

Primary School Teachers' perceptions of differing types of assessments to improve
student learning in Papua New Guinea

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Thesis submitted for the fulfilment of the requirements
for the degree of Doctor of Philosophy

Victoria University, Australia
Institute for Sustainable Industries and Liveable Cities

February 2026

Abstract

Across Papua New Guinea, primary school teachers play a vital role in educating children, in both rural and urban schools. Dedicated education professionals work hard in classrooms often under tough conditions and harsh environments that test their resilience. Yet they persevere.

One significant challenge that these teachers face is educational reforms that are ever being implemented and this is particularly notable in relation to student assessment. In the Papua New Guinea educational system, assessment practices significantly influence student learning. The teachers are solely responsible for both teaching and measuring their students' learning, using formative and summative assessments in various primary schools. Concerns have been raised that teachers' views were not given greater consideration by those educational authorities making decisions that will affect the achievement of academic goals. During the shift from an outcomes-based to a standards-based curriculum, teachers had limited input into curriculum and assessment development.

This study explores primary school teachers' understanding of different assessment types and how these assessments should support students' learning and life skills at the Grade 6 level in Papua New Guinea. A qualitative case study using participatory action research was conducted, to gather data on the ways in which assessments are implemented in two primary schools. Four teachers were purposefully selected: two from a rural school (Samill) and two from an urban school (Kofaik). Extensive school-based data were collected during fieldwork in 2023, through semi-structured interviews, classroom observations, and document analysis. These informed a comparative analysis of teacher efficacy in assessment practices. Analysis was framed by Freire's critical pedagogy, culturally relevant pedagogy (Ladson-Billings, 1995), and social meliorism (Pinar, 2012).

Analysis revealed that while teachers understood summative and formative assessment theoretically, they lacked practical expertise in assessment *as* learning. The accurate practical application of this assessment method as a learning tool was absent from their classrooms. The findings of this study indicate that culturally relevant forms of assessment, such as: storytelling, songs, and oral presentations, all deeply embedded

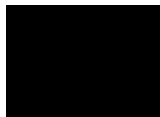
in Papua New Guinea's oral traditions, would be highly beneficial as tools for learning and should inform future curriculum and assessment re-design.

Declaration of authenticity

I, Erita Yawi, declare that the Doctor of Philosophy thesis entitled *Primary School Teachers' perceptions of differing types of assessments to improve student learning in Papua New Guinea* is no more than 80,000 words in length, including quotes and exclusive of tables, figures, appendices, bibliography, references and footnotes. This thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work.

I have conducted my research in alignment with the Australian Code for the Responsible Conduct of Research and Victoria University's Higher Degree by Research Policy and Procedures.

Signature:



Date: 02/02/2026

Ethics declaration

All research procedures reported in the thesis were approved by the Victoria University Ethics Committee: Approval number HRE23-002.

Acknowledgements

First of all, I acknowledge God the Father, the source of everything I achieve in Life.

I would like to thank the many people who have supported me throughout my PhD studies at Victoria University, Melbourne. It is with my deepest gratitude and appreciation that I thank them for their support, advice, and guidance.

I am grateful to my sponsor, the Australia Awards Scholarship through the Department of Foreign Affairs and Trade, Australia. This prestigious scholarship has enabled me to study in Australia for four years, from March 2022 to March 2026. I sincerely thank Johnny Ko, the International Student Contact Officer at the Australia Awards Scholarship, Victoria University. It was a blessing to have you. Your support and advice were invaluable when I felt I could not take another step. You encouraged me to persevere that motivated me to come this far in my studies.

I am genuinely and deeply grateful to my principal supervisor, Professor Mark Vicars. Thank you for trusting me and accepting my draft research proposal while I was still in Papua New Guinea in 2021, which enabled me to pursue my PhD at Victoria University. I am grateful for your assurance that we will reach the end of this journey together. You have served many roles—as my supervisor, mentor, and editor throughout the process of writing this thesis. Without your guidance, I would not have been able to complete this journey. Your challenging feedback and high expectations have expanded my knowledge and skills in research, helping me understand the context where knowledge is created, practised, and understood by everyone in the immediate time, space, and orientation. New knowledge is not made in a vacuum.

I am also grateful and recognise the contributions of my associate supervisors, Dr Greg Neal, Dr Sarah Tartakover, and Dr Maryanne Panu, to my journey. Although you contributed briefly, you added your voices to this thesis. Thank you also to Associate Professor Janine Arantes and Dr Amanda Muscat for your support in the final stages of my thesis.

I greatly appreciate the contributions and suggestions of my milestone panel members, Chairperson Professor Marcelle Cacciattolo, Dr Samara van Toledo, and Dr Kim Senior. Your guidance for all my milestone presentations has facilitated improvement and achievement, enabling me to bring my narratives to life in each

chapter. Those stories provided a strong foundation for my insider positioning in this study. Thank you all.

Thank you to Dr Sharon Lierse for providing editorial work for my thesis.

I also want to thank someone special whom I met in Melbourne, who made me feel at home and ensured I was okay during my first visit and throughout my stay: Dr Belinda Nemec and her late partner, John Haasz. Belinda, thank you for formatting my thesis and for providing academic support. I greatly appreciate your hospitality and kindness.

Not forgetting all my friends and colleagues whom I met during this journey. Dr Annemarie Agborchi, Beautlyn Eliap, Brian Apa, Daisy Rose Sipiti, Emellia Anderson, Michael Taia, Rose Begani, Sandra Widjaja, Sophia Tuna, Razeena Fathimath and Ruirui Xing. Thank you for your words of encouragement and for making time to support each other through our challenges at Victoria University.

Special thanks to the four participants in my studies—Noko, Rami, Waka, and Kavi and their students; without your generous contributions, I would not have been able to complete this PhD thesis. Your narratives have shed light on the insights primary school teachers have about assessment and how it has affected their efforts to improve students' learning and progress. Thank you all.

I acknowledge my family, both immediate and extended, and my friends who have supported me in various ways. Special gratitude goes to my big sister Augusta Wapi Kamare. When I wanted to give up, you encouraged me to keep going. Thank you for all the support.

Thank you to my sons Shawn Gabby, his partner, Loa Amo, and Jeremeel Gabby. I have not forgotten Karen Gabby and Cain Gabby. I appreciate your unwavering patience, your enthusiasm for my pursuit of this PhD.

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Chapter 1

Background to the study

Prologue

Erita! Bring yourself into your thesis! Have you considered a vignette narrative style of writing?

Panel recommendation, Mid-candidature presentation

Looking at them through my glasses, I thought, 'What! You barely know me! I am going to fall dead digging into the parts of my life that I wanted to leave behind. Bringing in my emotions will break me into pieces. I do not want to do that!'

I was frightened and so scared of taking on this new writing style. I nervously said, 'I do not know about that writing style.' With fear, restlessness, and imposter syndrome, my heart jumped; my memories were overwhelming and overpowering. I imagined standing in a primary school classroom, my comfort zone; looking into my students' eyes had given me strength, and I pretended everything was okay. I am trying to hold on. My past was interwoven with my present dream of completing a Doctor of Philosophy (PhD), which I never thought was achievable. I still had doubts.

Beginnings: Why this study?

Growing up in a traditional Papua New Guinea society, I was actively involved in teaching and, learning with storytelling and the oral local vernacular as ways of knowing. This was in the Boiken language that is one of the 800 languages of Papua New Guinea. It is one of the most popular languages in Papua New Guinea society is spoken, in most parts of East Sepik Province and constituted one of many different dialects.

I learnt all the skills of growing up into womanhood and other cultural obligations required by my culture to act and behave like a woman. These were taught to me by other older women I associated with, such as aunties and grandmothers. Taught by the elders in situated learning environments such as gardens, rivers, swamps, valleys, and mountains, which were usually informal. The immediate family units taught their children basic socio-cultural norms and belief systems, preparing them to face the reality of life in society.

Nearly all Indigenous learning and knowing was done through observation, imitation, and demonstration, as well as mistakes and failures encountered along the way. I was sometimes punished due to lack of concentration. I was then told to repeat the process before acquiring specific knowledge and skills, such as making particular bilums specifying unique arts and patterns for carrying things. I was expected to become an expert so that the skills learnt could be passed on to the next generation. There were no written task criteria, descriptions, or marking rubrics, like in today's assessment. Rather, we were verbally told, instructed, and guided on how to achieve the outcomes. It extended into the wider community where other skilful elders in their segregated environments under strict supervision, observations, and demonstrations taught the younger males the skills of fighting and weapon creation while teaching them to behave appropriately in public and towards others in the community. Knowledge and skills were obtained through oral feedback and redoing of the failed skills until it was passed through the elders' approval. Most of the learning was hands-on and based on my life experiences as a traditional Papua New Guinean woman during and after the holombo stage where young men and women undergo different initiation ceremonies before society welcomes them into their tribes and clans/communities. They are then regarded as adults ready to assume gendered roles and responsibilities.

Teaching traditional knowledge is a demanding and crucial element to acquire. The village elders establish oral rules and observe the acquisition and demonstration of fundamental knowledge and skills of hunting, fishing, gardening, building houses, making arts, crafts, and carvings under the close supervision of the elder- leaders males and females of the wider community and the family.

Introduction

This study focuses on how primary school teachers develop and conduct assessments and on issues of equity in designing assessments for students from disadvantaged backgrounds, with the aim of bridging gaps between advantaged and marginalised groups of students. In this chapter, I present the motives that underpin this study, articulate its aims and significance and present the research questions. I provide an overview of East Sepik Province, where the study was conducted, and a brief outline of the context of Papua New Guinea's education system.

Assessment is integral to teaching and learning; it is through assessment that teachers can determine whether they have taught effectively and if their students have learnt the information. In my experience of observing how assessments were conducted in Papua New Guinea, it seemed that teachers tended not to encourage and challenge students to develop critical thinking and reasoning skills which are essential for their lives after school. Implementing authentic assessment experiences to measure student learning is vital because, in Papua New Guinea, students' assessment results in primary and secondary school guide their career pathways. Teachers help students make informed career choices based on these assessments.

In 2019, I taught the unit 'Assessment and Planning' for the fifth time to 200 second-year primary school pre-service teachers. This was in the Diploma of Education course at my teacher training college in Papua New Guinea. The unit aimed to create opportunities for pre-service teachers to share ideas and construct teaching and assessment plans relevant to Grades 5 and 6 in Papua New Guinean primary schools. I taught the students the processes and procedures of the assessment cycle, including the specified formative and summative assessment types, within the expectations of the Papua New Guinea standards-based curriculum.

One of the assessment components in the teacher education course was a project in which pre-service teachers were required to design two assessment tasks for students in Grades 5 and 6. One task involved constructing a written test aligned with the six cognitive levels of Bloom's Taxonomy: Remember, Understand, Apply, Analyse, Evaluate, and Create (Bloom, 1956; Krathwohl, 2002); and, the other required the development of a work-integrated learning project. Within this project, pre-service teachers were required to identify an appropriate topic and develop lesson content for a four-week module. In this module, they were expected to design authentic assessment tasks that enabled students to draw on their imagination to construct responses to the learning intentions articulated by the pre-service teachers.

Much time and effort were spent developing and explaining the assessment tasks to the pre-service teachers. As the pre-service teachers were busy planning their assessments, I waited to receive their tasks to determine whether they had created authentic and meaningful assessments that reflected the students' real-life experiences and, when used appropriately, promoted their ways of living and knowing.

After the task had been marked, just over half the group, about 100 of the 200 pre-service teachers, did not demonstrate a secure grasp of the underlying principles of constructive assessment. The main problem I identified was the students' difficulty in connecting theory to practice and in understanding Bloom's Taxonomy to create relevant assessment questions.

Most of the questions they had used to construct test papers were knowledge, comprehension, and application questions; they had problems creating higher-order questions such as analysing, synthesising, and evaluating. My expectations that the pre-service teachers would have had a solid understanding of the basic requirements for creating and conducting assessment tasks appropriate for the chosen grade levels, and had grasped the assessment processes and procedures, were not realised.

Situating the data-informed pedagogical model in my assessment practices

Assessment practices for students from disadvantaged backgrounds can help bridge gaps between advantaged and marginalised groups of students in Papua New Guinean schools. It can play a pivotal role in providing opportunities for underprivileged students to find their place in the classroom by embedding contextual and culturally relevant assessments.

Throughout my career as a teacher in primary schools, I had believed in my efficacy and expertise in designing and delivering assessment tasks. I updated my teaching content annually by reviewing recent research on various assessment forms, and I continuously reflected on my teaching practices to make informed curriculum decisions that would benefit my students. For more than twelve years as a teacher educator, I drew on a model of the teaching and learning cycle that I considered effective with pre-service teachers.

This model explained how teachers should understand and perceive teaching and learning as a cyclical process with various stages. They first planned their lessons, then taught them, and finally assessed students' learning using multiple methods, such as tests and assignments. However, teaching the assessment unit to the aforementioned particular group of 200 students really tested me, and I questioned my efficacy and self-worth as an educator. This experience left me feeling disappointed and full of self-doubt. Looking back, after 15 years of specific primary teaching and a cumulative 27

years in the teaching profession, I began to consider that primary school teachers in Papua New Guinea might also have difficulties conceptualising classroom assessments.

This reflection led me to question whether teachers with significant years of teaching experience would know better ways of conducting classroom assessments. I began to consider a potential research topic that would investigate whether teachers in primary schools in Papua New Guinea were blindly using the pre-planned assessment tasks from the syllabus without reflecting on the creativity and meaning in assessments. As I contemplated how to elevate primary school teachers' knowledge and skills in classroom assessments, I considered how improvement of student learning and progression from one grade to another, and better ways of creating authentic and engaging assessments could be achieved. To contextualise my proposed study, I drew upon the Australian data-informed pedagogy model. Here, I recreated the teaching and learning cycle used by the New South Wales Department of Education which has four steps: 1) analysis for decision making, 2) planning and programming, 3) classroom practice, and 4) assessment, feedback and report, which the teachers use to create meaningful and authentic lessons for their students (Department of Education, New South Wales, 2025).

I modified the learning cycle to create a five-phase model, which I used as the data-informed pedagogy in this study (see Figure 1.1 below). The data-informed pedagogy I developed has a 5-phase cyclical model as effective assessment practices are not a stand-alone process, with evaluative reflections aimed at teaching adjustments as part of an interrelated cycle. The restructure of the teaching and learning cycle, I considered, would work better for Papua New Guinean teachers to understand and know how data informs their practices.

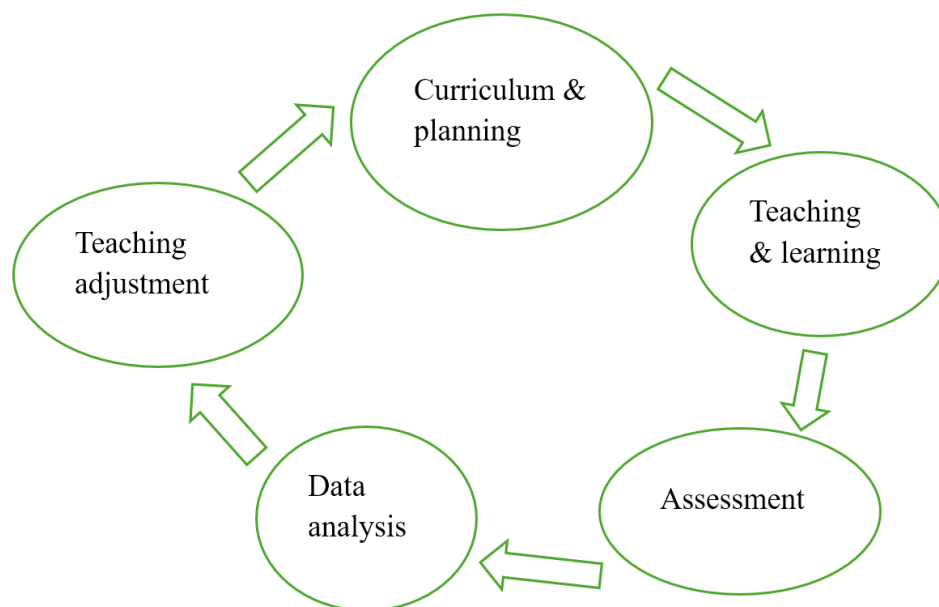


Figure 1.1 Data-informed pedagogy: five-phase model

Based on and derived from the Department of Education (DoE), New South Wales (NSW), 2025

Through the redeveloped data-informed pedagogical model, my aim was for teachers to reflect on how effectively they designed and presented assessments. Situating assessment as a cyclic process was vital knowledge for the participant teachers (Black & Wiliam, 2018). To understand how aspects of formative and summative assessment coincide, I proposed that identifying, gathering, and interpreting students' assessment information would enable participant teachers to learn about the students' competencies and learning needs (Monteiro et al., 2021).

