakma language. I kept insisting that they communicate, read, and write in the Chakma language during class. I came to understand their progress by asking questions repeatedly. As a result, they can speak and write the language quickly.

Prod stated that he depended on lesson plans to gauge the progress of students. He said, "I create lesson plans to assess student progress... and evaluate student progress through that lesson plan."

Sumaya prefers continuous reading and writing assessments in Indigenous language classes. She mentioned, "I read the book aloud to the students and then students practice writing. Next, I allow them to read and write once more, and I evaluate their progress by assessing their reading and writing skills."

During the interview, the interviewees suggested improvements, problem-solving strategies, and essential measures to enhance Indigenous language instruction. These issues are addressed in theme seven.

4.7. Theme 7: Recommendation of Participants

4.7.1. Topics Need to be Incorporated

The participants suggested incorporating information on Indigenous languages' word and sentence structures, as well as their history, culture, heritage, and traditions, to enhance the effectiveness of the language course.

Jyo believes that "the boundless nature of language results in an infinite quest for knowledge. Further research on the Chakma language is necessary for children to learn about Chakma tradition, history, language, identity, and heritage." Poppy proposed supplementing textbooks with additional information on the Chakma language, history, culture, and heritage to foster a deeper appreciation of the Chakma culture and heritage among students.

Mchak said we could begin by teaching the Chakma alphabet, followed by word formation. Mchak added, "We should offer a Chakma language teaching course. Topics covered in this course include the Chakma alphabet, language, and historical context. It should offer guidance for tackling the language learning challenges Chakma students and teachers encounter."

According to Shad, "the Chakma language textbooks contain Ajapath (Vowel),
Arjabipath (Consonants) ... in the textbooks. We can include Posson (novels and fairy tales),
Chakma songs, rhymes, and stories that are part of the Chakma language and culture, which the
current Chakma generation often does not have exposure to or knowledge of." When he was six
or seven, he used to listen to those. His grandparents told him these Posson (novels and fairy
tales) at night as a child. According to him, it would be perfect to gather those Posson from the
older generation and include them in Chakma textbooks. He thinks that the old generation and the
"Kaviraj" (village doctors) who are still active in the Chakma language should be consulted for

this information, as they have more expertise. According to him, the survival of a language is tied to the survival of a race. It is essential to prioritize the learning and appreciation of the Chakma language. Mchak said, "I would distinguish between official and informal Chakma language, as they vary significantly. I will teach students how to communicate in the official or formal Chakma language with others and among their peers." Mchak suggests that after teaching grammar, sentence formation should be taught.

4.7.2. Research Work and Revise Books

More research is needed on Indigenous languages, and errors in published books should be resolved by Indigenous language experts. Jyo said, "there are endless possibilities for acquiring knowledge in the vast Chakma language. Additional research is necessary to provide children with knowledge about Chakma culture, history, language, identity, and heritage." Seli highlighted the importance of conducting additional research on the Chakma language to facilitate a more profound comprehension for children, parents, and educators. According to Shuvo, Chakma experts should take care of this and also develop the teacher's manual. It is critical, as Tuhi said, "I think if prominent language researchers and educators did research on the Chakma language, we would have better texts to help us read and learn the Chakma language better." Vaygo stressed the importance of different organizations conducting research on the Chakma language to enrich it. Shuvo stated, "Chakma language learning will be more dynamic and planned if new research materials can be developed on the Chakma language and if teachers can obtain and use these materials in class."

Tuhi claims, "The combination of research and the availability of books in the Chakma language has allowed children to gain knowledge of the language's alphabet and words. They can

speak, read, and write in Chakma. Further research into the Chakma language could have helped academicians correct book errors. Thus, more research would contribute to publishing more Chakma language books, significantly developing our language."

Chapter 5: Discussion and Future Recommendations

5.1. Discussion

5.1.1 Views about Access to Training

As all the participants in the interview are Chakma language speakers who teach the language in their classes, they are more proficient in speaking and listening skills of the language than in reading and writing skills. The absence of practical applications for Chakma language reading and writing skills led to this outcome. It pertains to all other Indigenous languages in Bangladesh. Participants in the interview said they are proficient in two skills (listening and speaking) in their Indigenous language. Before being trained, they had no reading or writing skills in that Indigenous language. Some of them were even unfamiliar with the existing alphabets of their own Indigenous language. Since Indigenous teachers are not proficient in Indigenous languages, they cannot contribute to quality education and language revitalization. These interview findings align with a specific aspect of the theoretical framework of this research work, as Blank and Alas (2009) highlight the relationship between teacher professional development and student achievement. Their report highlights that standards-based educational improvement aims to ensure teachers have a deep understanding of the subjects they teach. The Te Huarahi M aori teacher education program in New Zealand is a very good example of a teacher education program that focuses on training teachers to teach at M⁻aori-medium education sector. Te Huarahi M aori is a Bachelor of Education (Teaching) initial teacher education (ITE) degree program offered by the Faculty of Education and Social Work at the University of Auckland in the medium of Te Reo Maori (Stewart et al., 2017). Huarahi Maori was developed in response to teacher shortages in the burgeoning M⁻aori-medium education

sector in the mid-1990s. In the Huarahi Maori program, educators are trained to engage actively with Te Reo Māori (the Māori world) through language, knowledge, a commitment to teaching, and a working understanding of tikanga (cultural customs) in various settings. Throughout the Huarahi Māori program, the philosophy of Kaupapa Māori theory plays an essential role. Te Huarahi Māori applicants are required to demonstrate an acceptable level of language proficiency during the interview process. Although students enter the program with a wide range of language competence and learn at varying rates, graduates must demonstrate proficiency according to TātaiReo, an oral and written proficiency framework for Māori-medium teachers (Stewart et al., 2017).

Similarly, the Hawaiian language teacher education program in the United States is another successful teacher training program. In the United States, Hawaiian language educators enroll in the Kahuawaiola ITEP (Indigenous Teacher Education Program), which prepares kumu (teachers) for initial teacher licensure at the elementary and secondary levels of kula kaia olelo-kaiapuni Hawai (Hawaiian language medium-immersion schools) (Alencastre & Kawai ae a, 2017). Kumu (teachers), who speak the Hawaiian language and culture, possess a knowledge of culture-based pedagogy and dispositions, are essential to maximizing the success of this educational program. Kahuawaiola ITEP courses provide pre-service teachers with a holistic, Hawaiian-medium, culture-centric curriculum that develops competence in creating, teaching, and assessing quality lessons based on Hawaiian culture. These Student-teachers undergo extensive classroom experiences, formative and summative assessments, and practicum requirements to ensure they are prepared to teach in Hawaiian. Kula kaia olelo-kaiapuni Hawai (Hawaiian language medium-immersion schools) have played a major role in revitalizing the Hawaiian language over the past 30 years. In 1983, there were fewer than 50 native speaking

children, but now there are over 3,000 students enrolled in pre-high schools (Alencastre & Kawaiʻaeʻa, 2017). It is evident from the success of Kula kaiaʻōlelo-kaiapuni Hawaiʻi (Hawaiian language medium-immersion schools) that preparing teachers through training programs, like, Kahuawaiola ITEP (Indigenous Teacher Education Program) played the major role which program prepared Kumu (teachers) who are fluent in Hawaiian language and culture. These proficient teachers assist in Hawaiian language and culture protection and passing their knowledge to next generation.

Passing of Indigenous language knowledge to the next generation does not only make next generation Indigenous language proficient, but also contribute to their mainstream language proficiency. Wright et al. (2000) conducted a study on the language acquisition of children residing in one of the larger communities in Nunavik, Canada. The investigation involved assessing English, French, and Inuktitut proficiency at the onset and culmination of the initial three academic years (Kindergarten through Grade 2). They discovered that students who received education only in Inuktitut not only developed proficient Inuktitut skills but also showed consistent progress in English and French, despite not being taught in these languages during classroom instruction. Conversely, Inuit students who received their primary education in English or French progressed in these dominant languages, while their Inuktitut proficiency declined (Wright et al., 2000). Since one of the most promising language revitalization methods is including the Aboriginal language as a language of instruction in schools, Aboriginal communities in Canada have risen to the challenge (Usborne et al., 2011). They are actively working towards revitalizing their Aboriginal languages. In some cases, they even re-learn these ancestral tongues. This relearning of Indigenous language and going through adequate Indigenous language training programs are very important for Indigenous language teachers in

Bangladesh, as most teachers are not fluent in all four skills (listening, speaking, reading and writing) of Indigenous languages.

In Bangladesh, teachers who underwent training in Indigenous languages before teaching them in class felt like they were learning a foreign language. Participants revealed that they felt they should undergo extensive and long-term training since they are expected to teach this language in the classroom to students from pre-primary to level three. Participants said that teachers who were competent in their Chakma Indigenous language felt more confident about contributing to students' language proficiency in the classroom. Hence, Indigenous language teachers in Bangladesh require essential in-service, long-term training in Indigenous languages. Kennedy (1998) emphasizes the significance of in-service teacher education, highlighting its role in long-term professional development. He discovered that the teacher training workshops in education lasting for a short period were not only brief but also often irrelevant to the actual teaching process. These workshops treated teachers as passive recipients rather than active participants and often focused on the wrong topics. According to Jones and Chen (2012), teachers' confidence, preparation, and language knowledge are closely connected to their teaching effectiveness. As Indigenous teachers in Bangladesh are already involved in teaching Indigenous languages, they must receive intensive and long-term professional training in Indigenous language education to rapidly improve their effectiveness. Damnet's (2021) study found that pre-service English as a Foreign Language (EFL) teacher training was critical to second-language teacher education but that scheduling time and activities were limitations. The study discovered that the training helped student-teachers acquire confidence before beginning their practicum. It also revealed that increasing training time availability could further enhance student-teacher confidence and preparedness. Hill et al. (2007, as cited in Blömeke et al., 2022)

also found a similar result in their study: teachers with lower content knowledge made more mathematical errors in primary education, while those with higher knowledge used richer representations, explanations, and justifications. Therefore, since Indigenous language learning in Bangladesh is school-based, teachers should be adequately trained and get adequate Indigenous language knowledge to properly teach this language in the classroom, which will directly contribute to Indigenous language revitalization.

The participants found differences between pre-training and post-training Indigenous language teaching experiences in Bangladesh. They felt that they were less proficient on the Indigenous language before getting training. Their expertise and fluency in the Indigenous language significantly improved during a short training period of two to three weeks, enabling them to acquire new knowledge about their own Indigenous language, as if it were a foreign language. They also learned about Indigenous language teaching strategies and materials during those trainings. Throughout those training sessions, they realized the significance of Indigenous languages in shaping their distinct identity. This research outcome aligns with the ideas of Kennedy (1998), and Blank and Alas (2009), which serve as the theoretical foundation for this thesis. They stress the importance of in-service teacher education and professional development in enhancing the proficiency of Indigenous teachers. Their study also features the disparities between pre-trained and post-trained teachers in terms of subject knowledge and pedagogical knowledge. Alcaraz-Mármol (2018) conducted a study comparing the responses of those receiving specific methodological Content and Language Integrated Learning (CLIL) training to those not in Spain, as bilingual education has gained increasing attention there since the early 2000s. Although the need for teachers with specific accreditation in foreign language proficiency grew during that period, the methodological foundation for integrating content and language in

the classroom is not a mandatory requirement (Alcaraz-Mármol, 2018). This study indicates that methodological training beyond foreign language teaching significantly impacts teachers' opinions and practices regarding CLIL, as well as their use of bilingual practices in their classrooms, utilizing a greater variety of activities and resources in their classrooms. Also, differences were observed in how they perceive their own teaching, how they use their L1, materials in the classroom, and the types and variety of activities they develop to use with their students (Alcaraz-Mármol, 2018).

The participants, on the other hand, said the training helped them recognize the importance of their mother tongue and revealed their love for it. Training increased their curiosity about learning all four skills (listening, speaking, reading, and writing) of Indigenous languages, which could lead them to become more conscious of the importance of their language, as well as more knowledgeable and experienced Indigenous language teachers. If they could develop strong Indigenous language background knowledge, it would increase their enthusiasm for providing support to improve students' language skills. The research findings align with Blank and Alas's (2009) suggestion in the theoretical framework that teachers' effectiveness in teaching specific subjects is greatly affected by their level of knowledge and expertise. Interviewees recognized the need for more training in Indigenous languages to improve their language skills and facilitate the transfer of Indigenous knowledge. Since training ensures competency of teachers, teachers should provide the most effective education for children and contribute to language development, sustainability, and protection of Indigenous language, especially the written form of the language. Catalano et al. (2000) conducted a study on students in a bilingual teacher training program, exploring the use of Indigenous languages in preparing teachers for Latino/a/x Indigenous students. Their study found that language study is crucial for combating racism, bridging the gap

between home and school, promoting multilingual awareness, and facilitating the transition to new teaching methods. The study suggests that incorporating Indigenous language study into bilingual teacher preparation programs is crucial for re-centering Indigenous peoples and enhancing their teaching practices.

Participants expressed that long-term continuous training, which is more than one to six months long, can help teachers absorb the Indigenous language properly and be proficient in the language. Long-term continuous training will enable them to teach the language effectively, contribute to teaching the language in a better way, and ultimately improve the language skills of students. The interviewees' comment emphasizes the significance of Kennedy's (1998), and Blank and Alas's (2009) ideas, which demonstrate the need for ongoing, content-focused professional development programs for teachers. They also stated that these programs should be continuous and ultimately, improve teacher effectiveness in the classroom. These programs are essential for Bangladeshi Indigenous language teachers who teach their mother tongue as a new language with other languages like Bengali and English at school. Goldhaber and Anthony (2005) said that an increasing amount of evidence indicates that the instructor's quality in the classroom is the most critical element influencing student results, which Hanushek (1992, as cited in Goldhaber & Anthony, 2005) proved in his research that students who have very highquality teachers will learn 1.5 grade-level equivalents, while students who have low-quality teachers will only learn 0.5 grade-level equivalents. Thus, since in Bangladesh, Indigenous language teachers learn Indigenous languages like a new language, teacher training, teachers' language efficiency and overall teacher quality development should go side by side.

Long-term training would bring success when the teachers would be certified Indigenous language experts. This Indigenous language teacher certification is vital for Bangladeshi

Indigenous language teachers, as some teachers teach Indigenous language in the classroom without even training. The shortage of Indigenous language teachers in the remote primary schools in Chittagong Hill Tracts (CHTs) and other Indigenous-populated regions of Bangladesh forces them to do this. This certification will also ensure the standard of Indigenous language teachers. The Government of Bangladesh must promote the widespread use of Indigenous languages. Increasing the use of Indigenous languages is crucial because it is necessary to pass down language knowledge from teachers to students and then from students to parents and the Indigenous community in order to combat the loss of Indigenous languages. This language knowledge transmission is more important in Bangladesh, as Bangla is the dominant language. The second most demanding language in Bangladesh is English, not Indigenous languages. Regarding long-term teacher training and quality teacher development, the Cree language teacher education program is a good instance. The Cree language teacher education program in Canada is an example of a long-term teacher training that develops quality teachers for quality teaching. The Cree language in the 1970s was widely spoken in all Cree communities; most adults spoke Cree, and fluent speakers were heard at meetings, events, and gatherings (Lewis et al., 2017). Cree use changed within the next three decades because English became the dominant language, and many young adults in the 1970s lost their fluency. Parents and grandparents cannot transmit the Cree language to their children and grandchildren now, as English is the predominant language spoken at meetings, events, and gatherings. As a result, the predominant language spoken at meetings, events, and gatherings has become English. Although there was a movement to teach Cree in primary, secondary, and tertiary educational institutions, this did not significantly impede language loss. A mixed classroom of fluent and non-fluent speakers was taught Cree; success was seen with this classroom type. There were successes in this type of classroom; however, the need for a Teaching Certificate in Cree emerged as the surrounding

communities expressed urgency for greater quality teaching. As a result, the University of British Columbia (UnBQ) developed a BA in Cree program that caters to fluent and non-fluent learners. Like most mainstream post-secondary institutions, UnBQ's language classes were linguistically focused, where students conjugated words but did not develop functional fluency in Cree (Lewis et al., 2017). They aim to create teachers who are experts in second-language teaching methodologies and want to understand Cree grammar from a Cree perspective rather than a linguistic one. In 2011, UnBQ introduced the Bachelor of Arts program in Cree; as part of the program, a core immersion-based class was offered using the 'root word method' developed by Brian Maracle, who used it to teach Mohawk. He identified common root morphemes and then created exercises that taught students how to combine these roots into words and attach inflectional morphemes. In this manner, students were taught to create words and combine them into sentences. Some of his students had impressive functional fluency with his format in six months (Lewis et al., 2017).

Participants recommended reducing the gap between training sessions, including long-term continuous training, as they were learning a language where two skills, reading and writing, were almost entirely unfamiliar to all interviewees, and they acquired these two skills similarly to learning a second language. This result is consistent with the viewpoints of Kennedy (1998), and Blank and Alas (2009), which suggest that teacher professional development programs should be continuous, long-term, and centered on content to improve teachers' teaching efficacy. Thus, initially Indigenous language teachers should continue their preparation program to teach Indigenous languages in an actual classroom setting for at least one year. Collaboration among different stakeholders is vital during the smooth transition of training skills. Continuation of this preparation program becomes even more imperative for these teachers since they instruct English

and Chakma as second languages. If we look at this from a student's perspective, children gain Bengali, English, and Chakma or another Indigenous language at the primary level; they learn the reading and writing skills of three languages simultaneously, which is challenging for students and difficult for teachers to teach as well. Therefore, it is a recommendation to continue the preparation program for Second Language Teaching (SLT) for at least one year. Regarding the Second Language Teaching (SLT) preparation program, Farrell (2012) said:

Since novice-service teacher development begins at preservice SLT preparation programs and continues into the first years teaching in real classes. It includes three main stakeholders—novice teachers, second language educators, and school administrators—all working in collaboration to ensure a smooth transition from the SLT preparation program to the first years of teaching. The idea is that the knowledge garnered from this tripartite collaboration can be used to better inform SLT educators and SLT programs so that novice teachers can be better prepared for the complexity of real classrooms. (p. 439)

Participants in the interview expressed the opinion that new, well-trained, subject-specific, and appropriately trained Chakma language teachers should be recruited. This review also confirms the viewpoints of Kennedy (1998), and Blank and Alas (2009), who argue that comprehensive, long-term training targeting the content teachers intend to teach is imperative for fostering effective and successful teaching practices. According to Landertinger et al. (2021), "Appropriately trained refers to teacher training that focuses on the needs of Indigenous learners and is grounded in Indigenous ways of knowing and doing" (p. 39). Their expertise will enable them to provide a better education for children. Countries have different strategies to recruit skilled teachers and improve Indigenous language competency, teaching strategies, and classroom management systems. In Bangladesh, teachers have minimal Indigenous language

competency. Therefore, during the recruitment of teachers, two aspects that McDonald showed in her research during the Assembly of First Nations in 2011 should be considered: "(1) teaching in the native language, and (2) teaching the native language" (p. 3). Academic or language institutions should work together to increase native language teachers' language proficiency and proliferate their teaching skills to achieve a sustainable and positive language teaching result. Kavanagh (1999) in his notebook wrote,

The First Nations Language Teacher Certificate only requires proficiency in the language and does not require a university degree in teacher education. However, many Aboriginal language teachers have realized that just being a fluent speaker of the language does not mean that you are a good teacher. To address this issue, a number of public and Aboriginal post-secondary institutes have initiated courses and programs to give Aboriginal language teachers skills to be effective in the classroom. (p. 88)

Landertinger et al. (2021) identified 50 teacher education programs (TEPs) in Canada, the United States, New Zealand, and Australia as effective recruitment and retention strategies. This study emphasizes the significance of facilitating access, removing financial barriers, and offering Indigenous-focused programs (Landertinger et al., 2021). It is seen that Indigenous people in those countries mostly live in remote areas like Bangladeshi Indigenous people as a majority of them live in CHT, which is the remotest corner of the country; it sometimes takes more than one hour just to move from one hill to another one. One participant shared his experience, "The hilly area is too remote, and some students do not come to the district town, even to the Rangamati area. Suppose where I work as a school teacher from the Upazilla, which is 150 kilometres away, just on the river way. If you start in the morning, you will arrive at 5pm. Now, some Burmese boats move faster than local boats; if you take that boat, it will even take a whole day to reach my

school. If I go walking, the villages become straight, so it becomes comparatively easier to travel by walking than by boat. If you even go on foot, reaching my school will take at least 6 hours." Regarding remote communities Landertinger et al. (2021) recommend that as remote communities find it difficult to travel to distant TEPs, a TEP could be modelled as a communitycentred program in which instruction is delivered off-campus, and instructors and students meet in person. For example, the Nunavut Teacher Education Program (NTEP) is a community-based program offered by the University of Regina and Nunavut Arctic College for Inuit teacher candidates. Similarly, the Indian Teacher Education Program at the University of Saskatchewan has been using community based TEPs since the 1970s, maintaining an overall success rate of 90% (University of Saskatchewan, 2018a, as cited in, Landertinger et al., 2021) as one of the most effective programs for attracting and graduating Indigenous teachers. Several Canadian universities and colleges have adopted this model due to this trend, including the University of Alberta, University of Saskatchewan, and McGill University. Further, financial aid is mostly provided in Canada through scholarships, bursaries, and awards, as showcased at Lakehead University, Brock University, and Wilfrid Laurier University (Landertinger et al., 2021).