Aims of the study

In this study, I explore Papua New Guinean primary school teachers' perspectives and understandings regarding student assessment practices. I sought to investigate how the assessment of teaching and learning was being conducted, the types of assessment data gathered, and the extent to which teacher professional development could improve assessment practices in Papua New Guinean primary schools. The focus on how primary teachers' knowledge of formative and summative assessment practices could be developed in situ informed the methodological approach. I employed a co-production model for collaborating with teachers to collect data. Collaboration was crucial to my study because I aimed for the participating teachers to take ownership of the new

knowledge that would be produced and to feel confident in its implementation. Working with the teachers in a co-production mode facilitated co-creation in a community of practice (Lave & Wenger, 1991). My research questions, which had emerged from my own experience as a teacher educator in Papua New Guinea, sought to better understand the role assessment plays in the teaching and learning cycle. I developed the following research question and sub-question, which framed the substantive focus of my study.

Research questions

This study was guided by a central question and four supporting questions, which aimed to delve into primary school teachers' understanding and perceptions of classroom assessments in Papua New Guinea.

Main question:

To what extent did the teachers understand how to utilise a range of assessment practices in primary schools to improve student learning?

Sub questions:

- a) What were Papua New Guinea's primary school teachers' perceptions about using differing types of assessment in teaching and learning?
- b) How did applying differing assessment types affect student learning in Papua New Guinea primary schools?
- c) What existing assessment methods did Papua New Guinea teachers apply to review student learning, and how did they utilise this data in their teaching?
- d) How could professional development assist teachers in improving their assessment practices?

Significance of the study

This study is intended to contribute to knowledge of how Papua New Guinea teachers embrace assessment practices that are contextual to their cultural ways of knowing and understanding. In this study, I consider how teachers' professional development could improve student learning in response to Papua New Guinea's Vision 2050 and long-term educational goals of raising education standards (Matane, 1986; NDoE, 2010b). This study was intended to assist teachers in developing knowledge and skills about practical assessment, which later could be utilised through teacher professional development. Teachers, lecturers, instructors, facilitators, and caretakers are all vital

assets the education system relies upon to achieve its developmental goals (Gutmann, 1999; NDoE, 2020).

By identifying the significant factors and challenges affecting assessment processes and procedures at the senior primary school level, I hoped to better understand how teachers manage and overcome assessment challenges in their daily teaching and assessment schedules. In addition to possessing appropriate knowledge and skills, curriculum implementers must also demonstrate the attitudes expected of their role. They must be resourceful, intellectually brilliant, creative, and innovative to accept curriculum changes that best suit the needs of Papua New Guinea's general school-aged children population (Kekeya, 2014; Lingawa, 2013; Paraide, 2014a). Teachers' understanding and knowledge about classroom assessment processes and procedures in Papua New Guinea are unclear, and it is a significant concern for the National Department of Education (NDoE, 2020), as stated in the National Education Plan 2020-2029.

My study goals were aligned with the intentions of the Papua New Guinea National Department of Education (NDoE), National Education Plan 2020-2029 (2020) which seeks to establish a systematic assessment schedule for Papua New Guinea teachers. Teacher professional development is vital for equipping teachers with the knowledge and skills necessary for curriculum, assessment, and for preparing them to effectively manage school assessment processes. The quality and duration of training provided for pre-service teachers to prepare them for teaching the new Papua New Guinea curriculum, which has transitioned from an objective-based curriculum to an outcomes-based approach, and now to a standards-based one, following the curriculum innovation in 2017, were insufficient. The shift from outcomes-based curriculum to standards-based curriculum was justified through a narrative that sought to address the developmental needs and demands of a changing Papua New Guinea.

The revised National Education Plan 2020–2029, titled 'Achieving Quality Education for All' and aimed at leaving no child behind, seeks to enhance educational standards. The plan articulates nine primary outcomes on which the Papua New Guinea Education Department now focuses.

The outcomes of Areas 4 and 5 align with my study and are outlined below.

i) Outcome 4 ‘Teachers and Teaching’, that there will be sufficient well-trained and qualified teachers to meet student demand with resources and support at schools to allow for quality teaching and learning to take place” (NDoE, 2020, p. 1). Focus area 4 has a special consideration on the importance of providing adequate in-service programs for teachers especially the teacher professional development as a strategic means of upgrading and preparing teachers to implement the new standards-based curriculum.

ii) Outcome 5 ‘Quality Learning’, “that an appropriate curriculum and assessment system is in place to allow learners, supported by relevant and sufficient learning materials, to acquire globally comparable skills and knowledge, certificated when appropriate, required for each to lead a productive and healthy life and contribute meaningfully to national development” (NDoE, 2020, p. 2). Focus area 5 is a great concern for the government as classroom testing or assessment remains a weakness and efforts to alleviate the problem require significant funding.

The findings of this study are intended to contribute to new knowledge by ensuring that teachers and students’ voices are acknowledged and valued in the data-informed pedagogical approach to teaching and learning. This allows teachers and students to engage in activities and collaborate in teaching and learning, ensuring that no one is left behind in the educational journey. The National Department of Education and its affiliates, including non-governmental organisations, will benefit from the findings of this study, as it encourages the implementation of appropriate educational changes through various meaningful assessment practices that ensure assessments are culturally relevant and authentic.

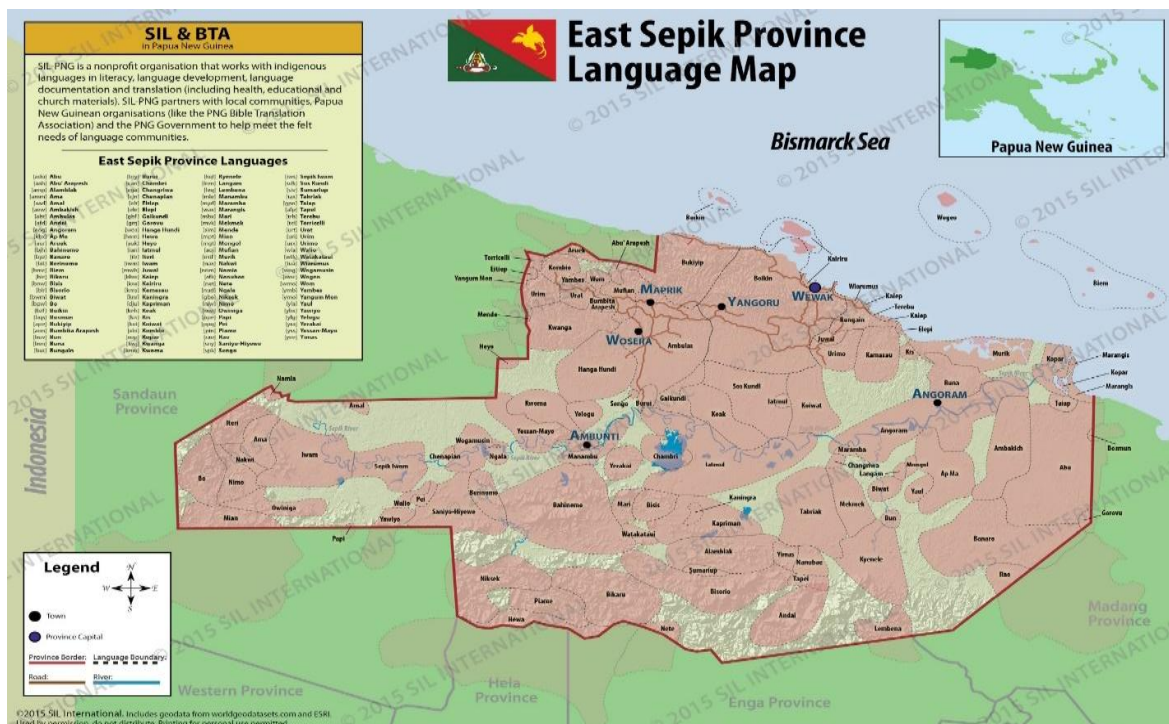
East Sepik Province and its population

In becoming an advocate for better education and curriculum reform in Papua New Guinea, it was necessary to locate the local contexts in which students learn and teachers teach. The participants in this study were four Grade 6 teachers from two different primary schools in the East Sepik Province of Papua New Guinea. Two teachers were from a rural school, and two were from an urban school. The schools were chosen to have a distributed representation of teachers’ voices from urban and rural settings. Sometimes, in Papua New Guinea, teachers’ basic needs were

overlooked, and their views were less respected, which influenced the quality of their efforts in teaching and learning (Goro, 2021; Kukari, 2011).

When working, I also travelled and listened to the public outcry on the streets and towns of Papua New Guinea. I saw many negatives to a struggling education system aiming to produce quality in its Vision for 2050. Walking to work every morning, I saw primary school children flooding the school gates, walking, limping, running, and strolling with various school bags, bilums (wool or other fibre string bags), waist bags and plastic bags. Looking at their faces, I wondered why these kids attended school when the education system was a failure. What and where was the problem? Did teachers fairly unpack those school bags? Was every child thoroughly assessed? If so, how effectively? With a heavy heart and sometimes weakened by worrying thoughts, I passed them every day with my son, who said, *‘Mama! I feel sad for these small kids.’* And he asked, *‘Would these kids be employed after education?’* I stopped and thought about their current schooling life. I was silent, but in awakening my thoughts, I was resolved to work hard to produce exceptional teachers from the many I taught.

Papua New Guinea has twenty-one provinces. The capital of East Sepik Province is Wewak, one of the four provinces of the Momase region of Papua New Guinea. It shares borders with Madang Province in the north and West Sepik Province in the west. Mountains and fast-flowing rivers, including the mighty Sepik River, characterise East Sepik’s physical geography. The province contains some of the most remote and challenging areas in Papua New Guinea, which have remained isolated from the outside world for decades. East Sepik Province has six distinct and densely populated districts: Wewak, Angoram, Yangoru, Maprik, Drekikier, and Wosera (Kukari et al., 2012). See Figure 1.2 below.



required to begin primary school and remain until they complete primary schooling; however, this is not enforced by the government (NDoE, 2010a; Rena, 2011).

Many school-aged children in East Sepik Province are not engaging in productive activities. There are several reasons why these children are not in school, including poverty, which has interconnected factors such as school fees, food insecurity, and health issues (Department of Foreign Affairs and Trade, 2009; Uren, 2024).

A 2023 media release from the National Research Institute (NRI) highlights that “poverty in urban centres of Papua New Guinea is a concern”. Poverty is a significant problem in Papua New Guinea, including East Sepik Province. It hinders development and creates barriers, such as determining who attends school and completes schooling successfully versus those who do not, between the advantaged and disadvantaged populations.

At the 2024 meeting of Asia-Pacific Economic Cooperation (APEC), the World Bank reported to world leaders that, despite Papua New Guinea being a resource-rich country, an estimated 40 per cent of the population lives in poverty, with only 20.9 per cent having access to electricity. Most people lack daily access to water (APEC, 2024). Although the government announced a policy of free education for all primary school children, including disadvantaged children, since the late 1980s, this policy has still not been effectively implemented. It remains merely a policy document without practical application. Although the policy statement is intended to provide free primary education in Papua New Guinea, it is not being enforced, as parents are still required to pay school fees and other costs associated with their children’s education. As a result, only the more privileged children can access all levels of education, while the disadvantaged are left behind. This creates an inequitable educational landscape for most students from poor urban and rural backgrounds in Papua New Guinea.

The primary school curriculum is distributed on a term-by-term basis. At the end of the academic year, assessment is operationalised as both a measure of judgment of students’ achievements and teachers’ performance (Paraide, 2014b). Assessment is an integral part of any curriculum, and this study examines teacher perceptions of assessment as essential to student learning. East Sepik Province had not done well in its grade examination. Figure 1.3 below shows the examination pass rate for each district regarding Universal Primary Education in East Sepik Province (NRI, 2021).

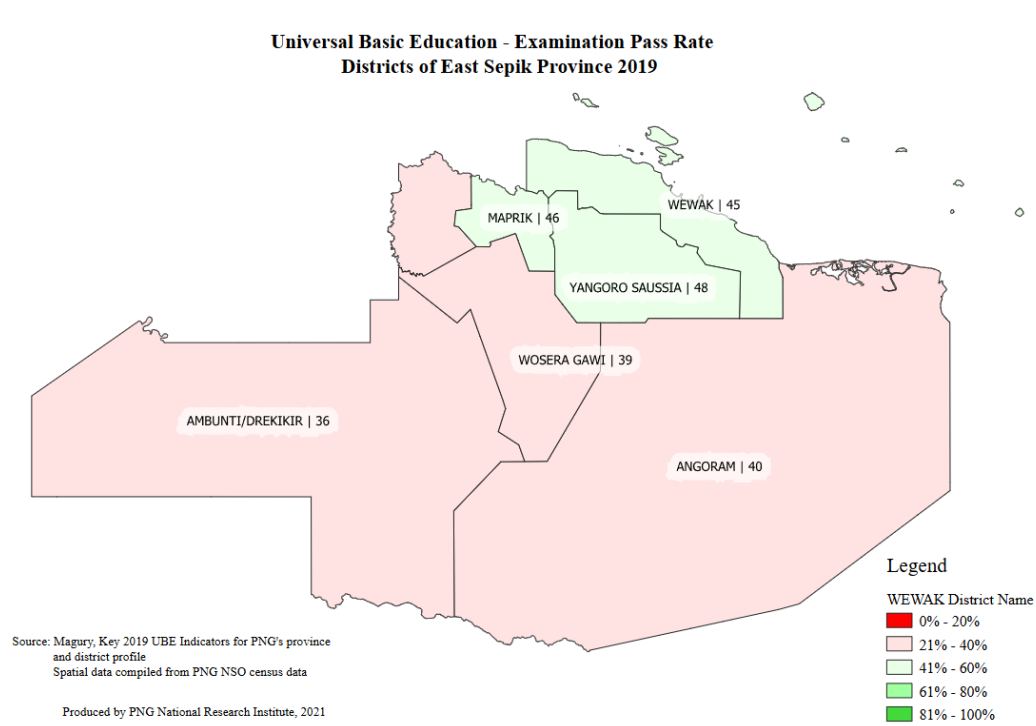


Figure 1.3 Universal Basic Education: examination pass rate in East Sepik Province, 2019 (NRI, 2021)

The Grade 8 evaluative results showed that East Sepik Province needed help conducting assessments effectively in primary schools.

Day-to day operations of Papua New Guinea primary schools

Primary schools in Papua New Guinea are operated mainly by the government and church agencies (Education News, 2014). The National Department of Education, in collaboration with the Provincial Education Board makes informed decisions regarding teacher postings and other matters affecting teachers, including their welfare and travel arrangements. All decision-making concerning establishing new schools, teachers' postings, curriculum materials, and other resources for primary schools is shared between the National Department of Education and Provincial Education Boards (NDoE, 2010b).

Teachers apply for teaching positions annually by writing an expression of interest letter to the posting committee. Writing an expression of interest letter is not a formal way of applying for teaching positions (Kukari et al., 2012). This sometimes causes hiccups at the beginning of the academic year due to teachers not being posted to school early, and this subsequently causes setbacks in planning for primary schools.

Some primary schools do not resume teaching duties until mid-term of every first term of the academic year. Nearly all rural schools lack proper educational resources, for example, textbooks, reading materials, teacher guides, syllabi, teaching and learning materials for teachers and students (Rena, 2011). The Internet and computers are a resource that only some urban schools benefit from and are very expensive to sustain in some schools. This affects many children and causes them to leave school without proper completion of primary schooling because their schooling is boring and does not relate well to their life experiences. Research has shown that dropout rates are higher in remote primary schools than in urban schools in the province (Kukari, 2012; Rena, 2011). The dropout rates and percentages for the population could not be identified due to the limited research available to state this aspect clearly. However, the World Bank Group Education Report (2024) stated that in 2018, there was a 13 per cent dropout rate for primary school students in the whole of Papua New Guinea, and this had nothing to do with the final examination; it concerns the students dropping out anytime during their schooling (World Bank Group Education, 2024).

Papua New Guinea education system: the old and new structures

The education system in Papua New Guinea is based on a philosophy that promotes integral human development in all aspects of a child's development. It also emphasises fair and equal education opportunities for all its citizens (Edwards, 2015; Matane, 1986). The system has undergone massive changes since 1993. Drawing on research by Ogigo (2010) on curriculum reform implementation projects from 2000 to 2006, Kukari (n.d.) notes that the Papua New Guinea education system is currently undergoing a curriculum shift.

In 2017, the government called for a curriculum change, because the outcomes-based curriculum was deemed to be failing in Papua New Guinea. Nevertheless, primary school teachers and curriculum implementers transitioned to a standards-based curriculum without fully grasping the reasons for the change. This resulted in teachers being unprepared to implement the curriculum and assessments effectively due to their limited knowledge of the new content (Goro, 2021; Paraide, 2014b). As highlighted in the National Education Plan 2020–2029 (NDoE, 2020), it is clear that, there has been little consultation with teachers, nor has there been adequate trialling of the content.

The Papua New Guinea education system has undergone numerous changes in its structure and curriculum over time to meet the demands of its citizens (Ogigo, 2010). The curriculum change occurred so abruptly that most teachers were confused about moving from an outcomes-based curriculum to a standards-based curriculum. Table 1.1 below shows the current 3-6-4 structure in the supposedly abolished outcomes-based education structure, and the more recent standards-based 1-6-6 structure, which is yet to be fully established.

Table 1.1 Papua New Guinea Education Structures: old and new (adapted from NDoE 2020, p. 13)

Student age (years)	Current structure 3–6–4		New structure 1–6–6		Levels of education 1–6–6
	Sector	Grade		Sector	
18	Secondary (four years)	Grade 12	Grade 12	Secondary (six years)	Secondary sector Secondary school: Grades 7–12 (Senior High School: Grades 11 & 12; Junior High School: Grades 7–10) National High Schools: Grades 11 and 12 (become national schools of excellence), flexible open & distance education (FODE) sector
17		Grade 11	Grade 11		
16		Grade 10	Grade 10		
15		Grade 9	Grade 9		
14	Primary (six years)	Grade 8	Grade 8	Primary (six years)	Flexible Open This sector Grades 7–12 (will also offer matriculation) Technical and vocational education and training sector Vocational centres: Grades 8, 10 & 12 (will offer National Certificate 1 and National Certificate 2)
13		Grade 7	Grade 7		
12		Grade 6	Grade 6		
11		Grade 5	Grade 5		
10	Elementary (three years)	Grade 4	Grade 4	Pre-school (one year)	Primary sector Primary school: Grades 1–6 Pre-school sector preschool: preparatory grade (Kindergarten 1 & 2 by 2023) Special education Includes all sectors
9		Grade 3	Grade 3		
8		Elementary 2	Grade 2		
7		Elementary 1	Grade 1		
6		Elementary Prep	Preparatory		
4 & 5	Public–private church community partnership		Kindergarten 1 & 2	Early Childhood (two years)	
Total years of schooling	Thirteen years		Thirteen years		

The new education structure of 1-6-6 (one year in preschool, six years of primary school, and six years of secondary school) has not yet been fully implemented, because the early childhood component of the structure is not clearly established in the system. For that reason, most children miss out on the very fundamental part of their early learning, which makes them unable to enter the primary level of education (NDoE,

2002; Rena, 2011). The old structure of outcomes-based education, with three years in elementary school, six years in primary school, and four years of secondary education, is still in operation.

Even though teachers are able to conduct assessments, internal and external factors may affect assessment practices. These include the location of schools, the state of classrooms, socio-cultural issues, the medium of instruction (English), teacher-centred lessons, teacher preparedness to teach, student preparedness to learn, ongoing education reforms (including dual structures and curricula), and the transition of teachers and students from the previous curriculum to the reformed curriculum. The data clearly shows that more is required to efficiently do assessments in Papua New Guinean schools, considering new ways of doing it from a cultural and global perspective.

Thesis overview

This thesis consists of nine chapters. In Chapter 1, I highlight the study's purpose and significance and introduce the research questions and the rationale for their development that guided the data gathering for this study. I also present the brief background and the study's context of East Sepik Province, where the study was conducted, its population and Papua New Guinea's current education system, which provides an overview of the stages of education in the country.

In Chapter 2, I present the outline of the theoretical perspectives relevant to this study. I examine the theory of culturally relevant pedagogy, its contributions, and how it informed my study of Papua New Guinea's indigenous ways of learning and knowing in a multicultural and linguistically diverse country with more than 800 languages. I discuss the critically transformative paradigm and highlight its significance in implementing effective, transformative changes among teachers' understanding and conceptualising of the assessment process. I outline the application of Freire's critical theory in pedagogy of the oppressed which was considered vis-a vis the negotiation of power and equality in the Papua New Guinea school system. I articulate how social meliorism curriculum theory emphasises education as a tool for social reform and improvement. It focuses on addressing societal problems and equipping students to become responsible, engaged citizens and knowledgeable workers by indicating its

credentials in making curriculum and assessment a connected aspect of teaching and learning and vital to any education system.

In Chapter 3, I present the assembled literature and research findings from a global context to consider teachers' perceptions about assessment and how it affects their teaching and consequently has impacts on student learning. I outline my understanding of the significant components of assessments in primary schools to address the ways in which teachers understand and utilise differing perceptions, understandings, and knowledge about student assessment, in the Papua New Guinean education system.

In Chapter 4, I describe the research methodology and outline the research paradigm and design. A participatory action research approach using purposive sampling of four Grade 6 teachers recruited from Samill and Kofaik Primary Schools. Kofaik Primary School was one of the five most prominent urban schools in Wewak, the capital of East Sepik Province, and was chosen as a fieldwork site because, academically, most of its students do not perform well on the end-of-primary-education Grade 8 examination and Samil primary school, the rural school, was one of the most prominent schools in the Wosera district of East Sepik Province.

In Chapter 5, I provide the ethnographic location, a brief history of Samill Primary School, its administrative structure, and the traditions and cultures that make the school a unique setting for the research. The emic and etic negotiations that foster deeper cultural understanding in the specific context of Samill Primary School are discussed.

In Chapter 6, I present the ethnographic location of Kofaik Primary School. I highlight the geographical features and provide a brief history of the school, its administrative structure, and the traditions and cultures.

Chapter 7 presents a cross-case analysis of the findings of the two case studies. This analysis was guided by Haraway's (1988) theory of situated knowledge, which suggests that knowledge is embodied and influenced by an individual's positioning, as well as by the social, cultural, and political influences of the setting. Knowledge is created through shared experiences rather than from a vacuum. The data analysed includes themes derived from the interviews conducted based on the four research questions that guided the study, as well as from field notes and lesson observations. The

research, conducted in urban and rural primary school settings, is analysed and presented, revealing similarities rather than differences.

In Chapter 8, I discuss the findings, focusing on the primary research question: To what extent do primary school teachers understand the various types of assessment that can be used to enhance students' learning? The findings provide insights into the current state of assessments in primary education and how they can inform future improvements, ultimately shaping the future of primary education in Papua New Guinea. Drawing from Papua New Guinea's National Education Plan 2020–2029 (NDoE, 2020), Focus Area Five, which emphasises quality learning that requires an appropriate curriculum and assessment system for students in primary schools, my study was timely in addressing the assessment aspect of that educational focus. This chapter draws on the theoretical perspectives of the study to providing a conceptual context for the study.

Chapter 9: This chapter summarises the research study concerning teachers' understandings and perspectives about assessment and how assessment affects children's learning in primary schools. It concludes the thesis by summarising key research findings related to the research questions and aims and discussing their value and contribution. It highlights the limitations and challenges experienced by the researcher while providing recommendations for stakeholders, including the teachers, school administrators, National Department of Education and the non-governmental organisations. Finally, it offers suggestions for future research and concludes with a final summary of the whole thesis.

Chapter 2

Conceptual framing of the study

My own childhood experiences

I entered primary school at the age of eight in 1978 and my experience of a formal learning environment in Grade 1 was a shock. Formal education was structured and had systems in place completely different from my ways of learning. I was curious to discover the uncertainties of having both a classroom and a teacher to take me through modern learning, so I stayed on. The smell of the teachers' clothes made me lose concentration. Seeing and calling the name "teacher" for the first time surprised me. I had to leave school several times before getting used to being taught by that stranger with whom I did not share cultural knowledge, even though she was Papua New Guinean. I was shaking inside, and my sense of self-worth was disrupted. I was not recognised in a class of 30 children; I felt non-existent because of my cultural background, and my socio-cultural space outside the classroom was ignored. Some of my classmates were older than I was, and the disconnection from my own culture, leaving my parents, and staying in school for longer hours (8:00 am to 3:00 pm) was too much and exhausting for me.

The experience of Indigenous learning, with its flexible ways, contrasted sharply with this new environment. Learning in my culture was all about connection and relationship development and was confined to people I know and relate to. I had freedom of expression with fewer rules and routines to follow. In this new learning space, I had to abide by stringent regulations in the formal school system, and learning to speak a foreign language frightened me. I did not know a word of English before entering the Western school system, so I questioned my ability to learn in new, systematic ways. Mispronunciation certain English words while learning the alphabet made me a laughingstock. Teaching me in a foreign language signals a need for culturally relevant pedagogy to navigate teaching that unpacks the bags of cultural knowledge I came to school with (Ladson-Billings, 1995). I was living in two different worlds and walking blindly, trying to figure out what was happening in my new world of uncertainties. My headspace was bombarded with the teacher's monotonous voice, issuing orders, footsteps clomping, and rulers banging on the blackboard as she taught. She was my world and the centre of everything in class; my voice was never heard, with the exception of only a little during singing, as I loved singing. When questions were

asked, only one or two children responded, those with at least an English vocabulary at that age. My lack of opportunities to question and for the teacher to connect with my prior knowledge was missing in school. To effectively dialogue with the teacher was limited. This exemplifies the lack of transformative paradigm (Giroux, 1985).

Bilingualism was not practised as teachers were ordered to use English as the medium of instruction: no other languages were promoted during my time at primary school. Even though I knew Tok Pisin (Papua New Guinea's primary language of communication in social interactions) it was forbidden. Rote learning was the dominant instructional model in the pre-planned curriculum, which was objective-based. Coming from an average socio-economical background, I saw myself as an average learner. I underestimated my potential, and I was invisible in class because I was so frightened to speak up. I would watch every day as the teachers tried to drill knowledge into me as if I were an empty vessel. I participated when and where I felt it was appropriate and where my voice could be heard and acknowledged. This experience sits in with Freire's (1970) describing sense of fear and silence in students becoming voiceless and could not express their thought in class. The teachers appeared to be frustrated as I could not give the answer they wanted and expected me to perform well in their class. Their expectations did not align with what I brought to class; if only they could unpack it and let me fully take charge of my learning in a culturally appropriate way. The curriculum I experienced did not function as a tool for social improvement for rural Indigenous learners. Making conversation was minimal (Pinar 2012).

Introduction

In this chapter, I begin by exploring Western colonial influences on Papua New Guinea's education over the last five decades. The various reforms that have attempted to decolonise the education system, making it more contextual and responsive to students' lives will be discussed. I present four theoretical elements central to this study. I considered four theories that were pertinent to Papua New Guinea response to the changing strands of globalisation. The perspectives chosen speak back to Papua New Guinea's unique cultural and historical standing, its efforts at decolonisation, and the importance of valuing the existing knowledge that teachers bring to the classroom and in turn, their students' learning and lived experiences. With this consideration, critical thinking is informed by Freirean philosophy (Freire, 1970, 1972), culturally relevant

pedagogy (Ladson-Billings, 1995), the critical transformative paradigm (Giroux, 1985), and social meliorism curriculum theory (Pinar, 2012).

The theoretical framework, and the perspectives chosen for this research, centre on the impacts of teachers' practices in teaching, learning, and engagement in assessment. The four elements are interrelated and broadly connected due to the cultural aspects of responsive teaching and students' proactive engagement in education, which remains a significant challenge in Papua New Guinea.

A Western influence on Papua New Guinea education

Papua New Guinea inherited the contemporary education system from its Australian colonial masters based on the Western Industrial Revolution. Megarrity (2005) has argued about Indigenous education in colonial Papua New Guinea that:

Commonwealth policy towards Papua New Guinea education in the colonial period was limited conceptually by the relatively low priority accorded to Papua New Guinea affairs by the Australian government, as well as the Commonwealth's overwhelming emphasis on narrow vocational outcomes for Indigenous people. This meant that education outcomes vital to successful independence -such as civic awareness and a solid pool of professional workers-were neglected, much to the future of Papua New Guinea as a nation. (p. 1)

Some years after independence, Papua New Guinea attempted to decolonise the education system, making it more contextually relevant, a struggle that remains for many schools in Papua New Guinea today. There have been numerous education reforms since 1999, including curriculum changes in 2000, with the adoption of outcomes-based education, which had a significant impact.

The rapid educational reforms in the Papua New Guinea educational system span five decades. During this time, the national education policy sought to construct a school curriculum that is contextual, relevant and can cater explicitly to Papua New Guinea's culture, languages, and traditions of a population of over five million people (Goro, 2021; NDoE, 2010a, 2010b). The change from an objective-based to an outcomes-based curriculum in 2000 was accommodated by a change in the language policy directed by the Education Secretary, which required all students to be taught and

assessed in their vernacular at the elementary level of education. Litteral (1999), in his research on four decades of language policy in Papua New Guinea, states that the 1990s decade was seen as the:

initial stages of an education reform that included the introduction of a new initial education level within formal education, called Elementary Education, will give vernacular education more status by including it in the formal system and moves beyond cultural-based literacy to cultural-based education. (p. 5)

After completing Elementary two, Grade three students were to be taught using a bilingual education approach. This transition period to learning English as an additional language was called bridging, when a selected vernacular was used alongside English to teach students (Litteral, 1999; NDoE, 2003a). This change in language policy was a way forward for Papua New Guineans to maintain their culture by using indigenous languages in the classroom. However, it was challenging to implement this policy, as Papua New Guinea does not have a single common indigenous language spoken throughout the country. Teachers in implementing the outcomes-based curriculum in primary schools were doing their best to interpret and understand the reforms to convey knowledge. But it was a struggle as most teachers were unfamiliar with the principles underpinning the pedagogies of bilingual education. Thus, some teachers were teaching in schools where they could not understand the local vernacular, making bilingual education a struggle and unachievable.

Bilingual education was a struggle because Papua New Guinea is a large country with complex and unique cultures and has more than 800 languages. Language researchers Foley (1986), Levy (2005), and Wurm (1982), in their studies of Papua New Guinean languages, identified that traditionally, Papua New Guineans speak 820 languages, each with different dialects, belonging to two language groups: The Austronesians and the Papuans. The Austronesians are part of a language group that originated in South China, spreading from the Philippines, Indonesia, and as far west as Madagascar. A few Austronesian languages spoken in the country are Meso-Melanesian languages, Nalik, Kuanua, and Nakanai, which are spoken in the country's islands. The other group, the Papuans languages, are spoken on mainland New Guinea and stretch west to Halmahera (an island in Indonesia) and as far east as the Solomons. The

remaining 550 non-Austronesian languages have small speech communities, with the largest being those of the Engan, Melpa, and Kuman speakers in the Highlands of Papua New Guinea, each with more than 100,000 native speakers (Foley, 1986; Levy, 2005; Wurm, 1982).