Another successful strategy for increasing Indigenous teachers is to be flexible in the admissions process (Landertinger et al., 2021). Applicants may be granted recognition if they possess relevant life and work experience in the community and are fluent in an Indigenous language. It would entail admitting teacher candidates provisionally, requiring pre-program preparation courses, and offering bridging programs for potential teacher candidates to obtain the qualifications required for admission (Landertinger et al., 2021). This Indigenous language teacher recruitment process should also be accompanied by socio-political and emotional well-being of Indigenous language teacher which is reciprocated by interviewees.

The Chittagong Hill Tracts (CHTs) region in Bangladesh has been grappling with the ethno-political conflict between the Indigenous Pahari (Hilly) population and the Bangladesh army for several decades (Islam et al., 2022). The conflict had its roots in the Constitution of Bangladesh in 1971, which denied Indigenous identity and self-determination. It was further intensified by migrating Bengali people into the region. In December 1997, a Comprehensive Peace Accord (CPA) was signed between the Bangladesh Government and Parbattya Chattagram Jana Samhati Samiti (United People's Party of the Chittagong Hill Tracts), bringing optimism to end the prolonged conflict and establishing peace. Even after signing the pact, conflicts persist in the region between Bengali and Pahari communities, primarily over resources and distribution of social, economic, and political power (Islam et al., 2022). Therefore, if training programs are long-term and cover different aspects of Indigenous language teaching, and the emotional, political, and social well-being of these Indigenous teachers, it will benefit the success of Indigenous language teaching programs. Their vulnerability feelings are raised by one participant, "various Indigenous groups including Chakma, Marma, Kheyag, Murong, Bong tribes live in hilly areas. Here, they suffer from various exploitations and deprivations. So, I think that in this democratic state of Bangladesh, there should be no exploitation and deprivation of Indigenous people. Therefore, the government should look into these matters." TEPs enhance teachers' confidence if they address academic and sociocultural issues that hinder their performance; according to Landertinger et al. (2021), some TEP programs increasingly offer initiatives focusing on Indigenous teacher candidates' emotional and mental well-being, and academic support and tutoring services. TEPs facilitate participation in Indigenous-oriented curriculums by utilizing Indigenous languages; for example, University of Saskatchewan teacher candidates and graduates can acquire Indigenous languages as part of their teacher training to pursue a two-year certificate in Indigenous Languages. Similarly, the

University of Hawai'i offers a Kahuawaiola Indigenous Teacher Education Graduate Program Certificate, one of the most immersive programs designed for three semesters to prepare teachers for various educational settings (Landertinger et al., 2021). These include Hawaiian language medium schools, Hawaiian language and culture programs in English medium schools, and schools catering to students with a solid Hawaiian cultural background (University of Hawai'i at Hilo, 2017, as cited in Landertinger et al., 2021). Coursework and practicums are conducted in the Hawaiian language and based on traditional Hawaiian pedagogy.

Participants suggested that the government appoint subject-specific teacher(s) to accelerate Indigenous language education programs to alleviate the burden on teachers learning and teaching their mother tongue as a foreign language. Kennedy (1998), and Blank and Alas (2009) propose implementing long-term, content-specific in-service programs to enhance teacher competencies. Implementing such programs would effectively enhance the confidence of Indigenous language teachers and ease their apprehension when teaching Native languages as an additional language. Jeschke et al. (2021) found in an exploratory study that teaching effectively requires subject-specific knowledge and the ability to implement that knowledge in demanding classroom settings. The authors investigated the ability to apply subject-specific knowledge to German secondary school pre-service teachers equally trained to teach mathematics and economics. For this study, a paper-pencil test was administered to 37 pre-service teachers for subject-specific knowledge of both subjects; the study results indicate a systematic qualitative difference between pre-service teachers' responses to mathematics and economics. Subjectspecialized conceptualizations enable teachers to apply better disciplinary-specific knowledge to instructional settings; therefore, for teacher training, learning opportunities should be designed to facilitate the application of subject specific knowledge in instruction by promoting teachers'

ability (Jeschke et al., 2021). Another study by Sancassani (2023) found a similar result where he examined the effect of teacher subject-specific qualifications on student science test scores in four different science subjects, biology, chemistry, physics, and earth science, to test whether teachers holding a subject-specific qualification raised student test scores. According to the study, teacher subject-specific qualifications in one subject increased student test scores by 3.5% in the same subject (Sancassani, 2023). Research also indicates that the effect of teacher subject-specific qualifications is more substantial in lower-performing countries, and teachers with subject-specific qualifications are more likely to feel confident teaching topics related to their majors.

5.1.2 Teaching Time

During the interview, participants mentioned that although the language is taught like a foreign language, they would require more class time to teach it. Since students receive fewer classes each week and study three languages, they forget what they learned in Indigenous language class. As a result, teaching remains ineffective since Indigenous language learning has not improved significantly; participants noted that students required more class time to master the language. According to Lightbown and Spada (2019), "research in programs that provide limited instructional input has shown that more classroom time leads to more L2 learning" (p. 423). They also reveal that for learners whose first language is used by a small group of people in an area or territory of country, an early start will require additional hours of instruction. Considering CLIL and immersion programs used for intensive instruction in a second language and content-based instruction programs, two things have been accomplished: language learning time has been extended, and academic content has been enhanced by adding more academic content. This approach, however, takes place in a context in which students' first language development is

prioritized and supported (Lightbown & Spada, 2019). That means the government of Bangladesh should not only focus on the promotion of Indigenous language learning by providing training to teachers, curriculum, content, educational facilities, and number of teachers but also on sufficient class time to make Indigenous language learning programs sustainable and successful.

5.1.3 Opinions About Government Initiatives

Before being trained and receiving textbooks, participants who could not read or write in Indigenous language expressed positive feedback about government initiatives to protect Indigenous languages. The interviewees suggested that government authorities should focus on various education-related matters like providing more long-term training, teaching modules, and other logistical supports to make Indigenous language teaching smooth and sustainable, which will contribute to students' progress. The works of Kennedy (1998), and Blank and Alas (2009) revolved around enhancing education through standards-based improvement. They stressed the value of collaboration, classroom-based practice programs with classroom visits, and subjectoriented support for teachers to improve their teaching effectiveness. Krone (2013) discovered the same thing while examining the rising diversity of Indigenous language teaching regulations in the United States. He said that Indigenous Language Teacher Certificate (ILTC) regulations in the United States show the variety of certification opportunities available through formal education systems, which require decentralized political processes; however, these regulations allocate authority but, in most cases, do not provide resources or support for teacher training (Krone, 2013). He also added that language teaching goals and norms are often unclear and determined by stakeholders at various educational levels; therefore, he stressed the importance of Indigenous language teacher certification for introducing diverse languages and cultures to mainstream education and incorporating them into normalized political processes.

In this case, Canada played a role by responding to the Truth and Reconciliation Commission's Calls to Action 62 in consultation and collaboration with survivors, Aboriginal people, and educators (Government of Canada, 2024). First of all, the Government of Canada urged federal, provincial, and territorial governments to implement mandatory education for Kindergarten through Grade 12. This education should cover topics such as residential schools, Treaties, Aboriginal history, and contemporary contributions to Canada in a manner suitable for their age. The second step involves funding post-secondary institutions to educate teachers on integrating Indigenous knowledge and teaching methods into the classroom. A third recommendation is funding Aboriginal schools to use Indigenous knowledge and teaching methods in the classroom. They promised to provide funds to revitalize Indigenous languages; for instance, over two years (2021-2022 to 2022-2023), the Minister of Canadian Heritage provided \$11.1 million to support Indigenous communities and organizations in Saskatchewan (Government of Canada, 2022). The funding aims to support initiatives prioritizing Indigenous language reclamation, revitalization, maintenance, and strengthening. Using this funding, more community-driven activities would be conducted to preserve Indigenous languages, and more resources would be available to strengthen and revitalize these languages. The investment would fund language-learning activities, including language instruction, language nests, language and culture camps, language development and translation, mentor-apprentice programs, and language training for instructors. Moreover, in 2022, the Government of Canada emphasized investing in multimedia resources, dictionaries, online/digital language training, and strategic language plans for the Indigenous Languages and Cultures Program (Government of Canada, 2022).

Participants pleaded for government attention to prevent the exploitation and deprivation of Indigenous people in hilly areas of Bangladesh. In 1997, an agreement was signed between the Government of Bangladesh and the Parbattya Chattagram Jana Samhati Samiti (United People's Party of the Chittagong Hill Tracts), an Indigenous party (Cultural Survival, 2017). The CHT Regional Council Act of 1998 was enacted following the signing of the Peace Accord in 1997 (Local Government, 2017). The Peace Accord marked the end of a 20-year armed conflict and established a framework for acknowledging and enhancing the CHT self-government system. This accord's provisions are expected to enhance Indigenous peoples' lives in the CHT and foster better relations between Indigenous communities and the Bangladesh government (Cultural Survival, 2017). The government of Bangladesh also prioritizes other tribes in plain lands (Local Government, 2017). They have a special affairs division under the Prime Minister's Secretariat that oversees the development of the Indigenous population outside the CHT. This division also provides development funds, including student stipends. A positive step is that the government has recognized the vulnerable situation of Indigenous peoples in the PRSP (Poverty Reduction Strategy Paper) document. Indigenous peoples participated in government-organized consultations where both parties emphasized the importance of addressing their communities' unique challenges and development needs (Local Government, 2017). To improve the condition of Indigenous people, suggestions have been made to restructure the Ministry of Chittagong Hill Tracts Affairs by expanding its scope to include other plain-land Indigenous people, undertake measures to preserve the language of the Indigenous people, take up a particular program for poverty reduction among the Indigenous people, to incorporate their culture in the national curriculum of education, and to formulate a policy for the development of Indigenous people and implement laws. The PRSP suggests it is necessary to educate Indigenous people with a curriculum that allows learning in their language at the primary level. World Bank is also part of

this project, which requires the development process to respect the dignity, human rights, economies, and cultures of Indigenous Peoples. The Bank provides project financing only where free, prior, and informed consultation results in broad community support for the project by the affected Indigenous Peoples. Bank-financed projects aim to avoid adverse effects on Indigenous Peoples' communities. When avoidance is impossible, they implement measures to minimize, mitigate, or compensate for such effects. Bank-financed projects are also designed to ensure that the Indigenous Peoples receive social and economic benefits that are culturally appropriate, and gender and inter-generationally inclusive. Nevertheless, the political unrest, unfavorable economic conditions, and sluggish execution of beneficial programs by governmental and non-governmental entities in the Chittagong Hill Tracts (CHTs) of Bangladesh fail to convince the Indigenous population in that area.

Even after various measures were taken, disputes regarding the degree of agreement implementation have led to mistrust between the government and Parbattya Chattagram Jana Samhati Samiti (United People's Party of the Chittagong Hill Tracts) (Cultural Survival, 2017). The government of Bangladesh states that 48 out of the 72 agreement provisions have been implemented (Cultural Survival, 2017). In contrast, the Parbattya Chattagram Jana Samhati Samiti (United People's Party of the Chittagong Hill Tracts) argues that only 25 provisions have been implemented. The Bangladesh government is working hard to fulfil its promises. For instance, in May 2017, the Local Government Engineering Department (LGED) announced the Second Rural Transport Improvement Project (RTIP-II) under the Tribal Peoples Development Plan (TPDP). The primary objective of this Tribal Peoples Plan (TPDP) is to ensure that the road improvement and other works under the project do not adversely affect the Indigenous peoples,

and that they receive culturally compatible social and economic benefits from the project (Local Government, 2017).

Some participants suggested that the government should take initiatives to preserve other Indigenous languages by publishing more books and teaching them in schools so that language knowledge can be passed down from generation to generation. According to Lewis and Nixon (2023), the use of culturally authentic Indigenous literature can be an excellent means to present accurate information and initiate important conversations about both the past and the future of Indigenous culture. Additionally, the use of culturally authentic textbooks in the classroom is a form of honouring and promoting Indigenous languages and literature (Lewis & Nixon, 2023). However, this Indigenous teaching material scarcity has not only prevailed in Bangladesh but in rich countries like the United States also. The lack of fluent speakers and scarce resources caused by harsh language and education policies imposed by the US federal government throughout the 19th and 20th centuries make teaching Indigenous languages especially challenging (Carjuzaa, 2017). Ng'asike (2019) demonstrated the importance of integrating Indigenous knowledge and mother-tongue instruction into the curriculum for pastoralist schools in Turkana County, Kenya. He identified that the use of the Turkana language in early childhood education failed due to the shortage of teachers and inappropriate materials for instruction that did not reflect pastoralist children's local Indigenous culture and everyday environment. Since teachers found errors in the current books, "culturally authentic and correct information is essential whenever anyone is teaching content related to Indigenous peoples" (Lewis & Nixon, 2023, p. 202). Therefore, it is important to ensure Indigenous texts used in the classroom are current, relevant, and do not reinforce stereotypes. The governments of some countries are giving opportunities to write books in their language to promote their language and culture; for instance, despite residential boarding

schools causing language loss in Indigenous nations, efforts are being made to preserve and revitalize these languages (Lewis et al., 2017). For example, the Chickasaw Nation in the United States makes significant efforts to bring back the language. In a recent development, the nation joined forces with Rosetta Stone, a language-learning software, to safeguard and rejuvenate the language among tribe members. The nation distributed Rosetta Stone to all Chickasaw citizens after developing the software to help them learn the language (Lewis et al., 2017). Therefore, it is necessary for the Government of Bangladesh officials to collaborate with teachers in order to correct any inaccuracies found in the current textbooks and collect information about Indigenous storybooks and other language-oriented reading materials. Government officials and Indigenous language teachers should have good relations to get reliable and authentic information from teachers.

The interviewees agreed unanimously that their relationships with co-workers and department officials were satisfactory. In his article, Kennedy (1998) emphasizes the importance of teachers working together to improve their professional development in in-service teacher education. According to interviewees, there is a strong and positive relationship between assistant teachers, head teachers, and officials from the education department in public primary schools in Bangladesh, with the officials showing their willingness to help them with different matters. Akinyemi et al. (2020) found that trust and positive working relationships among teachers in communities of practice serve as a pathway for professional development. The study revealed that good working relationships enable teachers to assist their colleagues, share their classroom challenges with them, confide in them, and get their assistance. It also found that many teachers feel safe engaging in diverse discussions with colleagues. A friendly and stress-free learning environment supports teachers' professional development that allows for the free

exchange of ideas and fosters strong connections among them (Akinyemi et al., 2020). When trust is high, members feel safe; this encourages open discussion about challenges in their work, such as teaching methods and classroom management.

5.1.4 Logistical Supports

When teaching Indigenous languages, educators in the classroom prefer using resources and examples from their surroundings, and practical experiences students already know. For example, in Canada, it is accepted that teachers are crucial to students' learning, skill acquisition, and achievement in any Aboriginal or non-Aboriginal community (Ministry of Education, 2015). Where schools are within or near Aboriginal communities, teachers are essential to contributing to social well-being and cultural vitality. When it comes to incorporating practical experiences, Aboriginal communities expect the use of the language to be part of any educational experience with an Aboriginal aspect, which involves outdoor trips or field studies in the surrounding Aboriginal community. Additionally, Aboriginal communities promote incorporating simple words and phrases into their practice for greetings, interactions, place references, etc., to revitalize language and culture in local Aboriginal communities. It also promotes acknowledging the local First Nation's culture through images, artifacts, and circle-sharing sessions (Ministry of Education, 2015).

Participants reported a shortage of teachers and classrooms as Indigenous schools are in the remotest region of Bangladesh. Most of the teachers do not show interest to work those areas due to less school as well as living facilities. So, there is always a shortage of teacher in Indigenous populated regions of Bangladesh, particularly, the Chittagong Hill Tracts (CHTs) of Bangladesh. Additionally, most of the primary schools in the CTG region face structural

challenges, lacking adequate school buildings, classrooms, seating, benches, and playgrounds (Chakma, 2024). Indigenous language has been added as an extra subject and taught as an additional class outside regular classes; sometimes, they cancel classes due to teacher and room shortages, and workload pressure. According to reports from the American Academy of Arts & Sciences and the American Councils for International Education, it was revealed that public schools and state education departments need support in finding qualified world language instructors (Teacher Shortages, 2017). Because of the shortage of teachers, students' learning and success could be hindered by larger class sizes, a lack of qualified teachers, and limited resources (Translated by Content, 2023). Advocates argue that teacher shortages must be addressed to ensure these students receive a high-quality education and equal opportunity to succeed.

Participants mentioned not receiving a teaching manual and accentuated the need for written guidance in teaching Indigenous languages. Since Indigenous languages, such as Chakma, are taught similarly to foreign languages like English, the teaching manual for English as a Foreign or Second Language aims to serve as a practical guide for the classroom (Bowman et al., 1989). The teaching manual outlines procedures provides samples of activities and exercises, and offers opportunities for learning various listening, speaking, reading, and writing skills through whole-class, small-group, and individual participation, as well as classroom assessment and preparation for national examinations. The manual covers a variety of teaching situations, including primary and secondary schools, colleges, offices, and schools and workplaces with limited teaching facilities, and those with adequate support, as well as settings based on geography or culture. In addition to practical suggestions for classroom instruction, this book provides background and theoretical information. Bondaruk (2019) researched the significance of educators' practical manuals and found that these manuals help adapt the main information from

course books to cater to the needs and abilities of future EFL teachers. Manuals effectively support educators and the teaching methods they use. Each student's individual characteristics should be considered when selecting and organizing exercises, including their cognitive, emotional, and volitional abilities. Contextualization is a significant advantage found in most teaching manuals. It is important for Indigenous language teaching in Bangladesh as Indigenous textbooks and teaching manuals are published by government authority, not by any Indigenous authority. Manuals also address individual requirements. One additional benefit of manuals is the ability to personalize them. This personalization is valuable because it allows for adapting essential information and materials from textbooks and books to suit the needs and abilities of various students. In Bangladesh, it is more critical as the government started teaching five Indigenous languages, which they are considering expanding into more Indigenous languages. In conclusion, manuals counter the belief that one book can adequately meet all learners' needs (Bondaruk, 2019).

Participants also emphasized the necessity of recruiting expert Indigenous language teachers only to teach Indigenous language classes. The recruitment of skilled teachers is of utmost importance, as evidenced by a study conducted by Blank and Alas (2009), which indicated that students perform better when taught by teachers who have undergone professional development in the subject they teach, as opposed to teachers who have not received such training. Government funding plays a crucial role in recruiting, training, and supporting qualified Indigenous language teachers, which is vital for revitalizing Indigenous languages. For example, the revitalization of Indigenous languages in the United States is a complex, multifaceted effort; therefore, state efforts to support Indigenous language education emphasize funding and Indigenous collaboration (Jones, 2023). In New Mexico, one of the goals of allocating funding is

to recruit and retain Native teachers. Nevada has an initiative to promote native language instruction in schools, which aims to increase the number of native language experts by elevating the importance of language teachers and designating more teachers as subject language experts. Utah supports Indigenous heritage language acquisition and establishes alternative credentialing for Native language teachers. Canada has witnessed a rapid increase in Aboriginal pupils in Saskatchewan over the last decade, which has projected an increase in those numbers into the twenty-first century, thereby presenting various challenges to school boards (McNinch, 1994). He discovered that one of these challenges was ensuring the successful recruitment and retention of enough qualified teachers of Aboriginal ancestry to represent the Indian and Métis populations in schools accurately. This study found that to successfully recruit and retain Aboriginal teachers, it was necessary to acknowledge the context of the broader economic, political, social, and educational changes in which recruitment and retention occurred.