With such a complex spread of dialects in different parts of Papua New Guinea, there is no one common language of communication for everyone, making communication with other cultures a setback (Kamele et al., n.d.). Languages with statutory recognition are English, the first and official language, Tok Pisin, and Hiri Motu. Tok Pisin, an English-based creole, is the most widely spoken, serving as the country's lingua franca (Foley, 1986; Levy, 2005). As I write this thesis, these three languages primarily serve the interests of the urban population, rather than those in the rural and most remote areas, where 80 per cent of the population lives in Papua New Guinea.

The contents across the curriculum for the lower primary grades level addressed most of Papua New Guinea's cultural ways and contents relevant to Papua New Guinea with outcomes-based curriculum (NDoE, 2003a). As the students progressed to upper primary, they were introduced to modern concepts of the outside world and how to cope with globalisation, emphasising the 100 per cent use of the English language in both oral and written expressions. However, the bilingual education approach to the curriculum did not work well as the students progressed to higher grades and learning institutions in Papua New Guinea. Their written and spoken English remained problematic, and there was a public outcry about the irrelevance of the outcomes-based curriculum. They demanded a change in curriculum in 2017, with the abolishment of outcomes-based education to a standards-based curriculum (Devette-Chee, 2021a). In the remainder of this chapter, I examine the theoretical perspectives and foundations that underpin this study.

Conceptual framing

Every education system has a philosophy that guides and directs the educational policies and curriculum implementation (Noddings, 2018). With a philosophy in place, the education system is guided to develop aims and goals to abide by and work towards achieving them in practice. A philosophy of practice covers the general outlook of the education system at all levels and narrates how powerful and advanced countries are,

depending on the types of their education systems. The types of languages, cultures, moral and religious education, political systems, and successes in coping with globalisation are determined by the education philosophy that underpins an educational goal of a country (Cottrell, 2000; Frank & Leamon, 2005; Mason, 2008; Matane, 1986; Noddings, 2018; Raley & Preyer, 2010). The philosophical theories that provide the conceptual framework for my study are drawn from Paulo Freire's critical theory, as discussed in *Pedagogy of the Oppressed*; Gloria Ladson-Billings' culturally relevant pedagogy; Giroux's critical transformative paradigm; and William Pinar's socio-meliorist curriculum theory.

In this study, the theoretical framework refers to the four established bodies of theory that inform my understanding of schooling in Papua New Guinea: Freire's critical pedagogy, Ladson-Billings's culturally relevant pedagogy, Giroux's critical transformative paradigm, and Pinar's social meliorist curriculum theory. The conceptual framework is the particular way I bring these theories together to interpret teachers' assessment practices in the reformed PNG primary curriculum: Freire and Giroux sensitise my analysis to issues of power, oppression, and voice in classroom assessment; culturally relevant pedagogy focuses attention on how teachers recognise or ignore students' cultural and linguistic resources in assessment; and social meliorism frames curriculum and assessment as conversations that can either support or constrain students' opportunities for meaningful, socially relevant learning. Together, this conceptual framework guides my research questions, the kinds of teacher talk, assessment tasks, and policy texts I attend to, and the categories I use in analysing how teachers understand and enact assessment within ongoing curriculum reforms.

Thinking with Freire

In this study, Freire's critical pedagogy frames issues of power and voice; culturally relevant pedagogy foregrounds culture and identity; the critical transformative paradigm focuses on change-oriented practice; and social meliorism frames curriculum and assessment as tools for societal improvement. Freire's critical theory, illustrated in *Pedagogy of the Oppressed* (1970, 1972, 1973), considers the freedom of human beings to be liberated and have a voice in a society that advances human dignity. Freire articulates how the oppressed are disadvantaged and powerless and are denied their existence as humans by the oppressors. Oppressors are people who are likely to feel

they are powerful and dominant in all decision-making. Their societal status enables them to exert power and impose punishment on weaker individuals. Freire (1970, 1972) opposes the idea of viewing human beings as objects rather than subjects, who have the same rights to exercise power and be accepted equally in living life as expected of all human beings. Freire's (1972) concept of 'banking of education' positions students as empty vessels in which teachers impose knowledge and power and dominate all decision-making in the classroom, demonstrating a power imbalance. As such, students are denied their rights to freedom of expression and are considered passive learners surrounded by the walls of their classrooms.

Freire (1999) advocates developing dialogues between oppressors and the oppressed, and Gomes (2017) supports dialoguing as a pedagogical practice. In supporting dialogue between teachers and students, Black and Wiliam (2018) discuss transformative change in individuals, stating the following:

The intention of engaging pupils in purposeful learning will succeed only if the teacher can open up and then steer a learning dialogue. This is a delicate task, involving elicitation of pupils' contributions, responding in a way that seeks to use, and so to value, even the most bizarre of pupil suggestions, and conducting the discussion in such a way that the progress is, and is seen to be, partly the responsibility of the pupils, and yet is kept on track with the larger aims in view. Such steering should lead to interpretations of the outcomes that would seek to transform them in the light of a broader perspective, linking them to earlier learning and opening up the next steps. (p. 559)

In Papua New Guinea, the notion of the banking concept of education was evident and practised through rote learning, which assumed teachers were the knowledge keepers in an objective-based curriculum. The objective-based curriculum was introduced before Papua New Guinea's independence in 1975. It was brought to Papua New Guinea during colonisation and imposed a curriculum that was irrelevant to Papua New Guinea's ways of knowing (Litteral, 1999; Megarrity, 2005; Waiko, 1997). The objective-based curriculum was abolished in 2000 because its rote learning approach and content were out of context and an outcomes-based curriculum was introduced in

2002, with only a few schools trialling the curriculum until 2005, when it was rolled out nationwide.

Utilising Freire's concept in this study frames the imperative for teachers and students, to collaborate and participate in the teaching and learning process and drive systemic change. This is through including students in the decision-making process and having input into teaching content that reflects their cultures and values. Having observed the decolonising of the Papua New Guinea education system with endeavours to make it more relevant and contextual, this focused my critical attention and led me to ask, 'What really is Papua New Guinea decolonising in its constant education reforms?' In making it relevant and contextual it has been argued teaching practices need to align with the cultures of every child in their classrooms for more constructive learning to happen (Guthrie, 2015; Kamele et al., n.d.). Rethinking pedagogical models that are interconnected and that situate teachers and students as co-collaborators and contributors is crucial because as Freire argues it empowers stakeholders to take ownership of the production of knowledge.

In this study, Freire's work frames assessment as either reproducing the "banking" model through rote, summative, teacher-controlled tests or as a dialogic, co-constructed practice that invites students' voices and lived experiences into judgement about learning. This lens guides the analysis of teachers' perceptions of assessment by highlighting when their talk, classroom tasks, and grading practices, position students as passive recipients of knowledge versus active subjects who participate in making meaning and evaluating their own learning.

Culturally relevant pedagogy/teachers as cultural workers

Ladson-Billings and culturally responsive teaching literature provide the pedagogical lens for classroom practice and assessment. Culturally relevant pedagogy considers students' socio-cultural background as significant to their social lives. Culture needs to influence teaching and learning in classrooms. Culturally responsive teachers allow and give space to students' cultural lifeworlds in the classroom and during teaching and learning, and, most critically, during assessment. Teachers who use culturally relevant pedagogy build on prior knowledge by linking culture and learning (Ladson-Billings, 1995, 2014). Culturally relevant pedagogy promotes learning that is socio-culturally situated and experiential. Students come to school with bags full of their cultural

knowledge and are encouraged by the culturally responsive teacher who can stimulate learning and make cultural connection to the subject in the classroom. This is done by utilising creativity in finding authentic materials to provoke students to critically relate learning to the acquisition of prior knowledge.

In culturally relevant pedagogical classrooms, Vavrus (2008, p. 55) states, “Culturally responsive teachers exhibit their culturally responsive dispositions by classroom behaviours that create thoughtful and supportive learning environments and encourage self-directed learning by all students”. Hence, the teacher draws on ideas to guide learning and allow students to explore and find answers that make sense and have meaning in relation to what is stated in the curriculum. In culturally relevant pedagogy, teaching and learning are collaborative, with teachers and students working together to create meaningful dialogues and conversations that foster learning (Black & Wiliam, 2018; Freire, 1999). Teachers who teach and behave in culturally appropriate ways view learning as an active process. For example, teachers design instruction that builds on what students already know, considering students’ prior knowledge and beliefs and incorporating these into classroom practices.

Villegas and Lucas’s (2002a) six characteristics of culturally responsive teaching can assist teachers to understand what it means to teach from a culturally relevant perspective. These are: 1. Socio-cultural consciousness; 2. An affirming attitude towards students; 3. Commitment and skills to act as agents of change; 4. Constructivist views of learning; 5. Learning about students; and 6. Culturally responsive teaching practices (pp. 26–27). This study has promoted a deeper recognition of how culture is an important pedagogical tool in a diversified world. A specified culture determines and shapes how someone thinks, behaves, and reacts to what life unfolds daily. Thus, it is important to gain ownership of the knowledge bound by culture (Avalos, 1993). As cultural workers, teachers should be cognisant how learning is being shaped by their students’ cultures.

Culturally relevant pedagogy stresses social learning, where knowledge is constructed, deconstructed, and reconstructed (Freire, 1998). Vavrus’s (2008) definition of culturally relevant teaching is one in which “Culturally responsive teaching is an educational reform that strives to increase the engagement and motivation of students of colour who historically have been both unsuccessful academically and socially alienated

from their public schools” (p. 49). Teachers that can make that connection using effective teaching strategies to link aspects of students’ culture and simulate meaningful learning into current classroom practices are teachers that are culturally knowledgeable and creative (Gay, 2010; Manurung, 2012; Villegas & Lucas, 2002b).

So, what really is Papua New Guinea decolonising in its constant education reforms? This question is worth further investigation by Papua New Guineans before instigating another baseless education reform.

Culturally relevant pedagogy is particularly relevant for Papua New Guinea. The country’s reform of curriculum to an outcomes-based system in 2002 claimed that an outcomes-based curriculum accommodated some of Papua New Guinea’s most significant cultures, traditions, and rituals that citizens believe should be upheld and promoted. For example, Papua New Guinea’s cultural beliefs, traditions, and arts and crafts, are, it has been argued reflected in the outcomes-based curriculum and situates teachers as cultural workers in the teaching, and assessment of students (NDoE, 2003c).

However, in the actual teaching of the outcomes-based curriculum, some teachers lacked the cultural knowledge and skills necessary to effectively convey the significant concepts of Papua New Guinea to their students. The integration of culturally relevant pedagogy as a theoretical framework for this study was chosen as it encourages teachers and students to embrace their own cultural backgrounds and identities. This aligned with my view that it was essential to acknowledge and celebrate the local cultures and how teaching and learning were practised within them through teachers’ behaviour as cultural workers (Roberts & Freire, 1998).

As most of Papua New Guinea’s culture is slowly disappearing due to modernisation and exposure to the outside world, it is time that culture is recognised as a significant concept in human existence in Papua New Guinea. The only place to uphold and take pride in our culture begins with the education system, starting at the primary school level and extending to other levels of education. Teachers as cultural workers should be at the forefront of implementing culturally relevant lessons. Teachers and students play a vital role in participating in culturally relevant assessments that foster curiosity about how students can create practical end products using the resources available to them.

Culturally relevant pedagogy frames assessment as a practice that can either affirm or invalidate students' cultural, linguistic, and community-based knowledge. In this study, it directs attention to whose knowledge counts in tests, projects, and classroom questioning, and to how teachers' assessment practices in Papua New Guinea either draw on or ignore students' languages, traditions, and everyday experiences, thereby shaping the impact of assessment on student engagement and achievement.

Critical transformative paradigm

Transformative pedagogy draws on the idea of culturally relevant pedagogy as it encourages teachers to foster learning through interaction and collaboration (Giroux, 1985; Mayer, 2008). The critical transformative paradigm prompts students' curiosity to actively take risks and explore multiple viewpoints from differing perspectives through collaboration in any learning experience for growth in skills and knowledge development (Farren, 2015; Giroux, 1997; Pallavi & Preeti-Nair, 2016). Meyers (2008) notes five considerations for lecturers when using transformative pedagogy to teach university students online, which are:

1. creating a safe environment
2. encouraging students to think about their experiences, beliefs, and biases
3. using teaching strategies that promote student engagement and participation
4. posing real-world problems that address societal inequalities
5. helping students implement action-oriented solutions (p. 219).

Two of the considerations that work for university students can also best suit primary school teachers to use pedagogies that encourage changing students' lives: These are:

1. Encourage students to think about their experiences, beliefs, and biases.
2. Use strategies that promote student participation and engagement (p.219).

Transformative pedagogy emphasises giving students independence to explore and engage in learning and aligns well with the principles of authentic assessment. Here, teachers design learning to guide students through various experiences and outcomes, and students are engaged in task-based learning which can be authentically assessed based on their performance (Black & Wiliam, 2018; Ladson-Billings, 1994, 1999).

Teaching, learning, and assessment are essential to developing a student's transformative change in which they can demonstrate their learned knowledge and skills (Guthrie, 2015). In primary schools, every teacher has the potential to be identified as 'transformative' and understand how, in their roles as educators, transformative teaching is key to understanding how the educational system operates (Ingersoll & Collins, 2018). It is likely that Freire and Giroux together underpin a critical lens on power and oppression in PNG schooling.

In the Papua New Guinean context, there are limitations to the full implementation and interpretation of transformational change in the curriculum due to the limited availability of resources and the location of some rural schools (Aihi, 2011; Rena, 2011). Giroux's critical transformative paradigm focuses on creating change and improvement. If education is seen as an agent of change, teachers are the mediators of that change and curriculum innovation requires theory that underpins and guides the entire education system. Teachers' practices and students' learning approaches shape the curriculum expectations in terms of knowledge, skills, and attitudes (Carr et al., 2005). The entry and exit points of students entering and leaving the school system are determined by the expectations of teachers (Matane, 1986). In the next section, I think with social meliorism curriculum theory as it entails educational experiences that emphasise the curriculum as conversation (Paraide, 2014b).

Giroux's critical transformative paradigm positions assessment as a potential site of student agency, reflection, and social critique rather than simply a mechanism for sorting and grading. This perspective informs the analysis of teachers' perceptions by asking whether assessment tasks in the reformed Papua New Guinea curriculum create opportunities for students to reflect on their experiences, question injustice, and act on what they learn, or whether they merely reproduce existing hierarchies and compliance.

Social meliorism curriculum theory

Pinar and social meliorism supply the curriculum lens to interpret reforms and teachers' (lack of) ownership of curriculum and assessment. Social meliorism curriculum theory entails conversation as knowledge in action where teachers and students interact by sharing ideas and connecting to curriculum content, ranging from familiar episodes to the unknown (Pinar, 2012). In this study, the components of assessment practices are derived from a curriculum, such as the standards-based curriculum. In Papua New Guinea, it is underpinned by

social meliorism curriculum theory, which focuses on empowering educational reforms that foster societal changes by reflecting on how students learn (McLaughlin, 1994).

In my examination of teachers' perceptions of assessment in a reformed curriculum and how assessment impacts student learning in rural and urban settings of Papua New Guinea, I have drawn upon social meliorism curriculum theory as it relates well to Freire's (1970) idea of teaching, which involves students in stirring up teacher-student dialogues. In social meliorism curriculum theory, students are encouraged and given the space to utilise educational opportunities to expand and enhance their knowledge, making life meaningful. This is so that each individual can live life with purpose and significance, fostering growth (Cashman, 2015). Thus, teachers scaffold and unpack students' prior knowledge by teaching from the known to the unknown, making learning convenient and meaningful.

It can be challenging and competitive for students to strive for better academic achievement due to unexpected circumstances (Carr et al., 2005). As emphasised and encouraged by Pinar (2012), teachers are empowered to have a voice to influence the curriculum in a manner that positively contributes to student learning. Teachers are empowered to take the initiative and lead the curriculum that demonstrates their voices in the design and delivery of teaching and learning. Pinar (2012) argues for a curriculum that represents a teacher's genuine, authentic self, rather than following pre-planned activities planned by someone outside the teaching profession. Therefore, with this in mind, teachers should take ownership of the curriculum and should understand what they are teaching and what they are assessing. Any content assessed should promote motivated learning to support students' academic and behavioural success.

However, teachers in Papua New Guinea lack ownership of the nationally prescribed or pre-planned curriculum, which is created by professionals who are not teachers at the Curriculum Development Unit within the National Department of Education (Goro, 2020). For example, in the standards-based curriculum currently used in Papua New Guinea's primary schools, teachers lack ownership because they have little to no say in the curriculum content. They are viewed as mere implementers and interpreters of decisions made by others. There are limits to what teachers can interpret and teach; teachers are learning as they teach in Papua New Guinea.

Social meliorism curriculum theory is significant to this study as it emphasises the importance of curriculum reforms in enhancing the quality of education systems in various countries. Since education reform is essential for achieving better outcomes, it encourages teachers to take ownership and engage in independent discussions about the curriculum that better prepares students for life after school. This approach shifts teaching from the known to the unknown, making it more relevant to students' cultural contexts. It promotes informed decisions that align with achieving both long-term and short-term educational goals and objectives, fostering critical thinking and informed choices among its students. This is a timely application of the theory, as Papua New Guinea underwent structural and curricular education reform in 2017, three years prior to my study.

The curriculum reform in Papua New Guinea represents a step forward for better education; however, it faces limitations regarding resources and qualified teachers necessary for effectively instructing students and assessing their learning. Teachers are taking the initiative to impart relevant knowledge to students. Nevertheless, further improvements are needed, as the conditions in both rural and urban schools simultaneously impact the effective implementation of curriculum reforms in Papua New Guinea.

Social meliorism curriculum theory frames assessment tasks as forms of curriculum "conversation" that should help students engage with and respond to the social realities of life in Papua New Guinea. In this study, it guides the examination of assessment artefacts and teacher talk for the extent to which they prepare students to address local challenges, connect school learning with community needs, and support meaningful life outcomes beyond test scores.

Together, these four perspectives shape how the study interprets teachers' perceptions of assessment and its impact on student learning: they provide a lens for analysing interview data, classroom artefacts, and policy documents for evidence of banking versus dialogic practices, cultural affirmation versus erasure, compliance versus transformation, and technicity testing versus socially meaningful assessment. This integrated framing makes explicit how the study will judge whether current assessment practices in Papua New Guinea's reformed curriculum hinder or promote students' learning, agency, and life chances.

Summary

In this chapter, I have explored the conceptual perspectives and foundations underpinning this study. I have carefully selected theories that recognise the importance of equality and inclusiveness and of celebrating local cultures in Papua New Guinea. The theories are interrelated and connected in terms of culturally relevant practices that enhance student learning through authentic assessment practices. Teaching and learning are most effective when assessments are conducted in a language that stimulates authenticity and promotes creativity. Using a reformed curriculum that includes dialoguing with students through collaborative pedagogies that are meaningful and calls for transformative changes for better living, in which all individuals are entitled. In doing so, teachers should possess the qualities of cultural workers and act as advocates, instilling in their students an appreciation of the significance of their culture in a changing world when evaluating their day-to-day learning.

In the next chapter, Chapter 3, I examine the literature regarding teachers' perspectives on assessment and curriculum in primary schools.

Chapter 3

Literature review

Introduction

The literature review presents research findings on assessment practices from a global perspective and examines how these practices relate to assessment in Papua New Guinea's primary schools and their effects on teachers and students. The research question and the four supporting questions that guide this literature review are:

Main research question

To what extent did teachers understand how to utilise a range of assessment practices in primary schools to improve student learning?

Sub-questions

- a) What were Papua New Guinea's primary school teachers' perceptions about using differing types of assessment in teaching and learning?
- b) How did applying differing assessment types affect student learning in Papua New Guinea primary schools?
- c) What existing assessment methods did Papua New Guinea teachers apply to review student learning, and how did they utilise this data in their teaching?
- d) How could professional development assist teachers in improving their assessment practices?

I begin the chapter by recounting, through my personal narratives, how traditional ways of knowing were situated within the colonised education system in Papua New Guinea.

Learning and completing assessments in English was a nightmare

As Gilliam (1984) states in her prologue to *Language and development in Papua New Guinea*, "I have only been able to use a language that enslaved me. Therefore, the messengers of my mind always come shackled" (p. 54). *This was precisely how I felt when I was introduced to English in 1978 as I entered primary school, and those feelings are still present today as I write this thesis.*

My worst nightmare was learning new concepts and ideas in English, a foreign language I had never tasted since and which my parents had no idea about. English is a language with complexity and structure. One must understand its diverse vocabulary,

sounds, and irregular grammar rules to use it fluently, and assessments were nerve-racking as they were all written in English. Tests were the only means of assessing students at that time. Because assessment tasks were aligned with this Western curriculum, students' traditional ways of knowing through storytelling, dance, and drama were excluded from what was assessed, signalling to teachers and students that Indigenous knowledge did not count as legitimate evidence of learning. For example, I was never allowed to speak in my local vernacular and other students also faced similar experiences; some left school, while others lacked a strong commitment to schooling and were randomly absent.

My traditional ways of knowing through storytelling, dance, and drama were ignored as the curriculum contained Western teaching and learning concepts and styles that differed drastically. Corporal punishment was habitually enforced, and I had to follow the class rules, 'Speak English at all times' to escape punishment. I was punished several times for failing to follow that rule. The teacher sometimes hit me with a ruler on my hands and this continued until I finished Grade six at the age of 12 in 1983. The complexities of mastering English drained me and I walked to school with a heavy heart and feeling confused every morning. The classroom, which was built to house the students and keep us in confinement was unbearable.

Assessment practices/types used to measure student learning in Papua New Guinean primary schools

In this study, I investigate the different types of assessment used in primary schools to measure and evaluate students' learning as they progress through primary education. The differing assessment components I consider in this study are formative and summative. They are commonly used in various countries, as the research has identified (Ara & Saeed, 2020; Black & Wiliam, 1998b; Monteiro et al., 2021). I chose these assessments as they are extensively used in the Papua New Guinean education system, yet no research has been conducted about their effects on student learning. Research on curriculum practices in Papua New Guinea and their implications for the country has been conducted (Aihi, 2011; Kekeya, 2014; Paraide, 2014a). However, they overlooked a critical component of the curriculum: assessment.

My research questions in this study refer to a range of assessment practices. My research focused on formative and summative assessments and their impacts on

learning. Formative and summative assessments are the main types used across many fields of education worldwide. Many other writers have written about the two types of assessment and how they affect student learning in a learning environment (Alkharusi, 2008; Black & Wiliam, 1998a; Kulasegaram & Rangachari, 2017). Formative and summative assessments entail assessment *as* learning, assessment *for* learning, and assessment *of* learning. The three assessment types have different focuses and principles that teachers can apply in all learning institutions, such as primary schools and at varying levels of education (Oyinloye & Imenda, 2019; Spiller, 2015).

Assessment *as* learning is a form of formative assessment conducted in the classroom during the teaching and learning process. In this assessment, children take ownership and responsibility for their education, a concept also referred to as self-assessment, as described by Agrawal & Rayapakse (2017). During class activities or when children are engaged, the teacher collects and records marks for assessment purposes. For example, a teacher teaches a thirty-minute mathematics lesson, assigns an activity worth ten marks, collects the students' exercise marks, and records them. This formative assessment *as* learning is newly introduced as part of the reformed standards-based curriculum for Papua New Guinea. Teachers have yet to familiarise themselves with and educate themselves in conducting assessments *as* learning in primary schools. It is a new concept, and Papua New Guinea teachers need more assistance with assessment *as* learning.

Assessment *for* learning is another form of formative assessment, an ongoing assessment and evaluation process (Hargreaves, 2005; NDoE, 2002; Webb & Jones 2009). Tasks are collected, marked and marks recorded for assessment and evaluation. For example, during the teaching and learning process, a mathematics project on *Solving mathematical problems* is set in week two and is due in week eight. During teaching and learning, the teacher introduces topics related to the project, enabling the children to acquire the knowledge and skills necessary to work on their project. At the end of week eight, students can submit their assignment, and the teacher will mark the project. The marks are recorded as described in the Assessment and Reporting Policy Handbook for Papua New Guinea (NDoE, 2003b).

Assessment *of* learning is a summative type of assessment. According to NDoE (2017) and many other authors from various angles, for example, Hargreaves (2005),

they affirmed that the assessment of learning is a summative assessment conducted at the end of a course, semester, and grade level. Assessment *of* learning, also called summative, is designed to summarise students' learning over a set period and is generally carried out at the end of a course and grade level. For example, in Papua New Guinea, it is at the end of Grades 8, 10 and 12. Assessment of learning is conducted anywhere in the world according to the respective education system and its expectations of educational goals and aspirations in different countries. It is distinct in all countries internationally. Despite discussing assessments from various angles and perspectives, they can be broadly categorised into two main types: formative and summative.

Formative and summative assessments are conducted to evaluate students' learning effectively. Within these two types of evaluation, specific assessment methods serve as data collection instruments in Papua New Guinean schools.

Existing assessment methods in Papua New Guinean education

To effectively evaluate whether students have met a subject's learning outcomes prescribed in the curriculum, teachers must choose an appropriate assessment method that best suits the knowledge and skills to be assessed (Manurung, 2012). Assessment methods are instruments used in assessments as a medium for collecting and analysing student marks. Marks are then recorded, reported, and evaluated at the end of a course or semester (Shay & Jawitz, 2005). NDoE (2003c), the Social Science Teachers' Guides for outcomes-based curriculum, highlighted that it should be based on various assessment methods to make fair judgments on students' demonstration of the learning outcomes. Specific criteria should be explained to the students so that the basis for judgment is transparent and the students can achieve the standard.

The three main types of assessment methods in Papua New Guinea are assignments, tests, and examinations. In assignments, there are other varieties of methods, such as keeping records of children's work, questionnaires, students' records, talking with students, observation of students, student self-assessment, and ongoing records (Black & Wiliam, 1998b; Brown, 2011; NDoE, 2017; Rust, 2002).

As curriculum implementers, teachers must be knowledgeable to effectively carry out assessments using appropriate methods. Practical assessments are generated using various techniques, not just the ones with which teachers are comfortable. Primary school teachers must be informed of the methods and be able to employ multiple

assessment methods in evaluating students (Rust, 2002). Knowing and understanding the three types of assessments is one factor, and the other aspect is knowing the appropriate assessment methods or data sources that best suit the assessment types. Rust (2002) references some reliable data sources teachers can use. These include teacher observation, student conferences, standardised tests, learning journals, portfolios, peer feedback, and school-developed tests. Data can be diagnostic, formative, summative, qualitative, or quantitative, as suggested by Datnow and Park (2014).

As stated in the Papua New Guinean school curriculum (NDoE, 2017) and other international sources (Black & Wiliam, 2018; Brown, 2011), different subjects have unique ways of assessing and recording students' marks. This fact should also be considered necessary for teachers to understand better how assessment is conducted in different subject areas. However, Papua New Guinean teachers must learn sustainable ways of assessing students. One aspect of this is using multiple sources, such as oral presentations and imitations through storytelling, which are culturally significant.

Indigenous ways of knowing

Papua New Guinea's indigenous ways of knowing are complex; they encompass a diverse range of languages, tribes, and cultures, and its rich history of Indigenous traditional knowledge practices is similar to that of other indigenous cultures. Papua New Guinea has shared many Indigenous cultural practices with other countries, including the Aboriginal people of Australia, Canada, India, and other Pacific countries. Atleo (2009) references how Aboriginal learning ideology involves storytelling with the elders and this practice is undoubtedly resonant with Papua New Guinea. Archibald (2007) has described the importance of having elders whose expertise in traditional skills and knowledge made them important vehicles for disseminating traditional knowledge, from generation to generation and is continual. Archibald (2007) has noted how listening to stories was an essential skill in oral societies. Baldasaro et al. (2014) have reported that Indigenous communities' storytelling is the modality used to teach cultural awareness, and Benson (2003) has expressed the importance of oracy as knowing within a circle of intergenerational healing.

There is limited in-depth research done in Papua New Guinea to validate oracy as a fundamental aspect of survival in traditional Papua New Guinea. The survival of the Indigenous people in many countries has been sustained through oral history, using

Indigenous languages, which has helped keep their culture alive today (Waiko, 1986). Indigenous people continue to practise their culture in a globalised modern environment, learning through storytelling and listening approaches adopted by the young generation; this signifies that traditional learning methods are still significant today. Although my research focuses on the Western concept of assessing learning, there is room to incorporate storytelling through oral presentations as an assessment method in Papua New Guinea. Atleo (2009) points out that, “If cultural strategies are persistent and fundamental to the survival of a people, identifying and understanding Indigenous learning orientations and ideology such as those of the Nuu-chah-nulth would provide emancipatory insight for Aboriginal learning in contemporary educational settings” (p. 454).

Before colonisation in 1873, Papua New Guinea had an unstructured and informal education system. Situated learning took place orally, using Indigenous languages, and was based on observation, imitation, and the practical application of knowledge and skills essential for living life in a traditional Papua New Guinea context. This was crucial for leading meaningful and productive traditional lives in their villages (Denoon, 2012; Guthrie, 2015; Smith, 1987). Smith (1987) argued that the skills and knowledge taught were purposely for survival and had nothing to do with a formal Western understanding of the outside world.

Primarily, knowledge was limited to events in the indigenous people’s immediate socio-cultural settings and interactions with neighbouring villages, which shared the same cultural norms and belief systems. Because the education system was more rooted in indigenous ways of knowing (Megarrity, 2005), some elders supervised students who were expected to act as teachers and were related to the students as they came from the same clans and tribes.

Situating assessment in teaching and learning

Assessment is an ongoing integral part of the curriculum; however, how well teachers perceive assessment as an ongoing and essential part of the curriculum is vital to improving student learning. Alkharusi (2008) and Queensland Curriculum and Assessment Authority (QCAA) (2019) suggest that assessment is the evaluation or measurement of something, such as a person’s knowledge, skills, or abilities, that results from a teaching and learning process. It can be used to understand how well

someone is learning and to improve their education in a formal school system, as seen in the Western view of assessment. Papua New Guinea adopted the Western assessment concept during colonisation and after independence. Wolf et al. (2006), in the Curriculum Handbook, define curriculum assessment as ongoing and “a process of gathering and analysing information from multiple sources to improve student learning in sustainable ways” (p. 3). Improving student learning sustainably is relevant as it considers students’ present learning needs brought about by assessments. An effective teacher should focus on students’ needs to help them improve learning, preparing them to meet their future learning needs and choose their career pathways. A definition by NDoE (2003d) states, “Assessment is the evaluation of students’ achievement of the learning outcomes. It involves gathering and interpreting information about students’ learning. It is an integral part of teaching and learning” (p. 10).

Every country has a curriculum framework with an assessment component where teachers plan, implement, and evaluate student learning. Some countries have a uniform approach to the curriculum, where one curriculum is used throughout the country, such as in Papua New Guinea (NDoE, 2002). Other countries in the Pacific, such as Australia and New Zealand, have different curricula in each state of their Federation and despite differences in curriculum structure and content, every school system employs both formative and summative types of assessment to measure student learning using various assessment methods. Some of the international literature has discussed formative and summative assessment in different contexts of education and how the assessment influenced teachers’ teaching in meeting the needs of students through the eyes of summative and formative evaluations (for example, Black & Wiliam, 1998a; Brown, 2004; Jimaa, 2011; Monteiro et al., 2021). However, assessment approaches vary from country-to-country. There is no one assessment-fits-all paradigm for student assessment in the global literature.

When teaching my assessment unit, the definition I use is taken from the Queensland Curriculum and Assessment Authority (QCAA, 2019), which is:

an ongoing and integral part of teaching and learning. Assessment provides evidence for teachers to judge against the achievement standards and monitor student progress. Teachers use ongoing assessment evidence to

maximise student outcomes and adjust the teaching and learning sequence.