5.1.5 Use of Indigenous Languages

Indigenous languages are not given enough opportunities to be used in day-to-day life.

Receiving their education in their mother tongue is the preferred choice for Indigenous people, as it provides a more stable and durable learning experience compared to learning another language. Nevertheless, there are limited opportunities to utilize Indigenous languages in everyday situations and public events. This hinders their motivation to learn language in an educational setting. The efforts of Indigenous language teachers have been rendered futile since children are unable to use Indigenous languages outside the classroom effectively.

If the Indigenous language is not widely used in daily life, the Indigenous community places less emphasis and priority on Indigenous language education. Regarding importance of

more use of Indigenous language, Hermes et al. (2012) said that a bridge connecting school and home is essential for the development of an Indigenous language revitalization, as academic discourse tends to be detached from the lives of children, families, and their shared localities and experiences. When Indigenous language is frequently used outside the classroom, it opens more significant opportunity to prove to children and community that your Indigenous language has broader significance than just an educational setting (Dunlop et al., 2019). Research has shown that using Indigenous languages in the home is one of the most effective means of revitalizing a language (Dunlop et al., 2019). For instance, the aim of Ojibwe language revitalization in the United States is to foster a meaningful bond between the school, community, and land by employing the Indigenous language in specific and localized ways because "Indigenous immersion schooling, using a school discourse in Ojibwe or any Indigenous language does not necessarily guarantee that languages will then be spoken in homes" (Fishman, 2000, as cited in Hermes et al., 2012, p. 388). Hermes et al. (2012) reveal that just because you are taught secondgrade math in Ojibwe daily, it does not imply that you can then go home and discuss fishing in Ojibwe with your grandparents or parents; this disconnect comes from learning language in socially situated contexts and moving from one discourse (e.g., school) to another (e.g., home).

Since revitalization initiatives conducted in school settings can only serve as a partial remedy for language revitalization, the absence of socially situated contexts for Indigenous language use, schools can only establish a unidirectional connection to the home environment (Hermes et al., 2012). The more people can seamlessly integrate Indigenous language into everyday life, the more comfortably people can use it outside the home (Dunlop et al., 2019) where materials will play a big role. There are two essential steps for creating materials for revitalization - the first step is to produce them in the community, involving heritage language

learners in the process; the second step is to capture language in context instead of artificially constructing it for teaching (Hermes et al., 2012). By incorporating Indigenous language into a broader range of daily activities, people will witness a reduction in the prevalence of English (Dunlop et al., 2019); in the case of Bangladesh, it is Bangla and English languages. The daily using sectors of Indigenous languages in Indigenous populated regions of Bangladesh needs to be boosted, as these languages are limited to Indigenous communities. Increasing the use of some Indigenous languages of some Indigenous communities in Bangladesh is urgent as they have less than 500 Indigenous language speakers: example, Gurkha, Vil, Kharoar, Dalu, Lusai, and Ho (Bangladesh Bureau of Statistics, 2022).

On the other hand, Bangladesh government has taken initiatives to teach five Indigenous languages (Chakma, Marma, Tripura, Garo, and Sadri) which have highest number of language users in Bangladesh whereas the government should focus on almost extincted languages. If we look at the recent Population and Housing Census in Bangladesh which was conducted in 2022 shows that there are 1,650,159 Indigenous people in Bangladesh (Bangladesh Bureau of Statistics, 2022). Among them, the Chakma population is 483,299, which is 29.29% of Bangladesh's Indigenous population (Bangladesh Bureau of Statistics, 2022). If we look at the population of other four languages users (Marma, Tripura, Garo, Saontal) whose languages are taught in primary schools are: Marma (224,261; 13.59%); Tripura (156,57; 9.49%); Garo (76,846; 4.66%); and Saontal (129,049; 7.82%). These five groups alone make up 64.85% of the total Indigenous communities (Bangladesh Bureau of Statistics, 2022). However, all Indigenous communities in Bangladesh, whether they have larger or smaller populations, because of limited interactions with Bangla-speaking individuals, prioritize proficiency in speaking, reading, and writing Bangla over Indigenous languages. Furthermore, they often prioritize learning of English

over Indigenous languages for career development. Overall, in Bangladesh, Indigenous and Bangla-speaking people value Bangla and English languages as they are crucial for success in jobs and businesses. Interestingly, when Indigenous children started learning Indigenous languages at school that time teachers and students realized the value and importance of their language to protect their unique identities.

Participant teachers stated that when they started learning their mother tongue in the academic arena, they realized the significance of Indigenous languages. "Research has shown that simply having teachers conduct instruction in the local mother tongue can also have a positive impact on teachers' ability to tailor instruction to meet students' needs" (Benson, 2005, as cited in Laguarda & Woodward, 2013, p. 455). Mother tongue education also fosters a sense of self-worth and cultural identity in addition to providing academic benefits (Sundararajan, 2024). Delva's (2019) research examines the impact of learning the Creole language and culture at a specific primary school in Haiti, LKM (Lekòl Kominotè Matènwa). The study reveals that a culturally relevant pedagogy, which emphasizes mother-tongue instruction and cultural awareness, plays a crucial role in fostering a strong sense of Haitian identity. The findings demonstrate that the LKM learning model effectively supports the development of Haitian identity in children throughout their primary school years. By establishing connections with their culture and breaking free from the dominance of the French education system, students not only gain knowledge but also become empowered individuals who can contribute to their community; this aligns with Freire's perspective on the practice of freedom. However, the participants expressed that they rely on government or non-government organizations in terms of Indigenous language teaching and learning. It is right which is seen in other countries like Canada where the law indicates the collaboration of Indigenous and non-Indigenous people. Points (a) and (b) of

the Canadian Indigenous Languages Act (S.C. 2019, c. 23) emphasize the importance of supporting and promoting the use of Indigenous languages, including Indigenous sign languages. In addition, they provide support to Indigenous peoples in reclaiming, revitalizing, maintaining, and strengthening their languages (Indigenous Languages Act, 2020). This support includes assessing the status of distinct Indigenous languages, and planning initiatives and activities to restore and maintain fluency in these languages. In addition, they prioritize creating technological tools, educational materials, and permanent records for Indigenous languages. These records include audio and video recordings of fluent speakers, and written materials like dictionaries, lexicons, and grammar. These efforts serve various purposes, including language maintenance and transmission. They also support Indigenous language learning and cultural activities, including language nest programs, mentorship programs, and immersion programs. Their mission aims to enhance the count of individuals speaking Indigenous languages, assist organizations focused on Indigenous languages, and conduct research on Indigenous languages (Indigenous Languages Act, 2020).

Interviewees expressed that all tribes should receive education in their mother tongues, which will alleviate their deprivation and make them proud of their languages. This Indigenous language education right would inspire people to preserve their languages and transmit them from generation to generation because "both language and culture are interdependent pillars on which the identity of a people is maintained, including Indigenous peoples" (Næsborg-Andersen & Khalaf, 2018, p. 79). According to Article 30 of the United Nations Convention on the Rights of Child (CRC), children belonging to Indigenous peoples have the right to enjoy their own culture and use their own language (Næsborg-Andersen & Khalaf, 2018). Article 28 of ILO Convention 169 gives Indigenous children the right to learn to read and write in their own language

(Næsborg-Andersen & Khalaf, 2018). Under international law, at the very least, Indigenous children must have the opportunity to learn to speak, read, and write in an Indigenous language.

Participants said that their language rights should be accompanied by hiring Indigenous language teachers, training these teachers, teaching students, and conducting more research to ensure the survival of the language. In their studies, Kennedy (1998), and Blank and Alas (2009) highlight how in-service teacher education and professional development are crucial in empowering Indigenous teachers to deliver excellent education to government primary-level children, enabling them to excel in their mother tongue skills. The participants said that though the Government of Bangladesh has ensured their language rights through laws, the laws cannot ensure the survival of a language if the authority does not show eagerness to implement those laws because "From Africa to Asia, the Americas to Siberia, Indigenous peoples throughout the world have often seen their languages and cultures disregarded, denigrated or even suppressed" (de Varennes & Kuzborska, 2016, p.281). State authorities in many parts of the world continue to refuse to use Indigenous languages when communicating with Indigenous populations that leads to communication barriers and limited access to social services, healthcare, employment, and advancement opportunities for Indigenous peoples. Furthermore, this disregard for Indigenous languages and cultures contributes to the perception that they are less valuable or irrelevant (de Varennes & Kuzborska, 2016). It is imperative for states to actively support the reclamation and revitalization of Indigenous languages, while acknowledging and addressing the detrimental impact of past colonial policies on language and culture (Higgins & Maguire, 2019).

5.1.6 Teaching and Assessment Strategies

Participant teachers said that since all students cannot read and write proficiently in Indigenous language, they consider the Indigenous language like a foreign language where they follow a slow and easy-going teaching method in the classroom. Richards and Maracle (2002) unveiled in their study that creating a conducive learning environment is key to making Indigenous language learning enjoyable. This conducive learning environment includes a familiar environment on the campus, the presence of elders, and the conversational tone in classes that allows students to focus on language learning without being distracted by anxieties about the classroom context (Richards & Maracle, 2002). Kennedy (2008) stated that when evaluating a program, evaluators focus on structural and organizational elements like contact hours, distribution, in-class visits, and coaching rather than the content they teach students. There may need to be more than the classroom teacher and the school program to achieve the language learning objectives that parents and communities aspire to, particularly for communities focused on revitalizing and preserving their Indigenous language (Francis & Reyhner, 2002a). According to Francis and Reyhner, "People learn about literacy and learn how to read and write once (typically in L1, but often in the case of Indigenous language speakers, in the second language), and apply the various reading and writing skills to another language in which they are proficient or become proficient" (p. 131). Since bilingual children's academic and cognitive development is linked to their ability to read and write in both languages they speak, a strong literacy component, focusing on Indigenous language literacy, should be included in any bilingual program, regardless of the social status or usefulness of writing in a specific Indigenous language.

Because of the absence of a teaching manual, teachers depend on continuous practice and real-life examples to foster a welcoming classroom atmosphere, promoting successful Indigenous

language learning. This amalgamation of continuous practice with real-life examples was successfully used during Mon language teaching at school, where two types of teachers were brought in to make teaching easygoing. In Wat Muang School, the first group comprises teachers, whereas the second group consists of Mon-native speakers residing in Ban Muang, the Mon community. The first group relies on various books, pictures of the Mon's ways of life, and word cards as a medium for teaching the Mon language; the themes of stories are from the Mon's ways of life and culture (Dolphen, 2014). They use pictures of the Mon's ways of life, songs and music, and role-play on Mon stories to encourage Mon learners to appreciate and be proud of their cultures and new vocabulary. The second group is often invited to introduce the Mon language to students in the classroom, as local people know Mon very well and play a critical role in teaching Mon directly to Wat Muang School students. If teachers have problems with Mon vocabulary or grammar, they can ask the native Mon teachers. Local teachers sometimes bring students outdoors to learn the language in real situations, which helps the teachers improve the student's ability to learn the language and culture.

Teachers measure students' progress by questioning them and evaluating their reading and writing skills. Some of them make personal lesson plans to evaluate student progress as there is no learning modules. Pearce and Williams (2013) discovered in their research that standardized language assessments developed for mainstream populations and standard English dialects are not culturally appropriate or diagnostically useful for assessing Indigenous Australian children. Considering that mainstream assessments typically rely on Western concepts, content, and values, Dingwall et al. (2017) found that reliable cognitive assessment of Indigenous Australians is complex because mainstream tests rely on Western concepts, content, and values. Their study examined the validity and reliability of four cognitive assessments. Several previous studies have

recommended that tests be used with (1) content, stimuli and formats that are relevant, familiar, and engaging, (2) a reduced reliance on language, literacy and numeracy, (3) simple instructions, (4) prompts and feedback, (5) are performance-based with demonstrations and practice sessions, and (6) are concise and portable. Indigenous educators in Bangladesh should integrate Indigenous language content with the everyday life and culture of Indigenous communities. Students will feel motivated to engage in classroom activities because of their familiarity with this Indigenous content and cultural connection. As an illustration, a participant mentioned the significant number of Indigenous children who have never experienced city life and have only witnessed trains through television. When a teacher shares a story about a train, students may struggle to relate it to their own lives. The daily society-based learning, knowledge, and experiences of Indigenous language students in Bangladesh mainly revolve around CTG or Indigenous-populated regions. During the interview, someone pointed out many parts of the Chittagong Hill Tracts (CHTs) in Bangladesh where mobile networks are unavailable. Consequently, Indigenous individuals possess limited knowledge and exposure to life beyond the CTG region. Some interviewees suggest that since CTG is the remotest area of Bangladesh and its people have limited interaction with the plain lands of Bangladesh and possess a unique lifestyle compared to other regions, future textbooks for Indigenous language teaching should be more connected to the Indigenous people of that specific region. When teaching materials and classroom activities are relatable to students' daily lives, Indigenous students will be more eager to engage in class. The teaching module will be crucial in guiding teachers in obtaining and utilizing practical and portable examples from the surrounding areas of Chittagong Hill Tracts (CHTs) for conducting hands-on sessions and classroom demonstrations.

5.1.7 Recommendations of Participants

The participants proposed that augmenting the language course with insights into Indigenous languages' word and sentence structures, along with their history, culture, heritage, and traditions, would boost its efficacy. Language and culture cannot be separated because "language destruction promotes cultural disintegration" (Skinner, 1991, p. 1). Moreover, exposing students to their Indigenous language and culture will ignite their enthusiasm, ultimately making the course successful. Native students' academic achievement is affected by several factors, such as cultural differences between home and school, limited understanding of Native culture among school staff, disparities in language and values between teachers and students, a culturally based Native learning style, and a culturally biased test (Skinner, 1991). If students have poor knowledge of their language and culture, they cannot transmit it to the next generation with sufficient Indigenous language knowledge. In an Indigenous context, perpetuation usually entails transmitting Indigenous knowledge to future generations and their subsequent actions in regenerating it (Corntassel & Hardbarger, 2019). It is worth noting that Indigenous knowledge and nationhood are perpetuated daily, often in subtle or unrecognized manners within familiar settings such as homes, ceremonies, and communities. Thus, the active participation and control of the community in education are of the utmost importance to developing curricula that are culturally relevant and responsive to the needs of Native students (Skinner, 1991).

On the other hand, the participants advocated for increased research on Indigenous languages and the reliance on Indigenous language expertise to rectify inaccuracies in published books. For instance, the State Library of New South Wales (SLNSW) has undertaken a project to identify and make accessible materials related to Indigenous Australian languages (Thorpe &

Galassi, 2014). The project focuses on rediscovering Indigenous Languages. It aims to reconnect Indigenous Australian people and the broader Australian community to word lists and vocabularies of Australia's first languages. The project consists of several phases: research, curation, community engagement, and collaboration. These phases aim to connect the project with Indigenous people and other language projects, thereby aiding in the language and cultural revitalization process. However, Many Indigenous communities believe that Westernized approaches, methodology, and perspectives are harmful and exploitative (Hayman et al., 2015, as cited in Teare et al., 2024). They argue that these approaches primarily serve researchers and academics rather than benefiting the communities. To effectively carry out community-based research in community-university research partnerships, a decolonizing process must be undertaken, with guidance and input from Indigenous community perspectives (Simonds & Christopher, 2013, as cited in Teare et al., 2024). The discovery made by researchers suggests that community-university research partnerships between Grandmother's Bay (GMB) and the University of Saskatchewan should prioritize trust and focus on the themes identified by community members of GMB (Teare et al., 2024). Research reveals four main themes: the first theme is the development of trusting relationships that lead to meaningful outcomes for the community; the second theme is the influence of traditions, cultures, and intergenerational knowledge on the research; the third theme is effective communication and language; and finally, the fourth theme is the community's ownership, creative design, and dissemination of the research.

5.2 Recommendations Based on the Results

The limited sample size and the requirement to complete the research within a specific timeframe contribute to confusion regarding the generalizability of phenomenological data

(Giorgi, 2008). Nevertheless, by employing eidetic reduction and imaginative variation, one can intuitively understand the current situation, which can lead to a universal revelation. The research suggests that a longer training period is necessary for Indigenous language teachers in Bangladesh to learn and teach Indigenous languages at public primary schools. Experienced Indigenous language specialists should lead this training, such as Chakma language specialists for the Chakma language. Immediate training should be provided to the teachers who are already teaching Indigenous languages in Bangladesh. The recruitment and training of new teachers for Indigenous languages course in Bangladesh should happen before they are sent to schools in Indigenous populated areas. Improved Indigenous language teaching quality in Bangladesh can be achieved by decreasing the time interval between training programs for Indigenous teachers. This reduction in the time gap empowers teachers to learn Indigenous languages effectively and impart that knowledge to their students.

The results suggest that Indigenous language instruction should be increased beyond two days per week. Teachers in Bangladesh should receive teaching modules to instruct Indigenous government-published language textbooks. School curriculums ought to incorporate the teaching of more Indigenous languages. To guarantee effective teaching, it is essential to supply teachers with classrooms and logistical support, including books, notebooks, and real-life objects. The teaching load of teachers and their official duties should be decreased to properly teach the Indigenous language. In teaching Indigenous languages, teachers should encourage a relaxed and unhurried approach to motivate students to foster a love for Native languages. Teachers should incorporate more real-life examples of Indigenous culture and heritage to make teaching more engaging. The Government of Bangladesh should actively collaborate with Indigenous communities to accomplish these tasks.

The study suggests expanding the use of Indigenous languages in daily life and public events as a way to minimize code-mixing and code-switching. The study suggests modifying the assessment system in Indigenous language courses to encourage both teachers and students to take courses more seriously. To make language courses more engaging and effective, it is important to include themes related to Indigenous community history, culture, heritage, and traditions. The Government of Bangladesh needs to prioritize efforts to decrease the exploitation of Indigenous people and uphold their verbal or pact-based promises made to them on several occasions.

The research results emphasize the need for Indigenous communities to be self-aware and proactive in preserving and transmitting their languages, knowledge, and culture across generations. In order to preserve their language, they need to be motivated to learn it enthusiastically. A committee should be formed to identify any errors in those books. The committee should then present their findings to the Ministry of Education (MoE), the Directorate of Primary Education (DPE), and the local government education officials.

The study findings indicate that Indigenous teachers in Bangladesh have a positive rapport with government officials in the education sector. Indigenous communities should capitalize on their positive relationship with the government to secure their education and social rights. In addition, there should be increased focus on researching Indigenous languages and publishing books to improve Indigenous language literacy in Indigenous communities. The government of Bangladesh, alongside other public and private organizations, senior members of Indigenous communities should provide greater assistance in enabling Indigenous communities in Bangladesh to uncover their written systems and protect their languages.

Chapter 6: Conclusion

The following research questions were addressed in this study.

- 1. What initiatives can the government and other concerned authorities take to train Indigenous teachers to teach textbooks written in their languages?
- 2. To what extent do trained Indigenous teachers contribute to student achievement and retention?

An existential phenomenological approach was employed to investigate the research questions in this qualitative study. Open-ended semi-structured interviews were used in this methodology. The existential phenomenological methodology utilized to answer the research questions was overall satisfactory. The semi-structured interviews provided valuable data that directly addressed the research questions. The results of this study align with certain research findings in the existing literature. For instance, one result of this research supports the idea proposed by Blank and Alas (2009) that teachers' ability to teach specific subjects effectively is greatly influenced by their knowledge and expertise. Another result of this research suggested recruiting new, well-trained, subject-specific, and appropriately trained Chakma language teachers, which conformed to the research results of Kennedy (1998) and Blank and Alas (2009). They discovered that comprehensive, long-term training focused on the intended content is crucial for effective teaching practices.

The methodology was effective in getting high-quality information. However, recruiting participants was the primary obstacle to collecting enough information to answer the research questions effectively. All interview participants were public primary school teachers. They were all from one Indigenous community. Since I had to narrow down my research area and

population, I focused my research on the Chakma community, the largest Indigenous group in Bangladesh. In the Indigenous populated areas of Bangladesh, public primary schools teach the Chakma language. In Bangladesh, while nationality is the same for everyone, people are distinguished based on ethnicity. Approximately 99% of the population is ethnically Bengali, while the remaining 1% is comprised of Indigenous people (Demographics of Bangladesh, 2024). The cultural and historical disparities between the Bengali and Indigenous communities, coupled with the political tensions prior to Bangladesh's independence, posed a significant challenge in persuading 14 interview participants for the interviews. I could not conduct video interviews because the participants held government jobs and were concerned about job security. As a result, I decided to go with audio interviews. It was challenging for you to ensure their anonymity but also needed to include some sort of resolution to that. For example, I ensured their anonymity by using pseudonyms and deliberately omitted mentioning their school names in the thesis.