(p. 2)

In this study, I use the following definitions of assessment:

1. Authentic assessment: a form of assessment in which students are asked to perform real-world tasks that demonstrate meaningful application of essential knowledge and skills.
2. Formal assessment: a data-driven method of evaluating students, usually with well-defined grading parameters. Formal assessments produce results that significantly affect a learner's progress. For example, they could determine whether a student gets into college or earns a new certification.
3. Formative assessment: measures student understanding in the process of learning a skill or acquiring new knowledge. It concerns how far the child has learned. It is an ongoing type of assessment.
4. Summative assessment: measures students' overall understanding at the end of a lesson or unit, level of schooling, year, or grade. It concerns overall student learning. A grading system is awarded to the student.
5. Assessment as learning: ongoing and encourages students to take responsibility for their own learning by asking questions. It also involves teachers and students creating learning goals to encourage growth and development (Black & Wiliam, 2018; Ladson-Billings, 1995; Monteiro et al., 2021).

It is now imperative to consider how assessments are connected to school utilisation and how this reflects the overall assessment culture.

Culture of assessment in schools

Having a culture of assessment is vital for the academic excellence of students and the schools' or institutions' reputation and recognition at the national level. Most of the literature that focuses on the culture of assessment is from studies conducted in higher learning institutions, for example, Fuller et al., 2015; Hong, 2018; Kalu & Dyjur, 2018. A culture of assessment means that assessment processes and procedures exist in an institution. This is where staff members, teachers, and administrators care to know what assessment results they produce, how these results relate to the desired institutional

outcomes and learning, and outcomes for students, their parents, and other stakeholders (Holzweiss et al., 2016; Hong, 2018).

Weiner (2009) discusses establishing a culture of assessment in higher learning institutions and mentions 15 elements of successfully achieving this culture, of which six apply to Papua New Guinean schools. The 15 elements of a culture of assessment are organised, strategic, and systematic, and assessment practices are monitored and evaluated to improve and create assessment initiatives for the betterment and growth of primary schools. A culture of assessment becomes every stakeholder's business for effective implementation and success for all its educational programs. Thus, the credentials of a primary school are also measured and evaluated by its culture of assessment and the quality of its student output, which primary schools in Papua New Guinea should be able to establish. Of the 15 practices mentioned by Weiner (2009), only six are appropriate and are used in Papua New Guinea primary schools:

6. Practical, sustainable assessment plans: teachers develop an assessment plan at the beginning of every term that should be realistically used and revisited frequently. Changes are made to accommodate unexpected situations in schools.
8. Student learning outcomes: implementation of assessment must consider assessing student learning and success, and the assessment outcomes are derived from the learning outcomes in all courses/subjects.
9. Comprehensive program review: teachers prepare yearly, termly, and weekly programs every school term. Assessment of student learning outcomes should be a component of the program review every year.
11. School effectiveness: everyone is responsible for assessing school effectiveness. In addition to student learning outcomes, many other areas must be assessed; evaluating the school's effectiveness requires assessing how well it meets its mission and goals.
12. Information sharing: sharing assessment results, good or bad, is essential to a successful assessment program. Schools can learn from one another through continuous collaboration. Each grade level needs to see what the others are doing and how well their efforts work.

14. Celebration of successes: after all assessment reports are turned in, celebrating successes demonstrates the importance of assessment. Celebrating participation in evaluation is of tremendous value. Acknowledgment and appreciation reinforce an institution and school's assertion that evaluation is essential and assessment reports are read and valued.

Various schools implement assessment and recognise the benefits it brings to both teachers and their students viewing assessment as a vital step in enhancing schools' reputation and individual academic achievement.

Practices of assessment planning, implementation and evaluation

Assessment comes from adequate planning, which leads to implementation and evaluation. If the goal is not achieved, evaluation leads to reassessment, resetting goals, implementation, and evaluation of teaching (QCAA, 2019). Before conducting assessments in teaching and learning, assessments have to be planned by the teacher, and sometimes, students could contribute to the planning process (Wilson et al., 2021). Planning assessment provides teachers with direction and guidance on implementing what has been planned. Without adequate planning, teachers would not know precisely what to assess. They can go out of focus to evaluate anything, making the assessment lose its actual value.

Preparing an assessment task involves setting out a suitable method, task criteria, and description that guides students to complete the assessment (Rust, 2002). It is also suggested by the Australian Skills Quality Authority (2021) that teachers align the task criteria with the learning outcomes taught. QCAA (2019) emphasises that planning is vital so that teachers are well aware and know exactly what they will assess during their teaching. Assessment plans can be done well in advance in a broader perspective, giving the teacher a broad overview of the yearly and term plans. Then, specific and detailed plans are accommodated in their weekly and day-to-day lesson notes, as entailed by Wilson et al. (2021). Black and Wiliam (2018) consider evaluation as important end product of assessment. Evaluation is the next step in the assessment process, where teachers evaluate their own teaching and identify areas for improvement, highlighting their strengths and weaknesses.

Teachers in all contexts, including Papua New Guinea, understand the five phases of data-informed pedagogy and follow the cycle each academic year. Assessments are

derived and aligned well with the assigned learning outcomes to be taught, and the teacher decides tasks and specific assessment methods on how well the methods can assess specific tasks to evaluate student learning (Brown, 2004; Mikre, 2010). Implementation of assessments is derived from the data-informed pedagogical approach (see Figure 1.1 in Chapter 1). Here it is, Figure 3.1 below.

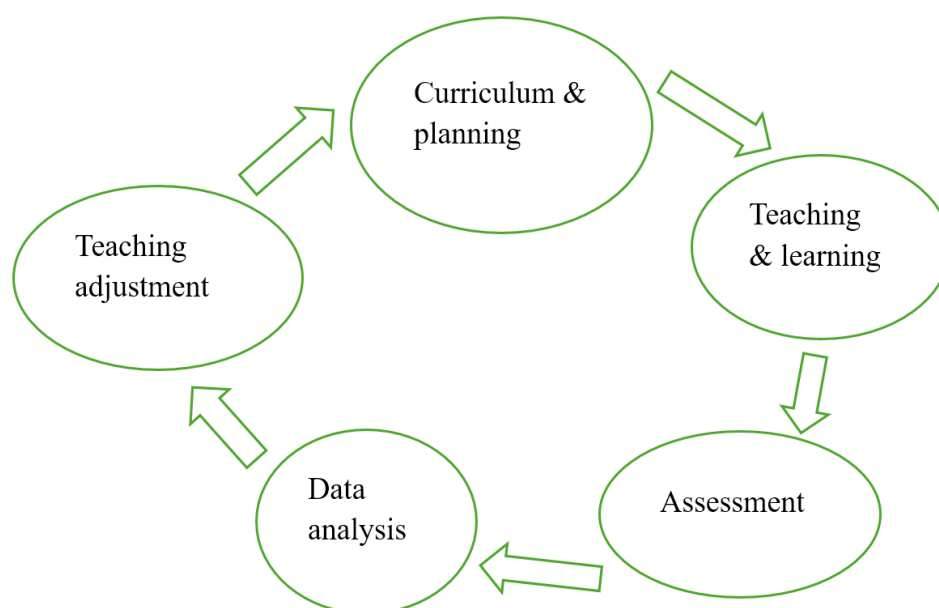


Figure 3.1 Data-informed pedagogy: five-phase model

Based on and derived from the Department of Education (DoE), New South Wales (NSW), 2025

This model is less familiar in Papua New Guinea. The data-informed pedagogical cycle involves five vital stages of teaching and learning that some teachers use consciously, while others employ it subconsciously, as observed in Papua New Guinea. Regardless, the data-informed pedagogical model is applied in nearly all classrooms, provided there is evaluation and self-reflection after every lesson for improvements and teaching modifications. These aspects are crucial for enhancing students' learning, which is a key focus in Papua New Guinea.

Role of assessment in improving learning

Assessment plays a significant role in teaching and improving student learning (Oyinloye & Imenda, 2019; Spiller, 2015) and in a study by Monteiro et al. (2021). Portuguese primary school teachers and students' perceptions about assessment identify

that teachers believe that assessment is meant to improve teaching and learning in schools and account for students' progress. Effective assessment questions the impact of teachers' content delivery and the students' learning readiness and questions the potential, strengths, and weaknesses of teachers' teaching and students' learning styles and progression (Ara & Saeed, 2020; Nenty et al., 2007).

Harlen (2007a) has questioned the reliability of assessment methods and the extent to which they accurately capture a range of student performance data. It is better to understand the accuracy of the assessment methods used. Brown (2004, pp. 304–305), in an international literature review on teachers' conceptions of assessment, highlighted four differing understandings teachers have of assessment, similar to another study by Jabbarifar (2009, p. 2). These are as follows:

1. Assessment improves students' own learning and the quality of teaching over time.
2. Assessment can be used to account for teachers', a school's, or a system's use of society's resources and schools' accountability in the national ranking system.
3. Students are held individually accountable and are motivated to learn through assessment.
4. Assessment is usually understood as a formal, organised process of evaluating student performance and teachers' teaching methods.

Papua New Guinean teachers have historically, drawn on an assessment paradigm to determine students' placement, assign grades, promote them to the next grade, or graduate them. But as the assessment paradigm has shifted, assessment has become instrumental in promoting students' learning and in ensuring no child is left behind in achieving their educational goals (NDoE, 2020).

Role of differentiation in assessment practices

Designing assessments that are fair and just for every student emphasises the importance of differentiation in designing equitable assessment practices (Kumar & Prasad, 2018; Moon, 2005). In the differentiation of assessment, the quality of feedback provided is a significant factor to identify student learning needs and assist students in knowing how to improve (Datnow & Park, 2014).

Teachers need to be realistic and look for patterns in students' understanding that allow them to group students in ways that make differentiation manageable so that every student learns (Peterson et al., 2018). Tosuncuoglu (2018), in his study on the importance of assessment in English language teaching, references how, "Assessment has a critical role in the teaching process" (p. 163), by ensuring progressive and ongoing growth. Assessment differentiation it has been argued improves the quality of education. Jianget al. (2019) in a Chinese study considering improving the quality of national assessment at Grades 4 and 8 in primary education note how, differentiated assessment or instruction ensures that teachers understand the learning needs of the students and modify their teaching and assessment practices to align with the educational goals for student achievement. Recognising the diverse learning needs of students enables teachers to develop inclusive lessons and ensure that all students have ample time to learn, regardless of their abilities. To accomplish this, transform assessment into a teaching method that fosters learning as argued by Devette-Chee (2022).

Assessment as a teaching method

Assessment is a crucial pedagogical instrument as it measures the quality of teaching and learning in all learning institutions. Teachers must use appropriate assessment strategies and tools to measure their performance and students' learning to bring quality into teaching and learning (Manurung, 2012). Assessment pedagogy should provide students with opportunities to develop their reasoning and critical thinking skills. Hence, the transformation of students is informed by "what is taught, how it is taught, how the work is assessed, and how students process the information" (Masuku et al., 2021, p.277). It is essential for teachers to engage students meaningfully with relevant assessment tasks, aligning them with the taught learning outcomes that accurately evaluate students' learning (Jimma, 2011).

Opre (2015) suggests that assessment as learning is essential for an active learning and assessment practices, whether formative or summative. These should enhance the learning and achievement of the prescribed learning outcomes in the curriculum as echoed also by Luckett and Sutherland (2000). Teachers' knowledge and confidence in determining the appropriate strategies to measure the taught learning outcomes are vital when assessment is used as a teaching pedagogy with assistance from using other strategies, such as the use of questions to engage student learning (Lingawa, 2006).

Assessment as a pedagogy is an approach that enables teachers to adapt, thereby improving their own performance and that of their students. Jimaa (2011) discusses the impact of assessment on students by stating that “the methods used to assess students are some of the most critical of all influences on their learning, it is well known that assessment has a deep impact on what and how students study, how much they study and how effectively they study” (p. 718). Assessment as pedagogy can be used to measure student learning through the data-informed pedagogical approach, which can utilise students’ voices in assessments. Utilising assessment as pedagogy can be verbal, written, or gestural (Vano der Kleij & Lipnevich, 2021). Manurung (2012) has highlighted the following: “A teacher must be able to design proper assessments where the assessment matches the material to be learned. When feedback is given, it must be related to what the students still need to study to get it right” (p. 4).

Assessment feedback is also critical for student learning and has a lot of consequences if teachers do not align this well with their institutions’ assessment culture (Hong, 2018; Mayer, 2008). A study in New Zealand on using student perspectives on feedback argues that students’ voices must be heard, and it is relatively straightforward that their voices are rarely heard and their direct input is not greatly valued (Fan & Williams, 2010).

Data-informed pedagogy improves learning

In *Linking Bridging, the Research to Practice Gap*, it is stated that:

The effective use of student data can be the impetus for educators to improve learning and well-being outcomes, and/or student social and emotional learning... The value comes from being able to interpret what the data means for individuals, groups, and whole classes of students, and then use it to make decisions about classroom instruction and well-being interventions.
(Department of Education, NSW, 2017, p. 3)

Data-informed practice is the systematic use of educational data by schools, leaders, and educators to improve student learning outcomes (Datnow & Park, 2014). Assessment data-informed pedagogy begins with the teacher’s in-depth insights and knowledge of assessment functions through curriculum planning processes (Kumar & Prasad, 2018). Understanding the processes, procedures, and types of assessment practices guides

teachers in self-reflection, some of whom are already reflective and action researchers in their classrooms as suggested by Datnow and Hubbard (2016). Data-informed practice has assisted to teachers develop new strategies to adjust their teaching and improve student learning styles. The more they regularly reflect on their lessons daily, the more teachers can improve and become better reflective teachers (Makovec, 2018). Implementing data-informed pedagogy, can inform teacher decision-making in improving teaching and learning.

In Papua New Guinea, teachers often take students' assessments for granted and want to fulfill the required assessment process (Datnow & Park, 2014; Datnow et al., 2007) without seriously considering the value of the whole assessment process.

The following section highlights the perceptions of Papua New Guinean teachers regarding assessment, the approaches, and processes they use to implement the Papua New Guinean curriculum and assessments in schools.

Papua New Guinean teachers' knowledge of assessment

Knowledge about assessment can be influenced by a country's developmental context, technology, curriculum, school infrastructure, students' behaviour, teachers' welfare, and preparedness (Alkharusi, 2008). It is such that most developing countries are challenged by globalisation, which can affect their perceptions of assessment and how they conduct assessments in schools. Furthermore, some countries are affected by their diversity in population and culture; and teachers practice assessment differently to meet the demands of the curriculum, making it contextual and aligning with the educational expectations of the countries in which they teach (Ara & Saeed, 2020; Black & Wiliam, 1998a).

Culture is also significantly manifested in the assessment process as perceived by teachers globally. No two teachers perceive assessment the same way, and this affects their efforts to improve teaching and student learning, as the literature has revealed internationally. Ara and Saeed (2020) emphasise the use of the context in which assessments are conducted, such as classrooms, out in the field, and in laboratories, which is known to give teachers a variety of lenses through which to view the assessment process and its purpose.

Developing Papua New Guinean teachers' views about assessment practices is essential as they are the key implementers of all the learning experiences in any

curriculum (Brown, 2004; Jababarifar, 2009). Listening to Papua New Guinean teachers to understand assessment is vital; their stories guide and advise the education authorities on what is going on in the classrooms and teachers' voices from both advantaged and disadvantaged settings, such as rural and urban schools which are relatively unheard of in the international literature (Acar-Erdol & Yildizli, 2018; Ara & Saeed, 2020). Papua New Guinean teachers have limited input in curriculum decision-making. Yet, they are significantly involved in implementing the curriculum and possess the knowledge to conduct assessments that evaluate learning.

Assessment performance and teacher–student transformation

Assessment is a two-way street: it involves two significant individuals or groups, the teacher(s) and student(s), and is reciprocal. Critical changes occur within the passive and active exchange of giving and taking, which they sometimes ignore and overlook. Otherwise, the transformation remains passive and has not been explored further. Teacher-student transformation aligns well with teachers' perception of assessments as critical for change (Giroux, 1997). Monteiro et al. (2021) affirm that teacher and student conceptions of assessment are essential because they guide how teachers' assessments are implemented in the classroom and determine how students study. Similarly, the assessment data determines students' study habits and improvement, and teachers provide feedback, making assessment data a critical aspect (Ara & Saeed, 2020).

The marks students receive after the assessment either motivate or hinder their learning, prompting them to invest in their studies (Wilson et al., 2021). Freire's (1970) critique of the banking system of education, which views teachers as knowledge keepers and students as empty slates ready to be filled with information, encourages students' transformation and liberation toward a better future. In this framework, teachers act as facilitators of learning, allowing students to explore, investigate, and find answers to problems posed by their teachers in collaboration with them (Spady, 1994). This notion calls for opportunities for teachers to readjust their teaching approach from rote learning and dominant styles to allowing students to have a voice in discovering and presenting evidence in class, as noted by Barry and King (1998). This creates space for teachers to take socio-cultural responsibilities by providing education relevant to the students' environment.

As a result of Freire's critical work on improving education and uplifting the disadvantaged, we can expect to witness ongoing educational transformations in Papua New Guinea in the future. This would pave the way for more teacher enrichment activities they can engage in to improve teaching efficacy.

Assessment as a powerful tool for improved learning

Assessment can create stress and anxiety among teachers and students during the transformation process. Sometimes, it can make students fall far behind, resulting in low self-esteem and feelings of worthlessness (Acar-Erdol & Yildizli, 2018; Moon, 2005). In the worst-case scenario, they can leave school and never return; such behaviour is common in Papua New Guinea, which may be one of the reasons Papua New Guinea students drop out of the school system at a very young age (Paraide et al., 2010). In a recent news report in a Papua New Guinea National Newspaper (2022, 19 December), it addressed the problems of students dropping out of the school system. Airi (2019), in her research about rural schools and their challenges, also suggests that it is more common in rural schools where student retention is problematic.

Similarly, teachers face challenges of stress a lack of confidence in adhering to the expectations of new assessment practices created by educational reforms, which they cannot cope with. This leads to their premature departure of teachers from the teaching profession and long-term absenteeism from teaching (Devette-Chee, 2022). Understanding and conducting assessments in schools is vital, and this is further enhanced by schools having continuous and meaningful teacher professional development activities. This is to reconnect and align the curriculum with actual teaching and learning in Papua New Guinean classrooms.

Investing in high-quality education is among the most powerful measures to reduce poverty and inequality, and to promote long-term economic growth in every country. Using education to achieve both long-term and short-term goals is a priority for all countries today. In doing so, the school curriculum is composed of assessment procedures that provide the means of achieving educational goals, which is suggested by Natcha (2020). Aitken (2000) supports Natcha (2020) and highlights that assessments can be a powerful tool to help students realise their learning needs and enable teachers to identify areas where students lack commitment to their professional teaching duties, allowing for necessary changes to be made for the better.

On the one hand, Earl (2006) argues that:

if learning is the goal, dramatic changes are required in the way that assessment is used in classrooms. Learning was long thought to be an accumulation of atomised bits of knowledge that are sequenced, hierarchical, and need to be explicitly taught and reinforced. (p. 4)

This is when teachers put in the effort and time necessary for effective reinforcement through the use of meaningful assessment practices.

Teacher professional development enriches teacher performance

Teacher professional development is a strategic area to consider reforming so that teachers can participate in it to enhance their existing professional knowledge and skills through a variety of approaches suitable to their contexts. Professional development, in a broad sense, refers to the professional growth a teacher achieves as a result of gaining increased experience and examining his or her teaching systematically (Glatthorn, 1995; Park & So, 2014). Singha and Sikdar (2018) suggest that “Professional training of a teacher includes knowledge of the subject, understanding of pedagogy and teaching techniques” (p. 1320). Phetta and Newman (2020) emphasise that professional development is successful when teachers are actively involved and reflect on their teaching practices and are willing to improve and make changes to improve student learning.

Education policies evolve over time to accommodate the changing demands of society. Several research projects (Darling-Hammond et al., 2017; Kedzior & Fifield, 2004) have identified some characteristics of high-quality teacher professional development that enhance teachers’ efficacy:

1. The content focus in teacher professional development sessions is specific curriculum content that supports teacher learning within their classroom contexts.
2. Extended and active learning with teachers having the opportunities to engage actively and meaningfully in the sessions, and these sessions should be ongoing.
3. Collaboratively create spaces for teachers to share ideas and contribute to the learning often in the job is embedded in teacher professional development.

4. Teacher professional development should be authentic and school-based and represent teachers' daily work experiences.
5. Inquiry-based active learning promotes continuous inquiry and reflection.
6. Teacher-driven teacher professional development responds to teachers' self-identified needs and interests that support individual and organisational improvement.
7. Analysis of student work should inform teacher professional development.
8. Self-evaluation should guide teachers in their progression toward improvement.

Lingawa in his PhD thesis (2013, pp. 191–194) investigated national curriculum implementation in Papua New Guinea and highlighted some of the problems Papua New Guinean teachers face in their teaching duties. Professional development initiatives come in various delivery models albeit poorly coordinated and administered by the education authorities and head teachers at schools. The findings of the study suggested how education authorities in Papua New Guinea are neglecting this essential component of upskilling teachers in the standards-based curriculum introduced in 2017 and that teachers are subject to an inadequate school-based teacher professional development (Goro, 2021).

Types of teacher professional development activities

Teachers who work in complex and hostile environments and need frequent teacher professional development. (Goro, 2021; Kedzior & Fifield, 2004). Teacher professional development models as identified by Villegas-Reimers (2003) come under two specific categories: (i) Organisational partnership and (ii) small groups or individuals. Under the organisational partnership, there are six different models, which consist of a) professional development schools, b) other university or school partnerships, c) other inter-institutional collaborations, d) schools' networks, e) teachers' networks, and f) distance education.

In the second category of small groups or individuals, there are 15 models: (i) supervision-traditional and clinical, (ii) students' performance assessment, (iii) workshops, seminars, and courses, etc., (iv) case-based study, (v) self-directed development (vi) co-operative or collegial development (vii) observation of excellent practice viii) teachers preparations in new roles i) skills development models j)

reflective models k) project-based models l) portfolios m) action research n) use of teachers narratives o) generational or cascade model and p) coaching/mentoring. Papua New Guinea teachers are familiar with the 15 models by Villegas-Reimers (2003). Still, they are not confident in and have no experience with the ones in category two, small groups/individuals. A lack of funds further exacerbates the inconsistency of delivery, engagement, and coordination by education authorities in fostering effective school-teacher professional development practices (NDoE, 2020).

A variety of professional development activities are conducted to improve teachers' performance in classrooms in Papua New Guinea. It is also essential to understand the language of instruction used as the medium of instruction in Papua New Guinea for effective assessment processes.

Situating English in assessment practices in Papua New Guinea

English is the language of assessment in Papua New Guinea and is aligned with government policy for Papua New Guineans to have a place and space in the international labour market and developments (NDoE, 2018). The Papua New Guinea government considers that assessment conducted in English is an imperative and according to Devette-Chee (2021b, p.2), a researcher from the National Research Institute studying literacy points out that:

Gone are the days when a person who did not really care about acquiring English language skills could still survive. Today, a person has to master these skills in order to survive and improve the quality of their life and contribute to a country's economy.

Most research done in Papua New Guinea has reached a consensus that written and spoken English is a tremendous struggle for many Papua New Guinea children at all levels of education (Devette-Chee 2021a, b). A Papua New Guinea national newspaper headline "Failure to understand English a hindrance: School founder", National News Paper (2024, 7 June) noted how in Papua New Guinea most students cannot speak and write English fluently, and rural students are badly affected as many only learn English for the first time when they attend the formal school system (NDoE, 2010b; Paraide, 2014a). English is also challenging for teachers to teach and assess because the English curriculum content often does not match the content knowledge level of primary school

teachers. Teaching English subjects in primary schools is problematic, particularly when some teachers say English is not their first language, and many teachers lack accuracy and fluency in spoken and written English (Devette-Chee, 2021a).

Planning and teaching English lessons across the Speaking and Listening, Reading, Viewing and Writing strands requires professional development for teachers. The table below outlines the strands and units taught in English in primary schools in Papua New Guinea. Standards-based curriculum, Grade 6 English Syllabus (NDoE, 2018, p. 12).

Table 3.1 Strands/skills and units taught in English at the Grade 6 level in Papua New Guinean primary schools

Grade 6 Senior primary			
Strand	1. Speaking and listening	2. Reading and viewing	3. Writing
Units	Listening comprehension	Vocabulary	Handwriting
	Talking	Fluency	Written expression
	Oral expression	Reading comprehension	Grammar and usage
		Literature	

In developing the National Department of Education in 2020, the Papua New Guinea government reformed the education system from an outcomes-based approach to a standards-based approach in 2017. A standards-based education is designed to meet Papua New Guinea's socio-cultural expectations and advocate its cultural norms, values, and belief systems. This notion amplifies a curriculum suitable for Papua New Guinea; culturally relevant assessments should be incorporated to substantiate an appropriate curriculum. The Papua New Guinea National Department of Education, Papua New Guinea Vision 2050 (NDoE, 2010a) and the Papua New Guinea development strategic plan 2010-2030 (NDoE, 2010b) articulate the Papua New Guinea government's commitment to raising education standards as a Millennium Development Goal in the National Education Plan (2020-2029) (NDoE, 2020). However, due to teachers' limited English ability, a bilingual curriculum (Devette-Chee, 2021a) proved challenging and problematic for both students and teachers to teach and assess.

Summary

The literature review has examined and discussed the essential aspects of conducting assessments using differing types of assessments such as formative and summative assessments. Different methods and data sources were used to collect data and evaluate student work, for instance tests and assignments, which were important for teachers to understand. Understanding these two key assessment components was vital for improving the implementation of assessments in Papua New Guinea primary schools.

After extensively searching the literature about curriculum assessment from Papua New Guinea and neighbouring Pacific Island countries, there is very little reference about teachers' perceptions of curriculum assessment in the South Pacific Region. Teacher perceptions, understandings, and knowledge about student assessment are vital as they are the key implementers and interpreters of the curriculum in the Papua New Guinean education system. As a developing country, Papua New Guinea still struggles to align its assessment procedures and processes with those used in more developed countries. In Papua New Guinea, the distinctions between assessments can vary between rural and urban schools, as broader socio-cultural and economic developmental contexts influence these settings. This includes the impact of technology, school infrastructure, social issues, and teachers' professional preparedness for conducting a range of assessment practices.

In Chapter 4, I present the research methodology, methods, processes, and procedures employed for this study.

Chapter 4

Research methodology and methods

Introduction

This study is located within a critical–interpretivist paradigm that seeks to understand teachers’ assessment practices from their own perspectives while also interrogating the power relations and inequalities that shape schooling in Papua New Guinea, and this stance naturally lends itself to a qualitative case study design with participatory elements in which teachers act as co-interpreters of their classroom assessment practices.

The aim of the study was to investigate and identify the extent to which teachers in Papua New Guinea understood how to utilise a range of assessment practices in primary schools to improve student learning. To explore this topic coherently, I developed an emic understanding of the different assessment practices used by primary school teachers in Papua New Guinea’s Grade 6 classrooms, situated within reflective discussion with those teachers. In this chapter, I describe the methodology and methods employed in this study, including the paradigm choice, my insider research positioning, the case study research design, and the participatory action research approach utilised. The fieldwork, including the methods of data gathering, is discussed, and I consider the ethical issues and obstacles encountered at the schools.

Beginning: reflections on my insider positionality

In January 1988, at the tender age of 16, I left home for two years of teacher training at a teachers’ college, preparing to become a primary school teacher. I enrolled in a teacher’s college in a province away from home and was trained to teach an objective-based curriculum. The course was a two-year certificate program in primary teaching. In this generalist teaching approach, primary school teachers were prepared to teach seven subjects: English, mathematics, science, social science, arts, physical education, and community life. The focus of that curriculum was for teachers to concentrate on teaching the core subjects of English, mathematics, science, and social science, as the government believed in employment after education.

In those days, the other subjects-physical education, arts and community life-were given low priority, as they were less valued. This type of program was similar to those found in pre-service primary teachers’ curricula today. I graduated in 1990 and

started my teaching journey at the age of 18 in rural and some of the most remote schools in Papua New Guinea. Only three of those 15 years were spent in urban and semi-urban settings.

The days spent travelling to the rural schools were extremely exhausting. Sitting for hours on passenger trucks and boats, enduring long and hot journeys, I often wondered if I would arrive safely. In those crowded conditions, I sat with strangers moving through unfamiliar landscapes from the coast to the mountains. I smiled to hide my fear, which threatened to bring me to tears. Striking up conversations with fellow passengers proved challenging since we did not share a common mother tongue, and my Tok Pisin dialect was unfamiliar to the rural population. The Indigenous locals spoke or understood English only sparingly, except for a few who had received some form of education.

Who were those people who would greet me? Would they be friendly? Reaching the school, wherever it was located, felt like a relief. Often arriving late at night, the headteacher would be awaiting my arrival with the key to a typical rural home replete with leaking roofs, broken floors and walls, and the buzzing of mosquitoes. Then, the challenging task of teaching began in broken classrooms with wet floors, with or without desks and books, and with limited school supplies. With support from other teachers and head teachers, I started to piece together lesson plans.

At first, it was not very comforting. I tried to understand the students and their cultures, and only then was I able to assimilate into the environment. I began to enjoy exploring different villages, climbing mountains, walking through valleys, crossing rivers, fishing, gardening, crafting, attending Easter festivals, and living and working with teachers, students, parents, and the broader school communities for 15 years in various primary schools. I experienced traditional and everyday Indigenous lives. This experience significantly changed my perceptions of how urban communities are privileged in Papua New Guinea, where they often take things for granted, such as access to proper schools for their children, clean water, electricity, healthcare facilities, and at least one balanced meal a day. The rural population misses out on these opportunities for a better life.

The demands of the Papua New Guinean education system, including both structural and curricular changes from an objective-based to an outcomes-based

approach, were beginning to impact my ability to teach in primary schools. I decided to upgrade my qualifications with a degree specialising in curriculum studies. The qualification upgrade prompted me to leave primary teaching and move to tertiary education at Madang Teachers College in 2008 to 2009, where I began teaching pre-service teachers, first at my former teachers' college. In 2012, after completing my Master's degree in New Zealand. I taught at Divine Word University's Wewak Campus, where I provided pre-service teacher training in East Sepik Province, my hometown.

Eighteen years later in 2023, as I embarked on my fieldwork I entered the familiar primary school settings for my data collection. The socio-cultural contexts and relationships were all too familiar to me as I entered Samill and Kofaik Primary Schools' grounds at 8:00 a.m., but on different school terms and days.

Fieldwork in Papua New Guinea

The fieldwork began in April and ended in September 2023. To achieve the study's aims of exploring the lived experiences of participants of teaching and learning, which measures students' learning, I employed three data-gathering methods: semi-structured interviews, lesson observations, and document analysis. Initially, I conducted semi-structured interviews with the participants, followed by observations of their lessons and a document analysis based on the observed lessons. This triangulated approach provided me with a comprehensive understanding and perspective on what the teachers were doing, why they were doing it, and how change could be implemented.

Insider research

In this study, I identify as an insider researcher, a position that potentially provides me with insight into the experiences of the teachers in the two case study schools; one urban and one rural, in the East Sepik Province of Papua New Guinea. Wilson et al., (2022, p.43) discuss "researcher's identity and positionality can influence all aspects of research, including the research question, study design, data collection, and data analysis". Accordingly, Costley et al., (2010, p.1) emphasise that "when researchers are insiders, they draw upon the shared understandings and trust of their immediate and more removed colleagues with whom everyday social interactions of working communities have been developed".

Sikes and Potts (2008) explain the importance of insider positioning because it not only provides access to individuals and/or phenomena under investigation but also highlights how elements of 'insidership' are important aspects of the examination that must be acknowledged. As a novice researcher, I considered Sikes and Potts' (2008) reference to how an emic positioning contours access to schools and participants, research methods chosen, establishing relationships in the field, and interpreting findings. Initially, I was critical of my behaviour, and my self-reflections at the end of every day helped me prepare for the next day more effectively. At times, I felt overwhelmed trying to navigate my way around, especially when I realised at the last minute that the teachers were unavailable for the interviews and lesson observations.