The mobile network and internet speed in the Chittagong Hill Tract area were unreliable, occasionally forcing me to reschedule the interview. The time difference posed a significant challenge during online interviews; for example, when it was noon in Bangladesh, it was midnight in Canada. Finding a suitable time for a conversation was challenging for both the participants and myself. I had no choice but to wait until the time they preferred for the interviews. As such, I required over two months to interview 14 participants.

It is evident from the study that Indigenous language teachers in Bangladesh lack full proficiency in teaching all language skills of any Indigenous language. This leads to inefficient teaching of Indigenous languages in Bangladesh and hinders students' optimal performance. Indigenous teacher preparation programs must encompass the study of Indigenous languages (Catalano et al., 2022). In addition, it is essential to note that simply relying on paper-based

policy development, providing access to language courses for children, publishing textbooks, and offering sporadic teaching training courses is not enough to lead to successful Indigenous language courses in Bangladesh. This research highlights the need to address several significant issues to ensure the success of Indigenous language courses for teachers and students. These issues include: a) improving the Indigenous language literacy of teachers to make them proficient in teaching Indigenous languages as soon as possible, b) implementing long-term training programs covering language literacy and Indigenous language teaching methods, c) providing teachers with teaching modules specifically designed for Indigenous languages, d) increasing class time and providing educational logistic support, e) promoting the use of Indigenous languages, f) recruiting new teachers solely to teach Indigenous languages, g) encouraging teachers to take Indigenous language education seriously, h) encouraging Indigenous communities to take proactive initiatives to ensure the education of Indigenous languages for all Indigenous communities in Bangladesh, i) acknowledging and addressing the deprivation and exploitation faced by Indigenous communities, and j) adding more Indigenous communityrelated issues like history, culture, and traditions to the textbooks and solve errors in already published books.

It is necessary for all levels of organizations of the Government of Bangladesh, like the Ministry of Education (MoE), the Directorate of Primary Education (DPE), and the Primary Teacher's Training Institutes (PTIs), to understand the importance and benefits of Indigenous language education for socio-cultural and economic developments of Indigenous populated areas in the country. Since Indigenous teachers teach Indigenous languages in the most remote corners of Bangladesh, adequate funding is necessary to support these teachers and solve their problems for educational development in those regions. Therefore, collaboration between the government,

non-government organizations (NGOs), international organizations, and Indigenous communities is crucial for advancing high-quality Indigenous language education and solve the financial, social, political problems of Indigenous people of Bangladesh. This collective effort will yield significant benefits for Indigenous regions in education, socio-cultural and economic aspects.

This study was a unique and enriching experience for me, both academically and personally. I have learned important information about the education system in the Chittagong Hill Tracts of Bangladesh, specifically regarding Indigenous language teachers' difficulty to teach Indigenous languages in that remote region. I have found multiple obstacles that must be tackled to improve the quality of Indigenous language teachers and Indigenous language education in Bangladesh. I also discovered how Indigenous education systems operate worldwide, including training Indigenous language teachers and addressing education-related challenges. Prior to gathering my research, I held assumptions about the efficiency of Indigenous language teachers and government policies in Bangladesh regarding Indigenous language learning. Through data collection and analysis, I gained insight into Indigenous teachers' perspectives on the Indigenous language courses they teach in schools. Participants shared their views on government efforts for Indigenous education in Bangladesh. Surprisingly, all teachers expressed their support and gratitude towards the Government of Bangladesh for including Indigenous languages in the curriculum. I had expected teachers to criticize the government for the current tense situation in Chittagong Hill Tracts (CHTs). Nevertheless, the study findings indicated that interviewees recommended expediting the implementation process of government initiatives and fulfilling promises made in various policy documents concerning Indigenous language learning, Indigenous language protection, and the rights of Indigenous people in order to enhance the standard of Indigenous language learning initiatives.

References

- Adekola, O. A. (2007). Language, literacy and learning in primary schools: Implications for teacher development programs in Nigeria. World Bank.
- Akinyemi, A. F., Rembe, S., & Nkonki, V. (2020). Trust and positive working relationships among teachers in communities of practice as an avenue for professional development. *Education Sciences*, 10(5), 136. https://doi.org/10.3390/educsci10050136
- Alcaraz-Mármol, G. (2018). Trained and non-trained language teachers on CLIL methodology:

 Teachers' facts and opinions about the CLIL approach in the primary education context in

 Spain. Latin American Journal of Content & Language Integrated Learning, 11(1),

 39–64. https://doi.org/10.5294/laclil.2018.11.1.3
- Alencastre, M., & Kawai'ae'a, K. (2017). Distinctive pathways of preparing Hawaiian language medium-immersion educators. *Promising Practices in Indigenous Teacher Education*, 131–147. https://doi.org/10.1007/978-981-10-6400-5_10
- Althauser, K. (2015). Job-embedded professional development: Its impact on teacher self-efficacy and student performance. *Teacher Development*, *19*(2), 210–225. https://doi.org/10.1080/13664530.2015.1011346
- Anam, M. (2024, March 21). A mockery of education in Indigenous languages. *The Daily Star*. https://www.thedailystar.net/opinion/editorial/news/mockery-education-Indigenous-languages-3571706.

- Anthony-Stevens, V., Mahfouz, J., & Bisbee, Y. (2020). Indigenous teacher education is nation building: Reflections of capacity building and capacity strengthening in Idaho. *Journal of School Leadership*, 30(6), 541–564. https://doi.org/10.1177/1052684620951722
- Ball, D. L., & Feiman-Nemser, S. (1988). Using textbooks and teachers' guides: A dilemma for beginning teachers and teacher educators. *Curriculum Inquiry*, 18(4), 401–423. https://doi.org/10.1080/03626784.1988.11076050
- Bangladesh Bureau of Educational Information and Statistics [BANBEIS]. (2022). *Bangladesh education statistics 2021* [Dataset].

 https://banbeis.portal.gov.bd/sites/default/files/files/banbeis.portal.gov.bd/files/95b55c7a_0 bdb_4e2d_8d00_e08b6a44d7cb/edu%20stat%202021.pdf
- Bangladesh Bureau of Statistics. (2022). Population & housing census 2022: Preliminary report. https://bbs.portal.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/b343a8b4_956b_45 ca_872f_4cf9b2f1a6e0/2023-09-27-09-50-a3672cdf61961a45347ab8660a3109b6.pdf.
- Begum, K. (2021, June 17). Pre-primary education. *Banglapedia*. https://en.banglapedia.org/index.php/Pre-primary_Education
- Berg, B. L. (2001). *Qualitative research methods for the social sciences* (4th ed.). Allyn and Bacon.
- Bergier, A., & Anderson, K. (2021). "Step into learning when ready": Towards a strength-based approach to Indigenous language education in a university setting. *International Journal of Indigenous Education Scholarship*, *1*(2021), 12–39.

 https://doi.org/10.18357/wj161202120273

- Bhuiyan, A. A. M. (2015). Teaching English to young learners in rural and urban areas of Bangladesh. *The New English Teacher*, *9*(1) Retrieved from https://qe2a-proxy.mun.ca/login?url=https://www.proquest.com/scholarly-journals/teaching-english-young-learners-rural-urban-areas/docview/2384114182/se-2
- Bishop, M., & Durksen, T. L. (2020). What are the personal attributes a teacher needs to engage Indigenous students effectively in the learning process? Re-viewing the literature.

 Educational Research, 62(2), 181–198. https://doi.org/10.1080/00131881.2020.1755334
- Bishop, R. (2010). Effective teaching for Indigenous and minoritized students. *Social and Behavioral Sciences*, 7, 57–62. https://doi.org/10.1016/j.sbspro.2010.10.009
- Blank, R. K., & Alas, N. de las. (2009, June). Effects of teacher professional development on gains in student achievement: How meta analysis provides scientific evidence useful to education leaders. Paper presented at the 2009 Conference for the Society of Research on Education Effectiveness.
- Blömeke, S., Jentsch, A., Ross, N., Kaiser, G., & König, J. (2022). Opening up the black box:

 Teacher competence, instructional quality, and students' learning progress. *Learning and Instruction*, 79, 101600. https://doi.org/10.1016/j.learninstruc.2022.101600
- Bogdan, R. C., & Biklen, S. K. (2003). *Qualitative research for education: An introduction to theory and methods* (4th ed.). London.
- Bondaruk, Y. (2019). Role of manuals in teaching English pronunciation and lexis of future EFL teachers. *Comparative Education*, (2), 59–69. https://doi.org/10.31499/2306-5532.2.2019.182704

- Bowman, B., Burkart, G., & Robson, B. (1989). (working paper). *TEFL/TESL Teaching English as a Foreign or Second Language* (pp. 1–222). Washington DC, Washington: Center for Applied Linguistics. Retrieved July 22, 2024, from https://files.eric.ed.gov/fulltext/ED313902.pdf.
- Bressoux, P. (1996). The effects of teachers' training on pupils' achievement: The case of elementary schools in France. *School Effectiveness and School Improvement*, 7(3), 252–279. https://doi.org/10.1080/0924345960070303
- Brumfit, C. (1979). Integrating theory and practice. In S. Holden (Ed.), *Teacher training* (pp. 1–18). Modern English Publications Limited.
- Burgess, C., Tennent, C., Vass, G., Guenther, J., Lowe, K., & Moodie, N. (2019). A systematic review of pedagogies that support, engage and improve the educational outcomes of Aboriginal students. *The Australian Educational Researcher*, 46(2), 297–318. https://doi.org/10.1007/s13384-019-00315-5
- Carjuzaa, J. (2017). Revitalizing Indigenous languages, cultures, and histories in Montana, across the United States and around the Globe. *Cogent Education*, *4*(1), 1371822. https://doi.org/10.1080/2331186x.2017.1371822
- Catalano, T., Palala Martinez, H., & Moran, D. (2022). 'I see you': Indigenous language study in a bilingual teacher education program. *International Journal of Bilingual Education and Bilingualism*, 25(10), 3631–3643. https://doi.org/10.1080/13670050.2022.2072169

- Cekiso, M., Meyiwa, T., & Mashige, M. C. (2019). Foundation phase teachers' experiences with instruction in the mother tongue in the Eastern Cape. *South African Journal of Childhood Education*, *9*(1). https://doi.org/10.4102/sajce.v9i1.658
- Chakma, E. (2024). Challenges of Indigenous Children's primary education in the Chittagong
 Hill tracts of Bangladesh: Insights from individuals working in education. *International Journal of Educational Management and Development Studies*, *5*(1), 148–171.

 https://doi.org/10.53378/353050
- Chakma, P., & Chakma, B. (2022, April). Bangladesh. In D. Mamo (Ed.), *The Indigenous world* 2022 (pp. 165-174). International Work Group for Indigenous Affairs.
- Champagne, D. (2011). Contemporary education. In D. Vinding (Ed.), *State of the world's Indigenous peoples* (pp. 129–151). United Nations.
- Chittagong Hill Tracts. (2024, June 03). *Chittagong Hill Tracts*.

 In *Wikipedia*. https://en.wikipedia.org/wiki/Chittagong_Hill_Tracts
- Chittagong Hill Tracts. (2021, June 18). In *Banglapedia: National encyclopedia of Bangladesh*. https://en.banglapedia.org/index.php/Chittagong_Hill_Tracts.
- Coates, T., & Leech-Ngo, P. (2016). Overview of the benefits of First Nations language immersion: Wise practices for Indigenous language immersion, and provisions for supporting immersion education in the First Nations Control of First Nations Education Act. *Canadian Journal of Children's Rights*, *3*(1), 46–67. https://doi.org/10.22215/cjcr.v3i1.76

- Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education* (6th ed.). Routledge.
- Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (8th ed.). Routledge.
- Corntassel, J., & Hardbarger, T. (2019). Educate to perpetuate: Land-based pedagogies and community resurgence. *International Review of Education*, *65*(1), 87–116. https://doi.org/10.1007/s11159-018-9759-1
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches*. Sage Publications.
- Creswell, J. W. (1998). Qualitative inquiry and research design. Sage Publications.
- Cultural Survival. (2017, January 1). International Covenant on Civil and Political Rights

 alternative report submission: Violations of Indigenous peoples' rights in Bangladesh.

 European Country of Origin Information Network.

 https://www.ecoi.net/en/document/1398884.html
- Cummins, P., Chakma, A. K., & Rahman, S. M. H. (2012, December 21). *Strengthening basic education in the Chittagong Hill Tracts Phase II*. Unrepresented Nations and Peoples Organization. https://info.undp.org/docs/pdc/Documents/BGD/2012%20Mid-Term%20Review%20Report_Strengthening%20Basic%20Education%20in%20the%20CH T.pdf

- Damnet, A. (2021). Enhancing pre-service EFL teachers' teaching skill through teacher training:

 A case study of a university in Thailand. *Advances in Language and Literary*Studies, 12(3), 1–11. https://doi.org/10.7575/aiac.alls.v.12n.3.p.1
- Darling-Hammond, L. (2000). Teacher quality and student achievement: A review of state policy evidence. *Education Policy Analysis Archives*, 8(1), 1–44. https://doi.org/10.14507/epaa.v8n1.2000
- Delva, R.-J. (2019). "Kreyòl Pale, Kreyòl Konprann": Haitian identity and Creole mother-tongue learning in Matènwa, Haiti. *Journal of Haitian Studies*, *25*(1), 92–125. https://doi.org/10.1353/jhs.2019.0003
- Demographics of Bangladesh. (2024, May 31). *Demographics of Bangladesh*. In *Wikipedia*. https://en.wikipedia.org/wiki/Demographics_of_Bangladesh
- De Oliveira, M. a. M. (2020). Knowledge networks in the training of Indigenous mathematics teacher. In N. Rosa & C. C. Oliveira, (Eds.), *Etnomatematics in action: Mathematical practice in Brazilian Indigenous, urban and Afro Communities* (pp. 91–109). *Springer* https://doi.org/10.1007/978-3-030-49172-7_6
- Deshwara, M. (2022, February 1). 5 years on, Indigenous language books initiative yet to progress. *The Daily Star*. Retrieved May 23, 2024, from https://www.thedailystar.net/news/bangladesh/news/the-books-are-there-wholl-teach-them-2951776.

- de Varennes, F., & Kuzborska, E. (2016). Language, rights, and opportunities: The role of language in the inclusion and exclusion of Indigenous Peoples. *International Journal on Minority and Group Rights*, 23(3), 281–305. https://doi.org/10.1163/15718115-02303004
- Dey, S., Hossain, N., & Nanjeeba, L. (2024, November 15). *In Bangladesh: Preserving Indigenous culture through storytelling*. The Asia Foundation.

 https://asiafoundation.org/2023/11/15/in-bangladesh-preserving-Indigenous-culture-through-storytelling/
- Dhamai, B. M. (2014). An overview of Indigenous Peoples in Bangladesh. In M. S. Chowdhury (Ed.), Survival under threat: Human rights situation of Indigenous Peoples in Bangladesh (pp. 10-26). AIPP Printing Press.
- Dingwall, K. M., Gray, A. O., McCarthy, A. R., Delima, J. F., & Bowden, S. C. (2017).

 Exploring the reliability and acceptability of cognitive tests for Indigenous Australians: A pilot study. *BMC Psychology*, *5*(1), 1–16. https://doi.org/10.1186/s40359-017-0195-y
- Directorate of Primary Education Peoples Republic of Bangladesh. (2010). *Indigenous Peoples Framework: Primary Education Sector Development: Program 3 (PEDP III): ADB TA NO. 7169-BAN.* https://www.adb.org/sites/default/files/project-document/62218/42122-01-ban-ippf.pdf
- Directorate of Primary Education Peoples Republic of Bangladesh.. (2011). Social Management Framework (Draft): Bangladesh: Third Primary Education Development Support Program (PEDP III). In *Ministry of Primary and Mass Education*. Government of the People's Republic of Bangladesh.

- http://oldweb.lged.gov.bd/uploadeddocument/PublicInformationFileGallery/9/Social%20 Management%20Framework.pdf
- Directorate of Primary Education Peoples Republic of Bangladesh. (2017, June 4). *Directorate of Primary Education*. https://www.dpe.gov.bd/site/page/3b0ae771-bc9c-42dd-a113-5ec647c99ede/%E0%A6%AA%E0%A7%8D%E0%A6%B0%E0%A6%A5%E0%A6%AE-%E0%A6%B6%E0%A7%8D%E0%A6%B0%E0%A7%87%E0%A6%A3%E0%A6%BF
- Directorate of Primary Education Peoples Republic of Bangladesh.. (2019, January). *The Social Management Framework (SMF): Fourth Primary Education Development Program (PEDP 4)*.

 https://dpe.portal.gov.bd/sites/default/files/files/dpe.portal.gov.bd/publications/4321a093_51d5_4b1d_a3c3_842865746493/The%20Social%20Management%20Framework%20(SMF)%20(1).pdf
- Dolphen, I. (2014). Learning language and culture through Indigenous Knowledge: A case study of teaching a minority language (MON) in a majority language (Thai) school setting.

 Social and Behavioral Sciences, 134, 166–175.

 https://doi.org/10.1016/j.sbspro.2014.04.236
- Dunlop, B., Gessner, S., & Parker, A. (2019). *Language for life: Nourishing Indigenous languages in the home*. First Peoples' Cultural Council. https://fpcc.ca/wp-content/uploads/2020/08/FPCC-LanguageforLife-190318-WEB.pdf
- Edgar, T. W., & Manz, D. O. (2017). *Research methods for cyber security*. https://doi.org/10.1016/b978-0-12-805349-2.00004-2

- Elliott, V. (2018). Thinking about the coding process in qualitative data analysis. *The Qualitative Report*. https://doi.org/10.46743/2160-3715/2018.3560
- Farrell, T. S. (2012). Novice-service language teacher development: Bridging the gap between preservice and in-service education and development. *TESOL Quarterly*, 46(3), 435–449. https://doi.org/10.1002/tesq.36
- Fauth, B., Decristan, J., Decker, A.-T., Büttner, G., Hardy, I., Klieme, E., & Kunter, M. (2019).

 The effects of teacher competence on student outcomes in elementary science education:

 The mediating role of teaching quality. *Teaching and Teacher Education*, 86, 102882.

 https://doi.org/10.1016/j.tate.2019.102882
- Francis, N., & Reyhner, J. A. (2002a). Biliteracy: Teaching reading and writing in the Indigenous language. In N. H. Hornberger & C. Baker (Eds.), *Language and literacy teaching for Indigenous education: A bilingual approach* (pp. 131–159). Multilingual Matters.
- Francis, N., & Reyhner, J. A. (2002b). Prospects for learning and teaching Indigenous languages.

 In N. H. Hornberger & C. Baker (Eds.), *Language and literacy teaching for Indigenous education: A bilingual approach* (pp. 3–19). Multilingual Matters.
- Giorgi, A. (2008). Difficulties encountered in the application of the phenomenological method in the social sciences. *Indo-Pacific Journal of Phenomenology*, 8(1), 1–9. https://doi.org/10.1080/20797222.2008.11433956
- Goldhaber, D., & Anthony, E. (2005). Can teacher quality be effectively assessed? National Board Certification as a signal of effective teaching. *PsycEXTRA Dataset*. https://doi.org/10.1037/e723092011-001
- Goldhaber, D., Liddle, S., & Theobald, R. (2013). The gateway to the profession: Assessing teacher preparation programs based on student achievement. *Economics of Education Review*, *34*, 29–44. https://doi.org/10.1016/j.econedurev.2013.01.011

- Gomes, A. M., de Miranda, S. A., & de L. Tavares, M. (2020). Between territories and knowledge practices. challenges with Indigenous teacher training in Brazil. *Soziale Passagen*, 12(2), 271–289. https://doi.org/10.1007/s12592-020-00364-z
- Groenewald, T. (2004). A phenomenological research design illustrated. *International Journal of Qualitative Methods*, *3*(1), 42–55. https://doi.org/10.1177/160940690400300104
- Government of Canada. (2022, July 26). *The Government of Canada supports Indigenous-led efforts to revitalize Indigenous languages*. https://www.canada.ca/en/canadian-heritage/news/2022/07/the-government-of-canada-supports-Indigenous-led-efforts-to-revitalize-Indigenous-languages.html
- Government of Canada. (2024, January 19). *Education for reconciliation*. https://www.rcaanc-cirnac.gc.ca/eng/1524504501233/1557513602139
- Guilherme, A., & Hüttner, É. (2015). Exploring the new challenges for Indigenous education in Brazil: Some lessons from Ticuna schools. *International Review of Education*, *61*(4), 481–501. https://doi.org/10.1007/s11159-015-9503-z
- Haig-Brown, C., & Hoskins, T. K. (2019). Indigenous teacher education in Canada and Aotearoa
 New Zealand. Oxford Research Encyclopedia of Education.
 https://doi.org/10.1093/acrefore/9780190264093.013.746
- Holloway, J. H. (2006). Connecting professional development to student learning gains. *Science Educator*, *15*(1), 37–43. http://files.eric.ed.gov/fulltext/EJ773253.pdf
- Harris, D. N., & Sass, T. R. (2011). Teacher training, teacher quality and student achievement.

 *Journal of Public Economics, 95(7-8), 798–812.

 https://doi.org/10.1016/j.jpubeco.2010.11.009

- Hermes, M., Bang, M., & Marin, A. (2012). Designing Indigenous language revitalization. *Harvard Educational Review*, 82(3), 381–402. https://doi.org/10.17763/haer.82.3.q8117w861241871j
- Higgins, N., & Maguire, G. (2019). Language, Indigenous Peoples, and the right to self-determination. *New England Journal of Public Policy*, *31*(2), 1–9. https://doi.org/https://scholarworks.umb.edu/cgi/viewcontent.cgi?article=1758&context=nejpp
- Hohepa, M., & Hawera, N. (2019). Preparing teachers for Indigenous language immersion classrooms. In H. Tomlins-Jahnke, S. D. Styres, S. Lilley, & D. Zinga (Eds.), *Indigenous education: New directions in theory and practice* (pp. 255–276). University of Alberta Press.
- Horn, M. (n.d.). *The use of qualitative interviews in evaluation*. https://ag.arizona.edu/sfcs/cyfernet/cyfar/Intervu5.htm
- International Labour Organization. (2017, March 19). Indigenous people need help to secure government jobs in Bangladesh.

 https://www.ilo.org/dhaka/Informationresources/Meetingdocuments/WCMS_547867/lang
 --en/index.htm
- International Work Group for Indigenous Affairs. (n.d.). *Indigenous Peoples in Bangladesh*. https://www.iwgia.org/en/bangladesh.html
- Islam, M. R. (2017). Equity and diversity for primary school Indigenous children in Bangladesh
 [Unpublished doctoral dissertation,. Flinders University].

 https://flex.flinders.edu.au/file/e01a3ba8-9c15-441e-9efa-

- ecc3bdab067e/1/Rabiul_PhD%20thesis%20_%20_digital%20copy_FU%20Library%20% 281%29.pdf.
- Islam, M. R., & Wadham, B. (2016). Equality and diversity in Bangladesh's primary education: Struggling Indigenous education. *International Journal of Educational and Pedagogical Sciences*, 10(4), 1183–1187.
- Islam, R., Schech, S., & Saikia, U. (2022). Violent peace: Community relations in the Chittagong

 Hill tracts (CHT) in Bangladesh after the Peace Accord. *Conflict, Security & Conflict, Security & C*
- Jeschke, C., Kuhn, C., Heinze, A., Zlatkin-Troitschanskaia, O., Saas, H., & Lindmeier, A. M. (2021). Teachers' ability to apply their subject-specific knowledge in instructional settings A qualitative comparative study in the subjects mathematics and economics. *Frontiers in Education*, 6. https://doi.org/10.3389/feduc.2021.683962
- Jones, B. (2023, February 24). Supporting Indigenous heritage language acquisition through funding and tribal advocacy. Center for Standards, Assessment, & Accountability. https://csaa.wested.org/supporting-Indigenous-heritage-language-acquisition-through-funding-and-tribal-advocacy/
- Jones, P., & Chen, H. (2012). Teachers' knowledge about language: Issues of pedagogy and expertise. *The Australian Journal of Language and Literacy*, *35*(2), 147–172. https://doi.org/10.1007/bf03651880
- Hamilton-Ekeke, J-T, & Dorgu, E. T.. (2015). Curriculum and Indigenous education for technological advancement. *British Journal of Education*, *3*(11), 32–39.

- https://www.eajournals.org/wp-content/uploads/Curriculum-and-Indigenous-Education-for-Technological-Advancement.pdf.
- Kavanagh, B. (1999). *The aboriginal language program planning workbook*. First Nations Education Steering Committee.

 https://www.fnesc.ca/publications/pdf/language%20workbook2.pdf
- Kennedy, M. (1998). Form and substance in inservice teacher education. National Institute for Science Education. https://eric.ed.gov/?id=ED472719
- Khagrachhari District (Geography). (2024, June 03). *Khagrachhari District (Geography)*. In https://en.wikipedia.org/wiki/Khagrachhari District
- Kilbourn, B. (2006). The qualitative doctoral dissertation proposal. *Teachers College Record: The Voice of Scholarship in Education*, 108(4), 529–576. https://doi.org/10.1111/j.1467-9620.2006.00660.x
- King, L., & Schielmann, S. (2004). *The challenge of Indigenous education: Practice and perspectives*. UNESCO.
- Kitchen, J., & Hodson, J. (2013). Enhancing conditions for aboriginal learners in higher education: The experiences of Nishnawbe Aski teacher candidates in a teacher education program. *Brock Education Journal*, *23*(1), 119–134. https://doi.org/10.26522/brocked.v23i1.355
- Köse, A., & Uzun, M. B. (2018). Prospective teachers' views on effective teacher characteristics and their occupational self-efficacy perceptions in terms of these characteristics.

- Educational Process: International Journal, 7(1), 60–73. https://doi.org/10.22521/edupij.2018.71.5
- Korne, H. D. (2013). Allocating authority and policing competency: Indigenous language teacher certification in the United States. *Working Papers in Educational Linguistics*, *28*(1), 24–41. https://doi.org/https://wpel.gse.upenn.edu/sites/default/files/HDK%20WPEL%2028(1)%20 final.pdf
- Labone, E., Cavanagh, P., & Long, J. (2014). Critical design features of pre-service education programs to enhance teacher capacity to effectively work in schools with Indigenous students. *The Australian Journal of Indigenous Education*, 43(2), 121–133. https://doi.org/10.1017/jie.2014.22
- Laguarda, A. I., & Woodward, W. P. (2013). They own this: Mother tongue instruction for Indigenous kuku children in Southern Sudan. *School Psychology International*, *34*(4), 453–469. https://doi.org/10.1177/0143034312446893
- Landertinger, L., Tessaro, D., & Restoule, J.-P. (2021). "We have to get more teachers to help our kids": Recruitment and retention strategies for teacher education programs to increase the number of Indigenous teachers in Canada and abroad. *Journal of Global Education and Research*, *5*(1), 36–53. https://doi.org/10.5038/2577-509x.5.1.1066
- Le Compte, M. D., & Preissle, J. (1993). Ethnography and qualitative design in educational research. Academic Press.
- Lewis, K., & Nixon, S. B. (2023). Honoring Indigenous languages through literature. *Language Arts*, 100(3), 192–205. https://doi.org/10.58680/la202332262

- Lewis, K., Shirt, M., & Sylvestre, J. (2017). Looking at the evolution of University of Nuhelot'Ine thaiyots'i NISTAMÊYIMÂKANAK Blue Quills Language programmes. *Promising Practices in Indigenous Teacher Education*, 237–248. https://doi.org/10.1007/978-981-10-6400-5 17
- Lightbown, P. M., & Spada, N. (2019). Teaching and learning L2 in the classroom: It's about time. *Language Teaching*, 53(4), 422–432. https://doi.org/10.1017/s0261444819000454
- Lingam, G. I. (2022). Teaching and learning of Indigenous Languages in the pacific: Are we doing enough in teacher education? *Asia-Pacific Journal of Teacher Education*, 50(5), 447–452. https://doi.org/10.1080/1359866x.2022.2135487
- Masta, S. (2022). Theory-to-practice: Researching Indigenous education in the United States.

 *International Journal of Multicultural Education, 24(1), 1–15.

 https://doi.org/10.18251/ijme.v24i1.1937
- McClenny, T. L. (2020). Use of phenomenography in nursing education research. *International Journal of Nursing Education Scholarship*, 17(1), 1–15. https://doi.org/10.1515/ijnes-2020-0009
- McDonald, R.-A. J. (2011). First Nations languages and culture impacts on literacy and student achievement outcomes. Canadian Electronic Library. https://canadacommons-ca.qe2a-proxy.mun.ca/artifacts/1196318/first-nations-languages-and-culture-impacts-on-literacy-and-student-achievement-outcomes/1749442/
- McIvor, O., & Ball, J. (2019). Language-in-education policies and Indigenous language revitalization efforts in Canada: Considerations for non-dominant language education in

- the Global South. *Forum for International Research in Education*, *5*(3), 12–28. https://doi.org/10.32865/fire201953174
- McNinch, J. (1994). (rep.). *The recruitment and retention of Aboriginal teachers in Saskatchewan schools*. https://saskschoolboards.ca/wp-content/uploads/94-10.htm.
- Miller, L. (2023). A peace education model for aligning the aim of Indigenous people for self-determination with the socio-political aims of government: Bangladesh context. *The Oriental Anthropologist*, *23*(1), 37–53. https://doi.org/10.1177/0972558x231158794
- Mitchell, C. (2017). Teacher shortages hinder foreign-language instruction. *Education Week*, *36*, 1-16.
- Ontario Ministry of Education. (2001a). *The Ontario curriculum grades 1-8*. https://www.edu.gov.on.ca/eng/curriculum/elementary/nativelang18curr.pdf
- Ministry of Education of Government of the People's Republic of Bangladesh. (2011, January).

 *National Education Policy 2010. Ministry of Education.

 https://moedu.gov.bd/site/page/318a22d2-b400-48a7-8222-303ab11cc205/National-Education-Policy-2010-
- British Columbia Ministry of Education. (2015). *Aboriginal worldviews and perspectives in the classroom*. Government of British Columbia.

 https://www2.gov.bc.ca/assets/gov/education/administration/kindergarten-to-grade-12/Indigenous-education/awp moving forward.pdf

- Murshed, S. M., & Imtiaz, M. (2020). Inclusive practices in Bangladesh: Multilingual education for Indigenous children. In L. Claiborne & V. Balakrishnan (Eds.), *Moving towards inclusive education* (pp. 159–174). Brill.
- Næsborg-Andersen, A., & Khalaf, B. (2018). The right of Indigenous Peoples to education in their own language Greenlanders in Denmark and in Greenland. *The Yearbook of Polar Law Online*, *9*(1), 79–108. https://doi.org/10.1163/22116427_009010005
- Nakata, N. M. (2023). Indigenous languages & education: Do we have the right agenda? *The Australian Educational Researcher*, *51*, 719–732. https://doi.org/10.1007/s13384-023-00620-0
- National Curriculum and Textbook Board. (2023). *Chakma Amar Boi Class 2*. https://drive.google.com/file/d/1vuJs9bGFD1VkZqsacJpRGA611bTLwO4-/view
- Ng'asike, J. T. (2019). Indigenous knowledge practices for sustainable lifelong education in pastoralist communities of Kenya. *International Review of Education*, *65*(1), 19–46. https://doi.org/10.1007/s11159-019-09767-4
- Northern Territory Board of Studies. (2016). *Keeping Indigenous languages and cultures strong:*A plan for the teaching and learning of Indigenous languages and cultures in Northern

 Territory schools. Northern Territory Government.

 https://education.nt.gov.au/__data/assets/pdf_file/0012/413202/Policy_Keeping-Indigenous-Languages-and-Cultures-Strong-Document_web_updated.pdf
- Organization for Economic Co-operation and Development [OECD]. (2005). *Teachers matter:***Attracting, developing and retaining effective teachers. OECD Publishing.

 https://doi.org/10.1787/9789264018044-en

- Orchard, J., & Winch, C. (2015). What training do teachers need?: Why theory is necessary to good teaching. *Impact*, 2015(22), 1–43. https://doi.org/10.1111/2048-416x.2015.12002.x
- Pandin, M. G. R., & Yanto, E. S. (2023). The what and how of existential phenomenological research. *The Qualitative Report*. https://doi.org/10.46743/2160-3715/2023.6268
- Pantić, N., & Wubbels, T. (2010). Teacher competencies as a basis for teacher education Views of Serbian teachers and teacher educators. *Teaching and Teacher Education*, *26*(3), 694–703. https://doi.org/10.1016/j.tate.2009.10.005
- Parker, C., Scott, S., & Geddes, A. (2019). Snowball sampling. In P. Atkinson, S. Delamont, A. Cernat, J. W. Sakshaug, & R. A. Williams (Eds.), *SAGE research methods foundations* (pp. 824-824). Sage. https://doi.org/10.4135/9781526421036831710
- Pearce, W. M., & Williams, C. (2013). The cultural appropriateness and diagnostic usefulness of standardized language assessments for Indigenous Australian children. *International Journal of Speech-Language Pathology*, *15*(4), 429–440. https://doi.org/10.3109/17549507.2012.762043
- Pérez, S. J. (2018). The contribution of post-colonial theory to intercultural bilingual education in
 Peru: An Indigenous teacher training programme. In T. Skutnabb-Kangas, R. Phillipson,
 A. K. Mohanty, & M. Panda (Eds.), *Social justice through multilingual education* (pp. 201–219). Multilingual Matters. https://doi.org/10.21832/9781847691910-014.
- Poitras Pratt, Y., & Hanson, A. J. (2020). Indigenous instructors' perspectives on pre-service teacher education: Poetic responses to difficult learning and teaching. *Race Ethnicity and Education*, *25*(6), 855–873. https://doi.org/10.1080/13613324.2020.1718085
- Qu, S. Q., & Dumay, J. (2011). The qualitative research interview. *Qualitative Research in Accounting & Management*, 8(3), 238–264. https://doi.org/10.1108/11766091111162070

- Raina, V. K. (2002). Teacher education in India: Status, problems and prospects. In E. Thomas (Ed.), *World yearbook of education 2002- Teacher education: Dilemmas and prospects* (pp. 239–249). Kogan Page.
- Restoule, J.-P., & Nardozi, A. (2019). Exploring teacher candidate to Indigenous content in a teacher education program. In H. Tomlins-Jahnke, S. D. Styres, S. Lilley, & D. Zinga (Eds.), *Indigenous education: New directions in theory and practice* (pp. 311–338). University of Alberta Press.
- Richards, M., & Maracle, D. (2002). An intensive native language program for adults: The instructors' perspective. *McGill Journal of Education*, *37*(3), 371–375. https://doi.org/https://www.proquest.com/docview/202694572
- Roy, S., Huq, S., & Rob, A. B. (2020). Faith and education in Bangladesh: A review of the contemporary landscape and challenges. *International Journal of Educational Development*, 79, 1–19. https://doi.org/10.1016/j.ijedudev.2020.102290
- Sancassani, P. (2023). The effect of teacher subject-specific qualifications on student science achievement. *Labour Economics*, 80, 102309. https://doi.org/10.1016/j.labeco.2022.102309
- Sarker, P., & Davey, G. (2009). Exclusion of Indigenous children from primary education in the Rajshahi Division of Northwestern Bangladesh. *International Journal of Inclusive Education*, *13*(1), 1–11. https://doi.org/10.1080/13603110701201775
- Sedgwick, P. (2013). Snowball sampling. BMJ, 347. https://doi.org/10.1136/bmj.f7511

- Singh, N. K., & Espinoza-Herold, M. (2014). Culture-based education: Lessons from Indigenous education in the U.S. and Southeast Asia. *NABE Journal of Research and Practice*, *5*(1), 7–39. https://doi.org/10.1080/26390043.2014.12067773
- Skinner, L. (1991). Teaching through traditions: Incorporating native languages and cultures into curricula. Indian Nations at Risk Task Force, Department of Education, Washington, D.C. https://files.eric.ed.gov/fulltext/ED343764.pdf
- State Normal School for Women at Harrisonburg, State Teachers College at Harrisonburg, & Madison College. (2011). *The Virginia teacher* (Vol. 12). State Normal School for Women.

 https://books.google.ca/books/about/The_Virginia_Teacher.html?id=NK4pAQAAMAAJ &redir esc=y
- Stewart, G., Trinick, T., & Dale, H. (2017). Huarahi Māori: Two decades of Indigenous teacher education at the University of Auckland. In P. Whitinui, C. Rodriguez de France, & O. McIvor (Eds.), *Promising practices in Indigenous teacher education* (pp. 149–162). https://doi.org/10.1007/978-981-10-6400-5 11
- Sultana, S. (2021). Indigenous ethnic languages in Bangladesh: Paradoxes of the multilingual ecology. *Ethnicities*, *23*(5), 680–705. https://doi.org/10.1177/14687968211021520
- Sundararajan, G. (2024, February 20). Why mother tongue education holds the key to unlocking every child's potential. UNICEF India. https://www.unicef.org/india/stories/why-mother-tongue-education-holds-key-unlocking-every-childs-potential#:~:text=Beyond%20academic%20benefits%2C%20mother%20tongue,deep%20 connection%20to%20their%20heritage.

- Talukdar, S., Rumi, M. H., & Makhdum, N. (2020). Language barrier in getting quality education and employment for CHT Indigenous People in Bangladesh. *North American Academic Research*, *3*(12), 323–341. https://doi.org/https://doi.org/10.5281/zenodo.4396198
- Teare, A., Mease, A., Madampage, C., King, A., & King, M. (2024). A process for Indigenous community research through meaningful engagement with Grandmother's Bay. *AlterNative: An International Journal of Indigenous Peoples*, 20(1), 30–41. https://doi.org/10.1177/11771801241235348
- Tessier, S. (2012). From field notes, to transcripts, to tape recordings: Evolution or combination? *International Journal of Qualitative Methods*, 11(4), 446–460. https://doi.org/10.1177/160940691201100410
- Thorpe, K., & Galassi, M. (2014). Rediscovering Indigenous languages: The role and impact of libraries and archives in cultural revitalisation. *Australian Academic Research Libraries*, 45(2), 81–100. https://doi.org/10.1080/00048623.2014.910858
- Tite, R. (2010a). *Code the data*. Memorial University of Newfoundland. https://online.mun.ca/d21/le/content/479670/viewContent/4288082/View
- Tite, R. (2010b). *Generate categories & themes*. Memorial University of Newfoundland. https://online.mun.ca/d2l/le/content/479670/viewContent/4288081/View
- Tite, R. (2010c). *Getting started*. Memorial University of Newfoundland. https://online.mun.ca/d21/le/content/479670/viewContent/4288077/View

- Tite, R. (2010d). *Interviewing*. Memorial University of Newfoundland. Retrieved https://online.mun.ca/d2l/le/content/479670/viewContent/4288066/View
- Tite, R. (2010e). *Phenomenology*. Memorial University of Newfoundland. https://online.mun.ca/d21/le/content/479670/viewContent/4288091/View
- Tite, R. (2010f). *Texts, artifacts and physical trace collection*. Memorial University of Newfoundland. https://online.mun.ca/d2l/le/content/479670/viewContent/4288072/View
- Tite, R. (2010g). *The object/subject dichotomy*. Memorial University of https://online.mun.ca/d21/le/content/479670/viewContent/4288035/View
- Toohey, K. (1985). Northern Native Canadian language education. *Canadian Review of Sociology*, 22(1), 93–101. https://doi.org/10.1111/j.1755-618x.1985.tb00719.x
- Translated by Content Engine LLC. (2023). Shortage of bilingual teachers in the U.S. hurts Spanish language teaching. ContentEngine.
- Translated by Content Engine LLC. (2022). Teacher with Indigenous or native language proficiency: Register HERE to obtain a certificate and apply for appointments

 ContentEngine.
- Tripura, M. B. (2016). *Indigenous languages: Preservation and revitalization: Articles 13, 14 and 16 of the United Nations Declaration on the Rights of Indigenous Peoples*. https://www.un.org/esa/socdev/unpfii/documents/2016/egm/Paper_Mathura2.pdf.
- United Nations Children's Fund [UNICEF]. (2018). *Teacher manual of school-based and classroom-based activities to support all learners*.

- https://www.unicef.org/northmacedonia/reports/teacher-manual-school-based-and-classroom-based-activities-support-all-learners#:~:text=It%20is%20a%20practical%20guide,that%20can%20be%20directly%20implemented.
- Unrepresented Nations and Peoples Organization. (2015, August 21). *Chittagong Hill tracts: 228*primary schools threatened with closure due to lack of funding.

 https://unpo.org/article/18498
- Unrepresented Nations and Peoples Organization. (2016, February 26). *Chittagong Hill tracts:*the importance of language. https://unpo.org/article/18955
- Unrepresented Nations and Peoples Organization. (2017, August 9). *Chittagong Hill tracts: Is the*government initiative of Teaching Indigenous Languages already failing?

 https://unpo.org/article/20266
- Usborne, E., Peck, J., Smith, D.-L., & Taylor, D. M. (2011). Learning through an Aboriginal language: The impact on students' English and Aboriginal language skills. *Canadian Journal of Education*, *34*(4), 200–215.
- Van Gelderen, B. (2017). Growing our own: A "two way", place-based approach to Indigenous initial teacher education in remote Northern Territory. *The Australian and International Journal of Rural Education*, 27(1), 14–28. https://doi.org/10.47381/aijre.v27i1.81
- Viviani, W., Brantlinger, A., & Grant, A. A. (2022, November 30). Teacher preparedness and retention. *Teacher Education Quarterly*, *50*(3), 54-77. https://eric.ed.gov/?q=retention&id=EJ1398285

- Whitinui, P., Rodríguez del France, C., & McIvor, O. (2018). *Promising practices in Indigenous teacher education*. Springer.
- Wright, S. C., Taylor, D. M., & Macarthur, J. (2000). Subtractive bilingualism and the survival of the Inuit language: Heritage- versus second-language education. *Journal of Educational Psychology*, *92*(1), 63–84. https://doi.org/10.1037//0022-0663.92.1.63
- Xerri, D. (2018). The use of interviews and focus groups in teacher research. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, *91*(3), 140–146. https://doi.org/10.1080/00098655.2018.1436820

Appendix A – Project Statement (English Version)

Project Statement:

Efficacy of Indigenous Primary Level Teachers to Teach in Mother Tongues in Bangladesh



Researcher: Abdullah Al Mamun Bhuiyan, Master of Education, Faculty of Education,

Memorial University, Canada.

Contact no: +1-709-351-6261. Email: aambhuiyan@mun.ca

Supervisors: Principal Supervisor: Dr. Dale Kirby, Assistant Professor, Faculty of

Education, Memorial University, Canada.

Contact no: +1-709-864-3186. E-mail: dkirby@mun.ca

Co-supervisor: Dr. Andrew Coombs, Assistant Professor (Teaching),

Faculty of Education, Memorial University, Canada.

Contact no: +1-709-327-7813. E-mail: AndrewJC@mun.ca

You are invited to take part in a research project entitled "Efficacy of Indigenous Primary Level Teachers to Teach in Mother Tongues in Bangladesh."

This form is part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. It also describes your right to withdraw from the study. In order to decide whether you wish to participate in this research study, you should understand enough about its risks and benefits to be able to make an informed decision. This is the informed consent process. Take time to read this carefully and to understand the information given to you. Please contact the researcher, *Abdullah Al Mamun Bhuiyan*, if you have any questions about the study or would like more information before you consent.

It is entirely up to you to decide whether to take part in this research. If you choose not to take part in this research or if you decide to withdraw from the research once it has started, there will be no negative consequences for you, now or in the future.

Introduction:

I am a master's student, and my school is Faculty of Education at Memorial University. As part of my master's thesis, I am conducting research under the supervision of Dr. Dale Kirby and Dr. Andrew Coombs.

Purpose of Study

The purpose of this study is to examine the training of indigenous teachers who teach indigenous pre-primary school-going children in their indigenous language(s) in Bangladesh.

Your Role in the Study

You are being asked to participate in a research interview by telephone or video call on Facebook Messenger or WhatsApp and to share your experience of teaching indigenous preprimary school-going children in their languages in Bangladesh.

Length of Interview

The telephone/video interview will likely take approximately 1 hour.

Recording of Data:

Each interview will be audio and video recorded.

Interview Language:

You can answer either in Bangla or English based on your preference.

Arranging the Interview

Your telephone/video interview would be scheduled at a time that is convenient for you. If there is a need to reschedule, an alternate time can be arranged.

Possible Benefits:

a) This study may benefit the indigenous community because it will give indigenous preprimary schoolteachers a chance to reflect upon the necessity of training to teach using textbooks written in indigenous languages.

- b) Since little research has been conducted on the training of indigenous teachers in the Bangladeshi context, the results of this study may help to better understand the necessity to provide training for indigenous teachers who teach indigenous pre-primary school-going children in their indigenous languages in Bangladesh.
- c) The research data will provide essential information for supporting the indigenous education system in Bangladesh, and would be beneficial for Bangladeshi indigenous teachers, the indigenous scholars' community, indigenous educationists, indigenous leaders, school authorities, government authorities, teacher training institutes, and policymakers.

Possible Risks:

Because you will be reflecting upon past and current life experiences, some of this reflection may result in unpleasant memories or feelings. If you need someone to speak to about any unpleasant memories or feelings that may arise from participating in the study, please contact the following community services:

- National Emergency Hotline Number, Bangladesh by calling 999;
- National Hotline Number, Bangladesh by calling 333; or
- Ain o Salish Kendra, Bangladesh (Legal assistance, emergency shelter and mental healthcare) at +88-01724-415-677.

There is no potential financial risks associated with participating in this research.

Confidentiality

The ethical duty of confidentiality includes safeguarding all participants' identities, personal information, and data from unauthorized access, use, or disclosure. Your privacy and confidentiality will be maintained. Only the main researcher, Abdullah Al Mamun Bhuiyan, his supervisor, Dr. Dale Kirby, and co-supervisor, Dr. Andrew Coombs, will have access to your responses in the interview.

The data from this research project may be published and presented at conferences but your identity will always be kept confidential. Although I will report direct quotations from the interview, you will be given a pseudonym, and all identifying information such as your name, birthdate, address, email and phone number will be removed from our report. However, because the participants for this research project have been selected from a small group of people, some of whom are known to each other, it is still possible that you may be identifiable to other people based on what you have answered in the interview.

Use, Access, Ownership, and Storage of Data:

Electronic information and data will be stored on a hard drive and a USB stick. Electronic data files will be password-protected and stored on a password-protected computer. A USB drive, containing a backup copy of all electronic information and data, and any paper-based information will be stored in a locked filing cabinet, in a locked room. Oral Consent forms will be stored separately in another locked filing cabinet. Only the lead researcher, Abdullah Al Mamun Bhuiyan, his supervisor, Dr. Dale Kirby, and co-supervisor, Dr. Andrew Coombs, will have access to data that has not been anonymized. After five years, all audio and video recordings from the interviews will be destroyed.

Third-Party Data Collection and/or Storage:

Data collected from you as part of your participation in this project will be hosted and/or stored electronically by Memorial University's server, which is subject to its respective privacy policies, and to any relevant laws of the country in which the server is located. Therefore, anonymity and confidentiality of data may not be guaranteed in the rare instance, for example, that government agencies obtain a court order compelling the provider to grant access to specific data stored on the server. If you have questions or concerns about how your data will be collected or stored, please contact the researcher and/or visit the provider's website for more information before participating. The privacy and security policy of the third-party hosting data collection and/or storing data can be found at: https://www.mun.ca/iap/resources/

Reporting of Results:

Data from this research may be published in journal articles, summary reports, or academic conference presentations. Any reported data will be presented in aggregate form and anonymized using direct quotations from participants may also be used. Upon completion, my thesis will be available at Memorial University's Queen Elizabeth II library and accessed online at: https://research.library.mun.ca/view/theses_dept/.

Sharing of Results with Participants:

If you want to see interview transcripts to review, modify, or request removal of any information, you may do so up until July 31, 2023. If you withdraw from participation, the data will be destroyed after July 31, 2023.

After the thesis has been completed and accepted by Memorial University, you may request a copy of it from the researcher. All participants will get a short final summary report of the study through email, WhatsApp, or Facebook Messenger, depending on their preference.

Withdrawal from the Study and Change of Responses:

You may choose to withdraw from the study at any time. Moreover, if you would like to withdraw from the study or change the information you provide in the interview after completing it, you may do so up until July 31, 2023. After July 31, 2023, data from the interview will be anonymized, analyzed, and compiled into a database that does not contain information that can be used to identify your participation in the study. Therefore, the researcher will no longer be able to remove or change data after that point. To withdraw or change responses from the interview, please contact aambhuiyan@mun.ca or call +1-709-351-6261.

Questions:

You are welcome to ask questions before, during, or after your participation in this research. If you would like more information about this study, please contact Abdullah Al Mamun Bhuiyan at aambhuiyan@mun.ca or +1-709-351-6261. You may contact his supervisor, Dr. Dale Kirby at dkirby@mun.ca or +1-709-864-3186. You may also contact his co-supervisor, Dr. Andrew Coombs at AndrewJC@mun.ca or +1-709-327-7813.

The proposal for this research has been reviewed by the Interdisciplinary Committee on Ethics in Human Research and found to be in compliance with Memorial University's ethics policy. If you have ethical concerns about the research, such as the way you have been treated or your rights as a participant, you may contact the Chairperson of the ICEHR at icehr@mun.ca or by telephone at 709-864-2861.

Appendix B – Project Statement (Bangla Version)

প্রকল্প বিবৃতি:

বাংলাদেশে মাতৃভাষায় পাঠদানের জন্য আদিবাসী প্রাথমিক স্তরের শিক্ষকদের কার্যকারিতা



গবেষক: আবদুল্লাহ আল মামুন ভূঁইয়া, মাস্টার অব এডুকেশন, ফ্যাকাল্টি অব এডুকেশন,

মেমোরিয*়াল ইউনিভার্সিটি*, কানাডা। যোগাযোগের নম্বর: ১-৭০৯-৩৫১-৬২৬১। Email:

aambhuiyan@mun.ca

সুপারভাইজার: প্রধান তত্ত্বাবধায়ক: ড. ডেল কিরবি, সহকারী অধ্যাপক, শিক্ষা অনুষদ, মেমোরিয*়াল*

ইউনিভার্সিটি, কানাডা। যোগাযোগের নম্বর: ১-৭০৯-৮৬৪-৩১৮৬। E-mail:

dkirby@mun.ca

সহ-তত্ত্বাবধায়ক: ড. অ্যান্ত্র কম্বস, সহকারী অধ্যাপক (শিক্ষা), শিক্ষা অনুষদ, মেমোরিয়াল

ইউনিভার্সিটি, কানাডা। যোগাযোগের নম্বর: ১-৭০৯-৩২৭-৭৮১৩। E-mail:

AndrewJC@mun.ca

"বাংলাদেশে মাতৃভাষায় শেখানোর জন্য আদিবাসী প্রাথমিক স্তরের শিক্ষকদের কার্যকারিতা" শীর্ষক একটি গবেষণা প্রকল্পে অংশ নিতে আপনাকে আমন্ত্রণ জানানো হয়েছে।

এই ফর্মটি অবহিত সম্মতির প্রক্রিয়ার অংশ। এটি আপনাকে গবেষণাটি সম্পর্কে প্রাথমিক ধারণা দিতে হবে এবং আপনার অংশগ্রহণের সাথে কী জড়িত থাকবে। এটি আপনার অধ্যয়ন থেকে প্রত্যাহার করার অধিকারও বর্ণনা করে। আপনি এই গবেষণা অধ্যয়নে অংশগ্রহণ করতে চান কিনা তা স্থির করার জন্য, একটি সুবিবেচিত সিদ্ধান্ত নিতে সক্ষম হওয়ার জন্য আপনাকে এর ঝুঁকি এবং সুবিধাগুলি সম্পর্কে যথেষ্ট বোঝা উচিত। এটি অবহিত সম্মতি প্রক্রিয়া। এটি মনোযোগ সহকারে পড়ার জন্য এবং আপনাকে দেওয়া তথ্য বুঝতে সময় নিন। অনুগ্রহ করে গবেষক আবদুল্লাহ আল মামুন ভূঁইয়ার সাথে যোগাযোগ করুন, যদি অধ্যয়ন সম্পর্কে আপনার কোন প্রশ্ন থাকে বা আপনি সম্মতি দেওয়ার আগে আরও তথ্য চান।

এই গবেষণায় অংশ নেবেন কিনা তা সম্পূর্ণরূপে আপনার উপর নির্ভর করে। আপনি যদি এই গবেষণায় অংশ না নেওয়ার সিদ্ধান্ত নেন বা গবেষণা শুরু হওয়ার পরে আপনি যদি এটি থেকে প্রত্যাহার করার সিদ্ধান্ত নেন তবে এখন বা ভবিষ্যতে আপনার জন্য কোন নেতিবাচক পরিণতি হবে না।

ভূমিকাঃ

আমি একজন মাস্টার্সের ছাত্র, এবং আমার স্কুল মেমোরিয়াল ইউনিভার্সিটির শিক্ষা অনুষদ। আমার মাস্টার্স থিসিসের অংশ হিসাবে, আমি ডঃ ডেল কিরবি এবং ডঃ অ্যান্ত্র কম্বসের তত্ত্বাবধানে গবেষণা পরিচালনা করছি।

অধ্যয়নের উদ্দেশ্য

এই অধ্যয়নের উদ্দেশ্য হল আদিবাসী শিক্ষকদের প্রশিক্ষণ পরীক্ষা করা যারা বাংলাদেশে আদিবাসী প্রাক-প্রাথমিক স্কুলে যাওয়া শিশুদের তাদের আদিবাসী ভাষায় শিক্ষা দেন।

অধ্যয়নে আপনার ভূমিকা

আপনাকে ফেসবুক মেসেঞ্জার বা হোয়াটসঅ্যাপে টেলিফোন বা ভিডিও কলের মাধ্যমে একটি গবেষণা সাক্ষাৎকারে অংশ নিতে এবং বাংলাদেশে আদিবাসী প্রাক-প্রাথমিক স্কুলে যাওয়া শিশুদের তাদের ভাষায় শিক্ষা দেওয়ার আপনার অভিজ্ঞতা শেয়ার করতে বলা হচ্ছে।

সাক্ষাৎকারের দৈর্ঘ্য

টেলিফোন/ভিডিও সাক্ষাৎকারটি প্রায় ১ ঘন্টা সময় নেবে।

ডেটা রেকর্ডিং:

প্রতিটি সাক্ষাৎকার অডিও এবং ভিডিও রেকর্ড করা হবে।

সাক্ষাৎকারের ভাষা:

আপনি আপনার পছন্দের ভিত্তিতে বাংলা বা ইংরেজিতে উত্তর দিতে পারেন।

সাক্ষাৎকারের আয**়োজ**ন

আপনার টেলিফোন/ভিডিও ইন্টারভিউ আপনার জন্য সুবিধাজনক সময়ে নির্ধারিত হবে। যদি পুনর্নিধারণের প্রয়োজন হয়, একটি বিকল্প সময় ব্যবস্থা করা যেতে পারে।

সম্ভাব্য সুবিধাঃ

ক) এই অধ্যয়নটি আদিবাসী সম্প্রদায়ের জন্য উপকৃত হতে পারে কারণ এটি আদিবাসী প্রাক-প্রাথমিক বিদ্যালয়ের শিক্ষকদের দেশীয় ভাষায় লেখা পাঠ্যপুস্তক ব্যবহার করে শেখানোর জন্য প্রশিক্ষণের প্রয়োজনীয়তা সম্পর্কে চিন্তা করার সুযোগ দেবে।

- খ) যেহেতু বাংলাদেশী প্রেক্ষাপটে আদিবাসী শিক্ষকদের প্রশিক্ষণ নিয়ে সামান্য গবেষণা করা হয়েছে, তাই এই গবেষণার ফলাফলগুলি আদিবাসী শিক্ষকদের প্রশিক্ষণ প্রদানের প্রয়োজনীয়তাকে আরও ভালভাবে বুঝতে সাহায্য করতে পারে যারা আদিবাসী প্রাক-প্রাথমিক স্কুলে যাওয়া শিশুদের তাদের আদিবাসীদের মধ্যে পড়ান। বাংলাদেশের ভাষা।
- গ) গবেষণা তথ্য বাংলাদেশের আদিবাসী শিক্ষা ব্যবস্থাকে সমর্থন করার জন্য প্রয়োজনীয় তথ্য প্রদান করবে এবং বাংলাদেশী আদিবাসী শিক্ষক, আদিবাসী পতি সম্প্রদায়, আদিবাসী শিক্ষাবিদ, আদিবাসী নেতা, স্কুল কর্তৃপক্ষ, সরকারী কর্তৃপক্ষ, শিক্ষক প্রশিক্ষণ প্রতিষ্ঠান এবং নীতিনির্ধারকদের জন্য উপকারী হবে।

সম্ভাব্য ঝুঁকি:

যেহেতু আপনি অতীত এবং বর্তমান জীবনের অভিজ্ঞতার উপর প্রতিফলিত হবেন, এই প্রতিফলনের কিছু অপ্রীতিকর স্মৃতি বা অনুভূতি হতে পারে। অধ্যয়নে অংশগ্রহণ করার ফলে উদ্ভূত কোনো অপ্রীতিকর স্মৃতি বা অনুভূতি সম্পর্কে আপনার যদি কারো সাথে কথা বলার প্রয়োজন হয়, তাহলে অনুগ্রহ করে নিম্নোক্ত কমিউনিটি সার্ভিসের সাথে যোগাযোগ করুন:

- জাতীয় জরুরি হটলাইন নম্বর, বাংলাদেশ ৯৯৯ নম্বরে কল করে;
- জাতীয় হটলাইন নম্বর, বাংলাদেশ ৩৩৩ নম্বরে কল করে; বা
- আইন ও সালিশ কেন্দ্র, বাংলাদেশ (আইনি সহায়তা, জরুরি আশ্রয় এবং মানসিক স্বাস্থ্যসেবা) ৮৮-০১৭২৪-৪১৫-৬৭৭ নম্বরে।

এই গবেষণায় অংশগ্রহণের সাথে সম্পর্কিত কোন পূর্বাভাস ঝুঁকি নেই।

গোপনীয়তা

গোপনীয়তার নৈতিক দায়েত্বের মধ্যে সমস্ত অংশগ্রহণকারীদের পরিচয়, ব্যক্তিগত তথ্য এবং অননুমোদিত অ্যাক্সেস, ব্যবহার বা প্রকাশ থেকে ডেটা রক্ষা করা অন্তর্ভুক্ত। আপনার গোপনীয়তা এবং গোপনীয়তা বজায় রাখা হবে। শুধুমাত্র প্রধান গবেষক, আবদুল্লাহ আল মামুন ভূঁইয়া, তার তত্ত্বাবধায়ক, ড. ডেল কিরবি, এবং সহ-তত্ত্বাবধায়ক, ড. অ্যান্ড্র্ কম্বস, সাক্ষাৎকারে আপনার প্রতিক্রিয়াগুলিতে অ্যাক্সেস পাবেন।

এই গবেষণা প্রকল্পের তথ্য প্রকাশ এবং সম্মেলনে উপস্থাপন করা যেতে পারে কিন্তু আপনার পরিচয় সবসময় গোপন রাখা হবে।
যদিও আমি সাক্ষাৎকার থেকে সরাসরি উদ্ধৃতি রিপোর্ট করব, আপনাকে একটি ছদ্মনাম দেওয়া হবে এবং আপনার নাম,
জন্মতারিখ, ঠিকানা, ইমেল এবং ফোন নম্বরের মতো সমস্ত শনাক্তকারী তথ্য আমাদের প্রতিবেদন থেকে মুছে ফেলা হবে।
যাইহোক, যেহেতু এই গবেষণা প্রকল্পের জন্য অংশগ্রহণকারীদের একটি ছোট গোষ্ঠীর লোকদের থেকে নির্বাচন করা হয়েছে,
যাদের মধ্যে কেউ কেউ একে অপরের সাথে পরিচিত, এটি এখনও সম্ভব যে আপনি সাক্ষাৎকারে যা উত্তর দিয়েছেন তার উপর
ভিত্তি করে আপনি অন্য লোকেদের কাছে সনাক্তযোগ্য হতে পারেন।

নাম প্রকাশ না করা:

নাম প্রকাশ না করা বলতে অংশগ্রহণকারীদের সনাক্তকরণের বৈশিষ্ট্যগুলিকে রক্ষা করা বোঝায়, যেমন নাম বা শারীরিক চেহারার বর্ণনা।

আপনার নাম প্রকাশ না করার জন্য প্রতিটি যুক্তিসঙ্গত প্রচেষ্টা করা হবে। আপনি যদি অধ্যয়নে আপনার অংশগ্রহণ বেনামী কিনা তা নিশ্চিত করতে চান, অনুগ্রহ করে গবেষক আবদুল্লাহ আল মামুন ভূঁইয়াকে একটি ব্যক্তিগত কথোপকথনে জানান (হয় গবেষককে কল করে, টেক্সট করে বা ইমেল করে), এবং তিনি নিশ্চিত করার জন্য যথাসাধ্য চেষ্টা করবেন। অংশগ্রহণে আপনার পরিচয় গোপন রাখা হয়। উপরক্ত, আপনি সাক্ষাৎকারে যে উত্তরগুলি প্রদান করবেন তা এই অধ্যয়নের ফলাফল হতে পারে এমন সমস্ত সম্ভাব্য প্রকাশনায় বেনামী থাকবে।

তথ্য সংগ্ৰহ:

একবার মেমোরিয়াল ইউনিভার্সিটি এথিক্স কমিটি নৈতিকতার অনুমোদন দিলে, গবেষক অধ্যয়ন অংশগ্রহণকারীদের থেকে ডেটা সংগ্রহ করা শুরু করবেন। সাক্ষাৎকারের আগে অংশগ্রহণকারীদের জানানো হবে যে সাক্ষাৎকারে অংশগ্রহণের জন্য কোন মূল্য বিচার নেই। গবেষক সাক্ষাৎকারে অংশগ্রহণকারীদের সাথে বিনয়ের সাথে কথা বলবেন এবং তাদের গবেষণার বিষয়ে তাদের দৃষ্টিভঙ্গি প্রকাশ করার স্বাধীনতা দেবেন।

ডেটা ব্যবহার, অ্যাক্সেস, মালিকানা এবং সঞ্চয়:

ইলেক্ট্রনিক তথ্য এবং ডেটা একটি হার্ড ড্রাইভ এবং একটি ইউএসবি স্টিকে সংরক্ষণ করা হবে। ইলেক্ট্রনিক ডেটা ফাইলগুলি পাসওয়ার্ড-সুরক্ষিত এবং একটি পাসওয়ার্ড-সুরক্ষিত কম্পিউটারে সংরক্ষণ করা হবে। একটি ইউএসবি ড্রাইভ, যাতে সমস্ত ইলেক্ট্রনিক তথ্য এবং ডেটার একটি ব্যাকআপ কপি থাকে এবং যেকোন কাগজ-ভিত্তিক তথ্য একটি লক করা ফাইলিং ক্যাবিনেটে, একটি লক করা ঘরে সংরক্ষণ করা হবে। মৌখিক সম্মতি ফর্মগুলি আলাদাভাবে অন্য লক করা ফাইলিং ক্যাবিনেটে সংরক্ষণ করা হবে। গুধুমাত্র প্রধান গবেষক, আবদুল্লাহ আল মামুন ভূঁইয়া, তার তত্ত্বাবধায়ক, ড. ডেল কিরবি, এবং সহ-তত্ত্বাবধায়ক, ড. আড্রু কম্বস, এমন ডেটা অ্যাক্সেস করতে পারবেন যা বেনামী করা হয়নি। পাঁচ বছর পর, সাক্ষাৎকারের সমস্ত অডিও এবং ভিডিও রেকর্ডিং ধ্বংস করা হবে।

তৃতীয় পক্ষের ডেটা সংগ্রহ এবং/অথবা সঞ্চয়স্থান:

এই প্রকল্পে আপনার অংশগ্রহণের অংশ হিসাবে আপনার কাছ থেকে সংগৃহীত ডেটা মেমোরিয়াল ইউনিভার্সিটির সার্ভার দ্বারা হোস্ট এবং/অথবা ইলেক্ট্রনিকভাবে সংরক্ষণ করা হবে, যা তার নিজ নিজ গোপনীয়তা নীতি এবং সার্ভারটি যে দেশে অবস্থিত সে দেশের যেকোনো প্রাসঙ্গিক আইনের অধীন। তাই, বিরল দৃষ্টান্তে তথ্য গোপনীয়তা এবং গোপনীয়তার নিশ্চয়তা দেওয়া যায় না, উদাহরণস্বরূপ, সরকারী সংস্থাগুলি একটি আদালতের আদেশ প্রাপ্ত করে যা প্রদানকারীকে সার্ভারে সঞ্চিত নির্দিষ্ট ডেটাতে অ্যাক্সেস দিতে বাধ্য করে। আপনার ডেটা কীভাবে সংগ্রহ বা সংরক্ষণ করা হবে সে সম্পর্কে আপনার প্রশ্ন বা উদ্বেগ থাকলে, অনুগ্রহ করে গবেষকের সাথে যোগাযোগ করুন এবং/অথবা আরও তথ্যের জন্য প্রদানকারীর ওয়েবসাইট দেখুন

অংশগ্রহণের আগে তথ্য। তৃতীয় পক্ষের হোস্টিং ডেটা সংগ্রহ এবং/অথবা ডেটা সংরক্ষণের গোপনীয়তা এবং নিরাপত্তা নীতি এখানে পাওয়া যাবে: https://www.mun.ca/iap/resources/

ফলাফলের প্রতিবেদন:

এই গবেষণা থেকে তথ্য জার্নাল নিবন্ধ, সারাংশ রিপোর্ট, বা একাডেমিক সম্মেলন উপস্থাপনা প্রকাশিত হতে পারে। কোনো রিপোর্ট করা তথ্য সমষ্টিগত আকারে উপস্থাপন করা হবে এবং অংশগ্রহণকারীদের সরাসরি উদ্ধৃতি ব্যবহার করে বেনামীও ব্যবহার করা যেতে পারে। সমাপ্তির পরে, আমার থিসিস মেমোরিয়াল ইউনিভার্সিটির কুইন এলিজাবেথ II লাইব্রেরিতে পাওয়া যাবে এবং অনলাইনে অ্যাক্সেস করা হবে: https://research.library.mun.ca/view/theses dept/

অংশগ্রহণকারীদের সাথে ফলাফল শেয়ার করা:

আপনি যদি কোনো তথ্য পর্যালোচনা, পরিবর্তন বা সরানোর অনুরোধ করতে ইন্টারভিউট্রাঙ্গক্রিপ্ট দেখতে চান, তাহলে আপনি ৩১ জুলাই, ২০২৩ পর্যন্ত তা করতে পারেন। আপনি যদি অংশগ্রহণ থেকে সরে যান, তাহলে ৩১ জুলাই, ২০২৩-এর পর ডেটা নষ্ট হয়ে যাবে।

মেমোরিয়াল ইউনিভার্সিটি দ্বারা থিসিসটি সম্পন্ন এবং গৃহীত হওয়ার পরে, আপনি গবেষকের কাছ থেকে এটির একটি অনুলিপি অনুরোধ করতে পারেন। সমস্ত অংশগ্রহণকারীরা তাদের পছন্দের উপর নির্ভর করে ইমেল, হোয়াটসঅ্যাপ বা ফেসবুক মেসেঞ্জারের মাধ্যমে অধ্যয়নের একটি সংক্ষিপ্ত চূড়ান্ত সারসংক্ষেপ প্রতিবেদন পাবেন।

অধ্যয়ন থেকে প্রত্যাহার এবং প্রতিক্রিয়া পরিবর্তন:

আপনি যেকোনো সময় অধ্যয়ন থেকে প্রত্যাহার করতে পারেন। অধিকম্ভ, আপনি যদি অধ্যয়ন থেকে প্রত্যাহার করতে চান বা ইন্টারভিউ শেষ করার পরে আপনার দেওয়া তথ্য পরিবর্তন করতে চান তবে আপনি ৩১ জুলাই, ২০২৩ পর্যন্ত তা করতে পারেন। ৩১ জুলাই, ২০২৩ এর পরে, সাক্ষাৎকারের ডেটা বেনামী করা হবে, বিশ্লেষণ করা হবে, এবং একটি ডাটাবেসে কম্পাইল করা হয়েছে যাতে এমন তথ্য নেই যা গবেষণায় আপনার অংশগ্রহণ শনাক্ত করতে ব্যবহার করা যেতে পারে। অতএব, গবেষক সেই পয়েন্টের পরে আর ডেটা অপসারণ বা পরিবর্তন করতে পারবেন না। ইন্টারভিউ থেকে প্রতিক্রিয়া প্রত্যাহার বা পরিবর্তন করতে, অনুগ্রহ করে ambhuiyan@mun.ca-এ যোগাযোগ করুন বা ১-৭০৯-৩৫১-৬২৬১ নম্বরে কল করুন।

প্রশ্নঃ

এই গবেষণায় আপনার অংশগ্রহণের আগে, চলাকালীন বা পরে প্রশ্ন জিজ্ঞাসা করতে আপনাকে স্বাগত জানাই। আপনি যদি এই গবেষণা সম্পর্কে আরও তথ্য চান, অনুগ্রহ করে আবদুল্লাহ আল মামুন ভূঁইয়ার সাথে ambhuiyan@mun.ca বা ১-৭০৯-৩৫১-৬২৬১ এ যোগাযোগ করুন। আপনি dkirby@mun.ca বা ১-৭০৯-৮৬৪-৩১৮৬-এ তার তত্ত্বাবধায়ক ডঃ ডেল কিরবির সাথে যোগাযোগ করতে পারেন। এছাড়াও আপনি তার সহ-তত্ত্বাবধায়ক, ডঃ অ্যান্ত্রু কম্বসের সাথে AndrewJC@mun.ca বা ১-৭০৯-৩২৭-৭৮১৩-এ যোগাযোগ করতে পারেন।

এই গবেষণার প্রস্তাবটি ইন্টারডিসিপ্লিনারি কমিটি অন এথিক্স ইন হিউম্যান রিসার্চ (আইসিইএইচআর) এবং কমিটি অন এথিক্যাল রিসার্চ ইমপ্যাক্তিং ইনডিজেনাস গ্রুপ (সিইআরআইআইজি) দ্বারা পর্যালোচনা করা হয়েছে যা মেমোরিয়াল ইউনিভার্সিটির নৈতিকতা নীতির সাথে সঙ্গতিপূর্ণ বলে প্রমাণিত হয়েছে। গবেষণা সম্পর্কে আপনার যদি নৈতিক উদ্বেগ থাকে, যেমন আপনার সাথে যেভাবে আচরণ করা হয়েছে বা অংশগ্রহণকারী হিসেবে আপনার অধিকার, আপনি icehr@mun.ca-এ বা টেলিফোনে আইসিইএইচআর -এর চেয়ারপারসনের সাথে যোগাযোগ করতে পারেন ১-৭০৯-৮৬৪-২৮৬১, এবং indigenousresearch@mun.ca-এ বা ১-৭০৯-৮৬৪-২৫৩০ নম্বরে ফোনের মাধ্যমে আদিবাসী গবেষণার সহযোগী ভাইস-প্রেসিডেন্টের অফিস।

Appendix C – ICHER Approval Letter



Interdisciplinary Committee on Ethics in Human Research (ICEHR)

St. John's, NL Canada A1C 5S7
Tel: 709 864-2561 icehr@mun.ca
www.mun.ca/research/ethics/humans/icehr

ICEHR Number:	20231518-ED
Approval Period:	June 30, 2023 – June 30, 2024
Funding Source:	
Responsible	Dr. Dale Kirby
Faculty:	Faculty of Education
Title of Project:	Efficacy of Indigenous Primary Level Teachers to Teach in Mother Tongues in Bangladesh

June 30, 2023

Abdullah Al Mamun Bhuiyan Faculty of Education Memorial University

Dear Abdullah Al Mamun Bhuiyan:

Thank you for your correspondence addressing the issues raised by the Interdisciplinary Committee on Ethics in Human Research (ICEHR) for the above-named research project. ICEHR has re-examined the proposal with the clarifications and revisions submitted, and is satisfied that the concerns raised by the Committee have been adequately addressed. In accordance with the *Tri-Council Policy Statement on Ethical Conduct for Research Involving Humans (TCPS2)*, the project has been granted *full ethics clearance* for **one year**. ICEHR approval applies to the ethical acceptability of the research, as per Article 6.3 of the *TCPS2*. Researchers are responsible for adherence to any other relevant University policies and/or funded or non-funded agreements that may be associated with the project. If funding is obtained subsequent to ethics approval, you must submit a Funding and/or Partner Change Request to ICEHR so that this ethics clearance can be linked to your award.

The TCPS2 requires that you strictly adhere to the protocol and documents as last reviewed by ICEHR. If you need to make additions and/or modifications, you must submit an Amendment Request with a description of these changes, for the Committee's review of potential ethical concerns, before they may be implemented. Submit a Personnel Change Form to add or remove project team members and/or research staff. Also, to inform ICEHR of any unanticipated occurrences, an Adverse Event Report must be submitted with an indication of how the unexpected event may affect the continuation of the project.

The TCPS2 requires that you submit an Annual Update to ICEHR before June 30, 2024. If you plan to continue the project, you need to request renewal of your ethics clearance and include a brief summary on the progress of your research. When the project no longer involves contact with human participants, is completed and/or terminated, you are required to provide an annual update with a brief final summary and your file will be closed. All post-approval ICEHR event forms noted above must be submitted by selecting the Applications: Post-Review link on your Researcher Portal homepage. We wish you success with your research.

Yours sincerely,

Kelly Blidook, Ph.D.

Chair, Interdisciplinary Committee on Ethics in Human Research

KB/bc

cc: Supervisor – Dr. Dale Kirby, Faculty of Education

Appendix D – CERIIG Approval Letter



Committee on Ethical Research Impacting Indigenous Groups (CERIIG)

Memorial University of Newfoundland Bruneau Centre for Research and Innovation St. John's, NL | A1C 5S7

July 6, 2023

Researcher Portal File #:20240380

Dear Abdullah Al Mamun Bhiuyan:

Thank you for your submission to the Committee on Ethical Research Impacting Indigenous Groups (CERIIG) for the project titled, "Efficacy of Indigenous Primary Level Teachers to Teach in Mother Tongues in Bangladesh" in which you are listed as Principal Investigator.

Your file has been APPROVED. At any time, you may access this file under the **Applications: Post-Review** link on your Researcher Portal home page.

Should you require any further direction, or information please reach out to indigenousresearch@mun.ca

Kind Regards, Rolanda Tucker

For:

Committee on Ethical Research Impacting Indigenous Groups (CERIIG)
Memorial University of Newfoundland
St. John's, NL | A1C 5S7
Bruneau Centre for Research and Innovation

Appendix E – Pre-Interview Letter

School name/Organization name

September 17, 2022

Name of the teacher/ Indigenous specialist/ government official

Bandarban, Chittagong

Bangladesh

Dear Mr. X,

You have been chosen to participate in a semi-structured interview conducted by Memorial

University, Canada, to collect your feedback on the Efficiency of Indigenous Primary Level

Teachers to Teach in Mother Tongues in Bangladesh.

The interview will take approximately 60 minutes to 120 minutes long informal conversation.

Your feedback will help us better understand the need for Indigenous teacher training to teach in

textbooks written in Indigenous language.

This is a confidential semi-structured interview; your participation puts you at absolutely no risk

and you are free to decline or withdraw at any time without consequence.

If you have any questions about this survey, you may contact me at Or by email at

Thank you for your participation.

Sincerely,

X

Research Coordinator

172

Appendix F – Verbal Consent Form (English Version)

Telephone script and record of consent

Participant Name:
Date of Contact:
Telephone Script:
I am following up on my earlier email / WhatsApp message / Facebook message regarding a
telephone / video interview of Chakma Indigenous teachers who teach Indigenous pre-primary
school-going children in their languages in Bangladesh.
Did you receive the emailed / messaged Project Statement? ☐ Yes ☐ No
As the Project Statement notes, the telephone / video interview asks about the current condition
of the training of Indigenous teachers to teach Indigenous pre-primary school-going children in
their languages in Bangladesh.
Your decision to take part in this telephone / video interview is voluntary and your responses will
be kept entirely confidential. If there is a question that you do not know how to answer, or do not
want to answer, that's okay, we can just go on to the next question.
Do you have any questions about taking part in this telephone / video interview? \square Yes \square No
Would you like to complete the telephone / video interview? \square Yes \square No
Researcher's Signature:
I explained this study to the participant to the best of my ability. Before receiving the
participant's consent, I invited questions and gave answers. I believe the participant
understands what is involved, including the contents of the Project Statement, and has
freely chosen to participate

Appendix G – Verbal Consent Form (Bangla Version)

মৌখিক সম্মতি ফর্ম টেলিফোন ব্রুপ্ট এবং সম্মতির রেকর্ড

অংশগ্রহণকারীর নাম:
যোগাযোগের তারিখ:
টেলিফোন ক্রিপ্ট:
আমি চাকমা আদিবাসী শিক্ষকদের টেলিফোন/ভিডিও সাক্ষাৎকারের বিষয়ে আমার পূর্বের ইমেল/হোয়াটসঅ্যাপ মেসেজ/ফেসবুক বার্তা অনুসরণ করছি যারা বাংলাদেশে আদিবাসী প্রাক-প্রাথমিক স্কুলে যাওয়া শিশুদের তাদের ভাষায় শিক্ষা দেন।
আপনি কি ইমেল/মেসেজ করা প্রজেক্ট স্টেটমেন্ট পেয়েছেন? 🗌 হ্যাঁ 🔲 না
প্রজেক্ট স্টেটমেন্টে উল্লেখ করা হয়েছে, টেলিফোন/ভিডিও সাক্ষাৎকারে বাংলাদেশে আদিবাসী প্রাক-প্রাথমিক স্কুলগামী শিশুদের তাদের ভাষায় শেখানোর জন্য আদিবাসী শিক্ষকদের প্রশিক্ষণের বর্তমান অবস্থা সম্পর্কে জিজ্ঞাসা করা হয়েছে।
এই টেলিফোন/ভিডিও সাক্ষাৎকারে অংশ নেওয়ার আপনার সিদ্ধান্তটি স্বেচ্ছায় এবং আপনার প্রতিক্রিয়াগুলি সম্পূর্ণ গোপন রাখা হবে। যদি এমন একটি প্রশ্ন থাকে যার উত্তর আপনি জানেন না বা উত্তর দিতে চান না, তাহলে ঠিক আছে, আমরা কেবল পরবর্তী প্রশ্নে যেতে পারি।
এই টেলিফোন/ভিডিও সাক্ষাৎকারে অংশ নেওয়ার বিষয়ে আপনার কোন প্রশ্ন আছে? 🛘 হ্যাঁ 🗖 না
আপনি কি টেলিফোন/ভিডিও সাক্ষাৎকারটি সম্পূর্ণ করতে চান? 🔲 হ্যাঁ 🔲 না
গবেষকের স্বাক্ষর:
আমি আমার সামর্থ্য অনুযায়ী অংশগ্রহণকারীকে এই অধ্যয়নটি ব্যাখ্যা করেছি। অংশগ্রহণকারীর সম্মতি পাওয়ার
আগে, আমি প্রশ্ন আমন্ত্রণ জানিয়েছিলাম এবং উত্তর দিয়েছিলাম। আমি বিশ্বাস করি যে প্রজেক্ট স্টেটমেন্টের বিষয়বস্ত

সহ অংশগ্রহণকারী কী জড়িত তা বুঝতে পেরেছেন এবং অবাধে অংশগ্রহণ করতে বেছে নিয়েছেন।

Appendix H – Interview Questions (English Version)

Types of	Purpose of questions		Questions for interview
questions			
1. Introducing	To kick start the	1.	Start the conversation by asking about the
questions	conversation and		person, his/her day-to-day life, and the number
	move to the main		of years he/she has been working as a teacher.
	interview	2.	Inform the teacher that almost all questions are
			related to the Indigenous textbook (Chakma
			language) and training of Indigenous teachers
			to teach books that the government education
			department provides.
2. Pre-main	To know about	3.	As this book is for pre-primary level students
topic	different types of		who are kids, are you trained up to teach
questions	training teachers have		them?
	received so far.	4.	Would you be able to provide a more thorough
			overview of the training programs you have
			taken to teach in primary schools?
		5.	What training have you obtained so far so that
			you can teach pre-primary level students in the
			Indigenous (Chakma) language?
3. Main	Learn about the	6.	Could you describe in as much detail as
questions	teacher's experience		possible your experience of teaching students
			with the textbook published in an Indigenous

	teaching in		language (Chakma language) without any
	Indigenous languages.		formal training or teaching handbook from the
			education ministry or teacher training
			institute?
4. Follow-up	Challenges of	7.	What challenges do you think you faced while
questions	teaching and progress		educating your Indigenous students using
	of students		textbooks written in their language since you
			have yet to receive any written teaching
			manual to teach in Indigenous language(s),
			especially Chakma languages, from any
			responsible government department?
		8.	How did you evaluate the progress of students
			without any written instruction or guideline to
			teach Indigenous textbooks?
5. Cognitive	Personal insights	9.	Can you describe a situation in which you
questions	about teacher training		realized how crucial it was to have specific
	and teaching manual.		teacher training in order to teach in an
			Indigenous language (Chakma language)?
		10.	. How do you think that if you are trained to
			teach in Indigenous language (Chakma
			languages) and get a teaching manual to teach
			in your language will assist you to contribute

		in students' achievements throughout their
		study?
		11. Since there is no specific training or even a
		1
		guideline that solely focuses on teaching in
		Indigenous languages, what are the kinds of
		activities which you personally applied in your
		class to make a lesson successful? Can you
		explain this to me in more detail
A	ctive listening, Nodding,	"mm", Repeating significant words
6. Experience	To pose projective	12. Based on your teaching experience, what
related	questions	extent are satisfied as a teacher teaching
questions		Chakma child in their language without any
		training or teaching notebook devoted entirely
		to Indigenous education? What metrics did
		you use to determine this success?
		13. On the basis of your teaching experience, to
		what extent are you dissatisfied as a teacher
		teaching Chakma children in their language
		without any training or a teaching notebook
		devoted solely to Indigenous education?
		Considering your experience, how did you
		determine this failure rate?

7. Specifying	To develop more	14. To what extent do you believe that teacher
questions	precise descriptions	training has a significant influence in
	from general	distinguishing between pre-training and post-
	statements	training teaching experiences? If possible,
		share some of your own experiences.
8. Structuring	To refer to the use of	I would like to introduce another topic regarding
questions	key questions to finish	the resources and instructions you get from
	off one part of the	different authorities to teach Indigenous textbooks
	interview and	to children and inter-personal relationship.
	open up another.	
9. Probing	To draw out more	15. What resources and guidelines have the
questions	complete narratives	government provided you with for teaching
		children via Indigenous textbooks? What is
		your opinion on the sufficiency of the given
		resources for effectively teaching these
		textbooks?
		16. How is the relationship between you and the
		authority (colleagues, your head teacher, or
		government education department officials)?
		17. What steps have you taken, based on your own
		experience teaching in your own language in a
		classroom, to let your colleagues, your head
		teacher, or government education department

		officials know about the need for training or a
		teaching manual that is solely focused on
		teaching in Indigenous languages (Chakma
		language)? If you did, what was their
		responses, and initiatives they took?
		18. While you wait for a training or instruction
		module to teach in the Indigenous (Chakma)
		language, can you explain in detail, what are
		your expectations from the teacher training
		department or other relevant authorities?
10. Direct	To elicit direct	19. If you were a decision-maker, how would you
questions	responses	handle the challenges faced by instructors who
		have been teaching in Indigenous (Chakma
		language) for a significant amount of time
		without any formal training or teaching
		manual that solely focuses on "techniques of
		teaching in Indigenous languages"?
11. Silence	To allow pauses, so that	the interviewees have ample time to associate and
	reflect, and break the sil	ence themselves with significant information
12. Emotional		20. Since you have students from different
experiences		Indigenous communities, how easy or
		difficult is teaching Chakma children to

	keep aside others in the classroom? In the
	classroom, how do you handle this?
	21. How would you characterize your views
	about educating just Chakma children
	since they have books in their language
	while excluding pupils from other ethnic
	groups, considering that Indigenous
	textbooks are only written in five
	languages?
	22. What do you think about the feeling of
	deprivation felt by parents and kids from
	different Indigenous groups? How did you
	experience it?
13. Additional	23. Is there anything else you believe we should know regarding
information	teaching in Indigenous (Chakma) language?

Note. The idea is taken from "The qualitative research interview" by Sandy Q. Qu and John Dumay, 2011, *Qualitative Research in Accounting & Management*, 8(3), p. 249 (DOI 10.1108/11766091111162070).

Appendix I – Interview Questions (Bangla Version)

সাক্ষাৎকার প্রশ্ন

প্রশ্নের ধরণ	প্রশ্নের কারণ	সাক্ষাৎকারের জন্য প্রশ্ন
১. প্রশ্ন উপস্থাপন করা	কথোপকথন শুরু করতে এবং মূল সাক্ষাৎকারে যেতে	 কথোপকথন শুরু করুন ব্যক্তি সম্পর্কে জিজ্ঞাসা করে, তার দৈনন্দিন জীবন, এবং তিনি কত বছর শিক্ষক হিসাবে কাজ করছেন। শিক্ষককে অবহিত করুন যে প্রায় সমস্ত প্রশ্নই আদিবাসী পাঠ্যপুস্তক (চাকমা ভাষা) সম্পর্কিত এবং সরকারী শিক্ষা বিভাগ যে বই সরবরাহ করে তা শেখানোর জন্য আদিবাসী শিক্ষকদের প্রশিক্ষণ।
২. প্রাক-প্রধান বিষয়ের প্রশ্ন	এ পর্যন্ত শিক্ষকদের বিভিন্ন ধরনের প্রশিক্ষণ সম্পর্কে জানতে	ত. যেহেতু এই বইটি প্রাক-প্রাথমিক স্তরের ছাত্রদের জন্য যারা শিশু, আপনি কি তাদের শেখানোর জন্য প্রশিক্ষিত? বি প্রাথমিক বিদ্যালয়ে শিক্ষাদানের জন্য যে প্রশিক্ষণ কর্মসূচীগুলি গ্রহণ করেছেন তার আরও পুজ্ঞানুপুজ্ঞ বিবরণ দিতে সক্ষম হবেন? বি প্রাক-প্রাথমিক স্তরের শিক্ষার্থীদের আদিবাসী (চাকমা) ভাষায় শেখাতে আপনি এখন পর্যন্ত কী প্রশিক্ষণ প্রেছেন?
৩. প্রধান প্রশ্ন	আদিবাসী ভাষায় শিক্ষকতার অভিজ্ঞতা সম্পর্কে জানুন।	৬. শিক্ষা মন্ত্রণালয় বা শিক্ষক প্রশিক্ষণ ইনস্টিটিউট থেকে কোনো আনুষ্ঠানিক প্রশিক্ষণ বা পাঠদানের হ্যান্ডবুক ছাড়াই একটি আদিবাসী ভাষায় (চাকমা ভাষা) প্রকাশিত পাঠ্যপুস্তকের মাধ্যমে শিক্ষার্থীদের পাঠদানের অভিজ্ঞতা আপনি যতটা সম্ভব বিস্তারিতভাবে বর্ণনা করতে পারেন?
8. ফলো-আপ প্রশ্ন	শিক্ষার্থীদের শিক্ষাদান এবং অগ্রগতির চ্যালেঞ্জ	
৫. জ্ঞানীয় প্রশ্ন	শিক্ষক প্রশিক্ষণ এবং শিক্ষণ ম্যানুয়াল সম্পর্কে ব্যক্তিগত অন্তর্দৃষ্টি।	৯. আপনি কি এমন একটি পরিস্থিতি বর্ণনা করতে পারেন যেখানে আপনি বুঝতে পেরেছিলেন যে একটি আদিবাসী ভাষায় (চাকমা ভাষা) শিক্ষা দেওয়ার জন্য নির্দিষ্ট শিক্ষক প্রশিক্ষণ থাকা কতটা গুরুত্বপূর্ণ ছিল?

		তে আপনি কীভাবে মনে করেন যে আপনি যদি আদিবাসী ভাষায় (চাকমা ভাষা) শেখানোর জন্য প্রশিক্ষিত হন এবং আপনার ভাষায় শেখানোর জন্য একটি শিক্ষণ ম্যানুয়াল পান তবে তা আপনাকে তাদের অধ্যয়ন জুড়ে শিক্ষার্থীদের অর্জনে অবদান রাখতে সহায়তা করবে? তেই কোনও নির্দিষ্ট প্রশিক্ষণ বা এমনকি একটি নির্দেশিকা নেই যা শুধুমাত্র আদিবাসী ভাষায় শিক্ষাদানের উপর দৃষ্টি নিবদ্ধ করে, তাই পাঠকে সফল করার জন্য আপনি ব্যক্তিগতভাবে আপনার ক্লাসে কোন ধরনের কার্যকলাপ প্রয়োগ করেছেন? আপনি আরো বিস্তারিত আমাকে এই ব্যাখ্যা করতে পারেন তি ক্লিক্ষার্য করতে পারেন তি আমাকে এই ব্যাখ্যা করতে পারেন তে আমাক করতে পারেন তে আমাক করতে পারেন তি আমাক করতে পারেন তে আমাক করতে পারেন তি আমাক করতা সামিক আমাক করতা সামিক আমাক করতা সামিক
সক্রিয় শ্রবণ, মাথা নাড়ানো, '	"এমএম", উল্লেখযোগ্য শব্দের পুনরাবৃত্তি	
৬. অভিজ্ঞতা সম্পর্কিত প্রশ্ন	প্রজেক্টিভ প্রশ্ন জাহির করতে	 ১২. আপনার শিক্ষাদানের অভিজ্ঞতার ভিত্তিতে, একজন শিক্ষক চাকমা শিশুকে তাদের ভাষায় শিক্ষাদানে কতটা সম্ভুষ্ট হন যে কোন প্রকার প্রশিক্ষণ বা শিক্ষাদানের নোটবুক সম্পূর্ণরূপে আদিবাসী শিক্ষার জন্য নিবেদিত? এই সাফল্য নির্ধারণ করতে আপনি কি মেট্রিক ব্যবহার করেছেন? ১৩. আপনার শিক্ষকতার অভিজ্ঞতার ভিত্তিতে, একজন শিক্ষক হিসাবে আপনি কতটা অসম্ভুষ্ট যে একজন শিক্ষক চাকমা শিশুদের তাদের ভাষায় শিক্ষা দিচ্ছেন বা শুধুমাত্র আদিবাসী শিক্ষার জন্য নিবেদিত একটি শিক্ষণ নোটবুক? আপনার অভিজ্ঞতা বিবেচনা করে, আপনি কিভাবে এই ব্যর্থতার হার নির্ধারণ করেছেন?
৭. প্রশ্ন নির্দিষ্ট করা	আরো সুনির্দিষ্ট বর্ণনা বিকাশ করতে সাধারণ বিবৃতি থেকে	১৪. আপনি কতটা বিশ্বাস করেন যে প্রাক-প্রশিক্ষণ এবং প্রশিক্ষণ-পরবর্তী শিক্ষণ অভিজ্ঞতার মধ্যে পার্থক্য করার ক্ষেত্রে শিক্ষক প্রশিক্ষণের একটি উল্লেখযোগ্য প্রভাব রয়েছে? সম্ভব হলে নিজের কিছু অভিজ্ঞতা শেয়ার করুন।
৮. গঠনমূলক প্রশ্ন	সাক্ষাৎকারের একটি অংশ শেষ করতে এবং অন্যটি খুলতে মূল প্রশ্নগুলির ব্যবহার উল্লেখ করতে।	বাচ্চাদের আদিবাসী পাঠ্যপুস্তক শেখানোর জন্য বিভিন্ন কর্তৃপক্ষের কাছ থেকে আপনি যে সংস্থান এবং নির্দেশাবলী পান এবং আস্তঃব্যক্তিগত সম্পর্কের বিষয়ে আমি আরেকটি বিষয় উপস্থাপন করতে চাই।
৯. প্রশ্ন অনুসন্ধান	আরো সম্পূর্ণ আখ্যান আঁকা	১৫. দেশীয় পাঠ্যপুস্তকের মাধ্যমে শিশুদের শেখানোর জন্য সরকার আপনাকে কী সংস্থান এবং নির্দেশিকা প্রদান করেছে? এই পাঠ্যপুস্তকগুলি কার্যকরভাবে শেখানোর জন্য প্রদত্ত সংস্থানগুলির পর্যাপ্ততা সম্পর্কে আপনার মতামত কী?

১০. সরাসরি প্রশ্ন	সরাসরি প্রতিক্রিয়া প্রকাশ করতে	১৬. আপনার এবং কর্তৃপক্ষের (সহকর্মী, আপনার প্রধান শিক্ষক বা সরকারি শিক্ষা বিভাগের কর্মকর্তাদের) মধ্যে সম্পর্ক কেমন? ১৭. শ্রেণীকক্ষে আপনার নিজের ভাষায় পাঠদানের অভিজ্ঞতার ভিত্তিতে আপনি কী পদক্ষেপ নিয়েছেন, আপনার সহকর্মীদের, আপনার প্রধান শিক্ষক, বা সরকারি শিক্ষা বিভাগের কর্মকর্তাদের প্রশিক্ষণের প্রয়োজনীয়তা বা একটি শিক্ষণ ম্যানুয়াল যা সম্পূর্ণভাবে কেন্দ্রীভূত করা হয় তা জানাতে। আদিবাসী ভাষায় (চাকমা ভাষা) শিক্ষাদানের বিষয়ে? যদি আপনি করেন, তাদের প্রতিক্রিয়া কি ছিল, এবং তারা কি উদ্যোগ নিয়েছে? ১৮. যখন আপনি আদিবাসী (চাকমা) ভাষায় শিক্ষা দেওয়ার জন্য একটি প্রশিক্ষণ বা নির্দেশনা মডিউলের জন্য অপক্ষা করছেন, আপনি কি বিস্তারিতভাবে ব্যাখ্যা করতে পারেন, শিক্ষক প্রশিক্ষণ বিভাগ বা অন্যান্য প্রাসন্ধিক কর্তৃপক্ষের কাছ থেকে আপনার প্রত্যাশা কী? ১৯. আপনি যদি একজন সিদ্ধান্ত গ্রহণকারী হতেন, তাহলে আপনি কীভাবে প্রশিক্ষকদের মুখোমুখি হতেন যারা আদিবাসী (চাকমা ভাষায়) উল্লেখযোগ্য সময় ধরে কোনো আনুষ্ঠানিক প্রশিক্ষণ বা শিক্ষণ ম্যানুয়াল ছাড়াই শিক্ষা দিয়ে আসছেন যা শুধুমাত্র "আদিবাসীদের শিক্ষাদানের কৌশল" এর উপর দৃষ্টি নিবদ্ধ করে।
		ভাষা"?
১১. নীরবতা		ন্টারভিউ গ্রহণকারীদের সহযোগী এবং প্রতিফলিত করার জন্য
১১ সামসিক	যথেষ্ট সময় থাকে এবং গুরুত্বপূর্ণ তথ্য বি	
১২. মানসিক অভিজ্ঞতা		২০. যেহেতু আপনি বিভিন্ন আদিবাসী সম্প্রদায়ের ছাত্র আছেন, তাই চাকমা শিশুদের শ্রেণীকক্ষে অন্যদের আলাদা রাখতে শেখানো কতটা সহজ বা কঠিন? শ্রেণীকক্ষে, আপনি কীভাবে এটি পরিচালনা করবেন? ২১. আদিবাসী পাঠ্যপুস্তকগুলি শুধুমাত্র পাঁচটি ভাষায় লেখা হয় বলে বিবেচনা করে, অন্যান্য জাতিগত গোষ্ঠীর ছাত্রদের বাদ দিয়ে শুধুমাত্র চাকমা শিশুদের শিক্ষিত করার বিষয়ে আপনার দৃষ্টিভঙ্গি কীভাবে চিহ্নিত করবেন যেহেতু তাদের ভাষায় বই রয়েছে?

	২২. বিভিন্ন আদিবাসী গোষ্ঠীর বাবা-মা এবং বাচ্চাদের দ্বারা অনুভূত বঞ্চনার অনুভূতি সম্পর্কে আপনি কী মনে করেন? আপনি এটা কিভাবে অভিজ্ঞতা ছিল?
১৩. অতিরিক্ত তথ্য	২৩. আদিবাসী (চাকমা) ভাষায় শিক্ষাদানের বিষয়ে আমাদের জানা উচিত বলে কি আপনি বিশ্বাস করেন?

Appendix J – Interview Protocol

Interview Protocol			
Project: Efficiency of Indigenous Primary Level Teachers to Teach in Mother			
Tongues in Bangladesh			
Time of interview:			
Date:			
Place:			
Interviewer:			
Interviewee:			
Position of interviewee:			
(Briefly describe the project)			
Questions:			
1. Start the conversation by asking about the person, his/her day-to-day life, and the			
number of years he/she has been working as a teacher.			
name of or yours not has soon working as a convenient			
2. Inform the teacher that almost all questions are related to the Indigenous textbook			
(Chakma language) and training of Indigenous teachers to teach books that the			
government education department provides.			
3. As this book is for pre-primary level students who are kids, are you trained up to			
teach them?			

- 4. Would you be able to provide a more thorough overview of the training programs you have taken to teach in primary schools?
- 5. What training have you obtained so far so that you can teach pre-primary level students in the Indigenous (Chakma) language?
- 6. Could you describe in as much detail as possible your experience of teaching students with the textbook published in an Indigenous language (Chakma language) without any formal training or teaching handbook from the education ministry or teacher training institute?
- 7. What challenges do you think you faced while educating your Indigenous students using textbooks written in their language since you have yet to receive any written teaching manual to teach in Indigenous language(s), especially Chakma languages, from any responsible government department?
- 8. How did you evaluate the progress of students without any written instruction or guideline to teach Indigenous textbooks?
- 9. Can you describe a situation in which you realized how crucial it was to have specific teacher training in order to teach in an Indigenous language (Chakma language)?
- 10. How do you think that if you are trained to teach in Indigenous language (Chakma languages) and get a teaching manual to teach in your language will assist you to contribute in students' achievements throughout their study?

- 11. Since there is no specific training or even a guideline that solely focuses on teaching in Indigenous languages, what are the kinds of activities which you personally applied in your class to make a lesson successful? Can you explain this to me in more detail.
- 12. Based on your teaching experience, what extent are satisfied as a teacher teaching Chakma child in their language without any training or teaching notebook devoted entirely to Indigenous education? What metrics did you use to determine this success?
- 13. On the basis of your teaching experience, to what extent are you dissatisfied as a teacher teaching Chakma children in their language without any training or a teaching notebook devoted solely to Indigenous education? Considering your experience, how did you determine this failure rate?
- 14. To what extent do you believe that teacher training has a significant influence in distinguishing between pre-training and post-training teaching experiences? If possible, share some of your own experiences.
- 15. What resources and guidelines have the government provided you with for teaching children via Indigenous textbooks? What is your opinion on the sufficiency of the given resources for effectively teaching these textbooks?
- 16. How is the relationship between you and the authority (colleagues, your head teacher, or government education department officials)?
- 17. What steps have you taken, based on your own experience teaching in your own language in a classroom, to let your colleagues, your head teacher, or government

education department officials know about the need for training or a teaching manual that is solely focused on teaching in Indigenous languages (Chakma language)? If you did, what was their responses, and initiatives they took?

- 18. While you wait for a training or instruction module to teach in the Indigenous (Chakma) language, can you explain in detail, what are your expectations from the teacher training department or other relevant authorities?
- 19. If you were a decision-maker, how would you handle the challenges faced by instructors who have been teaching in Indigenous (Chakma language) for a significant amount of time without any formal training or teaching manual that solely focuses on "techniques of teaching in Indigenous languages"?
- 20. Since you have students from different Indigenous communities, how easy or difficult is teaching Chakma children to keep aside others in the classroom? In the classroom, how do you handle this?
- 21. How would you characterize your views about educating just Chakma children since they have books in their language while excluding pupils from other ethnic groups, considering that Indigenous textbooks are only written in five languages?
- 22. What do you think about the feeling of deprivation felt by parents and kids from different Indigenous groups? How did you experience it?
- 23. Is there anything else you believe we should know regarding teaching in Indigenous (Chakma) language?

(Thank the individual for participating in this interview. Assure them of confidentiality of responses and potential future interviews.)

Note. From "Sample Interview Protocol" by John W. Creswell, 1998, Qualitative Inquiry and Research Design, p. 136.

Appendix K – Organizational System for Data Analysis

Organizational system for data analysis.

General Data Analysis Strategies Advanced by Select Authors				
Analytic	Bokdan & Biklen	Huberman & Miles	Wolcott (1994b)	
Strategy	(2005)	(1994)		
Sketching ideas				
Taking notes				
Summarizing				
field notes				
Getting feedback				
on ideas				
Working with				
words				
Data display				
Identifying				
codes				
Reducing				
information				
Count frequency				
of codes				

Note. From "General Data Analysis Strategies Advanced by Select Authors" by John W.

Creswell, 1998, Qualitative Inquiry and Research Design, p. 141.