Bukamal (2022) has described her experiences of conducting research as an insider and trying to deconstruct it from an outsider's perspective at different stages of her study in United Kingdom classrooms and schools. Her experience resonated closely with my fieldwork experiences in Papua New Guinea. With experience as both an insider and a teacher trainer, I discovered through my previous classroom observation work that many teachers, regardless of the research setting, often feel apprehensive about being observed. While I aimed to be seen as an insider during interactions and interviews with the teachers, I also worked to establish my identity as an outsider and a non-participating observer during classroom observations.

However, maintaining a non-participating observer role was challenging, especially in Papua New Guinea. It was even more difficult when I offered suggestions during lesson reflections for teachers to adjust to changes. During the interviewing and doing of lesson observations, it was tempting at times to jump quickly to my 'insidership' offering and directing instead of guiding the teachers to make their own decisions. How to negotiate my 'insider status', which was a potentially risky intrusion, especially in decision-making that involved determining what, when, and how teachers teach their lessons, was a constant presence. They had a standards-based curriculum to implement, and their choice of lesson topics was guided by the plans they had for the term. I was conscious that I had to remain neutral.

During my fieldwork, I interacted with the teachers on various social occasions, often over meals and while cooking, as part of our daily interactions. I shared my stories with some locals and listened to theirs. During our time together, we discussed and

reflected on our experiences of teaching and living in Papua New Guinea I believed I had a good understanding of the cultural contexts and geographical locations, as well as familiarity with the issues teachers faced while teaching. In rural schools, the shortage of teaching and learning resources was an issue with which I was all too familiar. However, the behaviours of the local tribes often extended beyond the boundaries of the villages. They exceeded my expectations and experiences, for example, the prevalence of local communities fighting on school grounds.

Knowledge, it has been suggested, is developed by being situated in communities of practice (Lave & Wenger, 1991) and situatedness emerges from the interplay between the researcher's position as well as the context in which they exist. During the time teachers and I spent together, we discussed and reflected on how assessment practices in their lessons were being utilised, as well as my interviews with them about their pedagogic practices.

Research design

The design adopted for the research was a bounded case study. My study involved two schools, four teachers, and 33 students from each class. Scholarship has described how case studies are used to study a phenomenon in its natural setting over a period of time involving classroom-based observations (Cohen et al., 2007; Corbetta, 2003; Cresswell, 2007; Diop & Ersi, 2020; Lincoln & Guba, 1985; Starman, 2013). Corbetta (2003) has further described a case study as an in-depth investigation of a specific person, group, event, or organisation, aimed at understanding a complex issue or phenomenon in its real-world context. Similarly, Cresswell (2007) has emphasised that it involves a detailed analysis of the subject's history, characteristics, and experiences to identify patterns and causes of behaviour or to comprehend the factors contributing to a specific outcome. Yin (2009) further states that case studies are advantageous for analysing current events, especially when relevant behaviours cannot be altered.

A case study incorporates two types of evidence: direct observations of the ongoing events and interviews with the individuals involved. The distinct advantage of case studies lies in their capacity to utilise a diverse range of evidence such as documents, artefacts, interviews, and observations that may not be accessible in a standard historical analysis (Cohen et al, 2007).

The focus of my study and the research questions that initiated using a case study approach pertain to a contemporary issue regarding teachers' understanding of assessment practices within schools in Papua New Guinea. The Papua New Guinea government's periodic implementation of educational reforms has significantly impacted both teachers and students, who have encountered ongoing challenges in adapting to the changes and their inherent complexities.

My study involved two case schools and purposely sampled four teachers. Teachers were represented using pseudonyms and I observed four teachers practically teaching four English lessons each in their classrooms, delivering meaningful and engaging lessons on listening, handwriting, grammar, and spelling while conducting formative assessments to collect students' scores. I used the following three criteria to select the teachers:

1. five to ten years of teaching experience,
2. qualification degree/diploma, and
3. having been teaching Grade 6 at the time of the study.

I recruited four Grade 6 teachers, two from each of the two schools. Although gender was not a requirement, an equal number of male and female participants served as coresearchers. Table 4.1 presents the teachers' biodata and Table 4.2 shows the starting and completion of data collection at the schools.

Table 4. 1 Teachers' biodata

Name	School	Qualification	College attended	Date graduated	No. of years teaching	Class taught	No. of students
Noko	Samill Primary School	Degree in primary teaching	Divine Word University, Wewak campus, East Sepik Province	2014	9	6a	33
Rami	Samill Primary School	Diploma in primary teaching	Reverend Maru Teachers College, Wewak, East Sepik Province	2020	3	6b	33
Waka	Kofaik Primary School	Diploma in primary peaching	Balop Teachers College, Lae, Morobe Province	2014	9	6a	34
Kavi	Kofaik Primary School	Diploma in primary teaching	Pacific Adventist University, Sonoma campus, Rabaul, East New Britain Province	2016	6	6b	32
Total no. students							122

Table 4. 2 Duration of data collection, 2023

School type	Term	Months	Weeks per term	Weeks spent
Rural: Samill Primary School	2	April–June 2023	11	9
Urban: Kofaik Primary School	3	July–September 2023	10	8
Total weeks				17

Sampling strategy

Sampling methods refer to systematic techniques used to select a representative subset. For this study, a purposive sampling was used to collect data and draw inferences about the characteristics and trends of the entire population. According to Patton (1990), “The logic and power of purposeful sampling lay in selecting information-rich cases for study in depth. Information-rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the research” (p. 169). Purposive sampling was selected for the study to select participants from two primary schools in the East Sepik Province of Papua New Guinea, which were situated in two different schools. Kofaik Primary School was an urban school, funded by the government, and Samill Primary School, the rural school, was aligned with and funded by a Catholic agency. Both schools were established in the 1960s and played a significant role in the primary education of the province in which they were located. Reputationally, they were highly regarded for graduating students who went on to hold higher positions in the government and private sectors. Kofaik Primary School was one of the five largest schools in the province and continues to expand to meet the growing population of the province. Samill Primary School was one of the well-known and respected primary schools in that rural setting from the 19th to the 20th centuries. It was one of those outstanding rural schools that attracted many students. Recent social problems affecting the school have led to a decline in student enrolment, which has resulted in a corresponding increase in teacher turnover.

Participatory action research and co-production of knowledge

In this study, participatory action research is enacted in a modest way: while teachers did not co-design the overall research questions or broader action cycles, they participated as reflective partners who discussed their assessment practices, interpreted observation notes with me, and identified small, context-appropriate changes they could trial in their own classrooms, meaning the design is closer to a qualitative case study with participatory, rather than fully collaborative in the participatory action research features.

The strove for a culturally responsive and sensitive approach by challenging dominant Western-centric paradigms that often promote a singular, objective perspective. It advocates for a pluralistic epistemology in participatory action research, which entails acknowledging the validity of diverse epistemological frameworks and actively integrating local and indigenous knowledge into the research process. Participatory action research transcends the confines of Western-dominated perspectives and in my endeavour to foster a more equitable and inclusive research environment. I utilised participatory action research as a vehicle to prioritise the voices and experiences of teachers and students (Oliveira, 2023).

The fieldwork conducted at the two schools sought to foster collaboration among the four participants: Noko, Rami, Waka, and Kavi while navigating the complexities of cultural norms and belief systems. Similarly, the process of knowledge acquisition integrated within our shared cultural expectations incorporated indigenous cultural protocols and boundaries. I employed a participatory action research approach to address the research questions because I wanted to include a shared interpretation and understanding and draw on collaboration as a part of the research process. Participatory action research has been used to take action to bring about social change.

Kindon et al. (2008) and Oliveira suggest that the efficacy of using participatory action research in education is because it is action-oriented, emphasising the interaction and communication between researchers and participants to create new knowledge through the collection and interpretation of data for social transformation. Kindon et al. (2008) and Oliveira (2023) have also claimed that at the heart of the participatory action research approach is collective work, where people share resources and engage in self-reflective inquiry, undertaken by both researchers and participants, to understand and

improve upon the practices in which they participate and the situations in which they find themselves.

Taking a participatory action research approach to this study also encouraged and stimulated the co-production of knowledge. Dounghunnes and Vicars (2023), in a study of Thai primary schools, reflected the importance of a collaborative approach. However, everyone else involved in the research process was involved in negotiating access and of being aware of the importance of establishing a culturally appropriate, sensitive, and safe partnership. This necessitated mutual interest, equality, and a blend of respectful and modest behaviour, alongside an explicit request for non-preferential treatment (Dounghunnes & Vicars, 2023). Treating participants and others involved in the research equally and fairly during the research process required trustworthiness. Co-production and collaboration have been recognised for their ability to enhance the quality and significance of research, as well as their impact on policy and practice (Kindon et al., 2008).

Cohen et al. (2007) suggest that in educational research, teachers and students participate as co-producers of knowledge and become involved in the research process. The notion is supported by Redman et al. (2021). According to Honingh et al. (2020), the co-production model has gained popularity in recent years within primary schools, as it encourages collaboration through the sharing of information. Participatory action research also encourages the sharing of power with stakeholders and researchers working together. Here, they develop the agenda, design and implementation of the research, and interpret, disseminate, and implement the findings (McTaggart, 1991; Oliveira, 2023). Co-research is an exchange of knowledge through participatory action research (Redman et al., 2021). In my study, a co-researcher approach enabled participants to take responsibility and ownership in the knowledge creation process.

As part of the co-production process and engagement in the participatory action research model (Appendix A), I participated in additional school activities. This included conducting a teacher profession development and community initiatives, where I served as a guest speaker to discuss the importance of education for women in Papua New Guinea by speaking to Grades 6, 7, and 8 girls at Kofaik Primary School. My active involvement in the school's work culture showed my genuine commitment to

collaboration, partnership, and mutual support among the teachers and the school. Through this additional interaction, we exchanged experiences.

The participatory action research approach has taught me the importance of sharing ideas, working with others as research partners, respecting different opinions, and stepping outside my comfort zone. Using participatory action research was an interactive process, as I aimed to understand participants' perspectives on various assessment types and their applications in teaching and learning. Additionally, using the participatory action research approach, I gained a clearer understanding of what an interpretive study entails, not just with the participants, but from the outset, which helped me demonstrate and earn respect and trust from everyone involved. As an insider researcher, I discussed my teaching experiences with the teachers to put them at ease. I asked the teachers about their term and yearly programs, and I was surprised to learn that three of the teachers had no lesson plans prior to this study, which felt like a slap in the face for me as a teacher educator. This was a reality of theory versus practice. What was taught is theory will not clearly reflect the reality out there in the world of the classroom.

The four steps involved in completing the teachers' lesson observations are outlined in the participatory action research cycle, as shown in Figure 4.1 below.

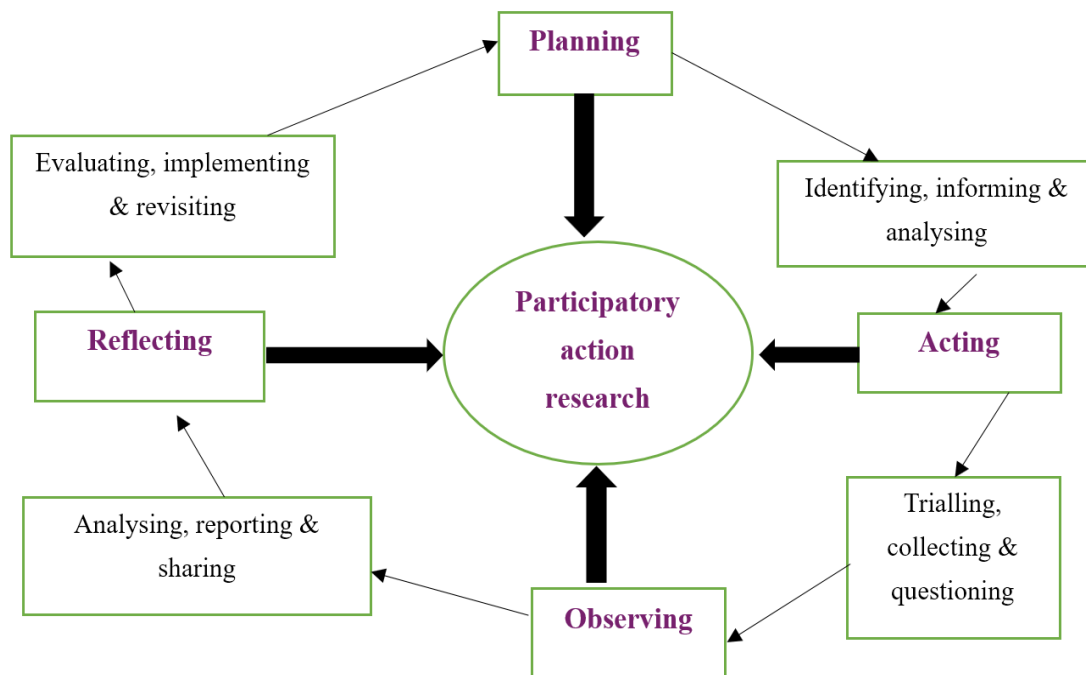


Figure 4.1 The participatory action research cycle

Step 1, Planning

Firstly, teachers and I consulted their class timetables to identify lessons and review their lesson plans and assessment activities before they taught their lessons. The teachers and I worked together to discuss how they could improve their lessons. They were asked to explain their lesson plans as partners. The teachers referenced that they were caught between the outcomes-based curriculum and the standards-based curriculum, which they found confusing. As the standards-based curriculum had yet to be fully implemented across all subjects and grades due to a shortage of curriculum materials, the outcomes-based curriculum was still being used to plan and teach some lessons in some subject areas. This disclosure was surprising to hear and thought-provoking for me as a researcher trying to bring about change in education; these experiences could discourage and demotivate.

Step 2, Acting

All four teachers delivered their scheduled lessons. This phase constituted the most critical phase in the participatory action research, as it is where the underpinning theoretical frameworks which translated into practical applications within the classroom environment. The initial plans were executed and throughout this phase, the participating teachers facilitated opportunities for students to engage with the new

material through a diverse array of activities, including pair work, group tasks, and individual exercises. Throughout this phase the teachers employed various instructional techniques that incorporated songs, stories, and poems. Students were encouraged to apply the newly acquired English language skills in a communicative manner.

Step 3, Observing

In the implementation of the lessons, I observed all four teachers' lessons and took detailed notes on their lesson presentations. During the observation phase, I observed the teachers' strengths and weaknesses connected to assessment in each session. Teachers did their best to assist students in completing their activities and provided constructive feedback. I realised that some of the lessons went beyond the 30-minute duration. It happened for two reasons: 1. The teacher spent too much time explaining the lesson content. 2. Students did not complete the activities on time, so teachers gave them extra minutes to complete their assessments. I was surprised to learn that the teachers did not fully understand the practical application of the two forms of formative assessments: assessment *as* learning or assessment *for* learning.

Step 4, Reflection

This was the crucial step for reflection, change, and improvement. The four teachers and I reflected on the lessons presented, reporting and making suggestions for improvement in the upcoming lessons yet to be taught. All four teachers expressed concerns that their biggest problem in conducting assessments was that the students lack English comprehension. They could not fully understand the instructions in English. Using these four steps of the participatory approach, I learned about the teachers' understanding of assessment *as* learning and assessment *for* learning: formative assessment. However, it was in the reflection step that as new lessons were discussed, and as the teachers prepared for the following lesson, they demonstrated improvement in creating authentic lesson plans and lessons that stimulated learning but need more improvement.

Each data collection method contributed differently to answering the research questions. Semi-structured interviews provided insight into teachers' understandings, beliefs, and reported uses of assessment. Classroom observations enabled examination of how assessment practices were enacted in real time. Document analysis (e.g., lesson plans, assessment records, students' work) offered further evidence of how assessment information was generated, recorded, and used.

Together, these methods allowed the research questions to be addressed from complementary angles.

Semi-structured interviews

A semi-structured interview is a conversation between a participant and a researcher, conducted in a flexible and open-ended manner. It is not just an ordinary dialogue; rather, it is a purposeful conversation with specific objectives to achieve, and it should be well-guided by the researcher (Creswell, 2005). DeJonckheere and Vaughn (2019) suggest that a semi-structured interview is used to gather information from key participants who possess experiences, attitudes, and beliefs pertinent to the subject of the interviews, which posits the collection of reliable data.

In the semi structured interviews, I used a checklist of guided questions based on the four supporting research questions below (Appendix B), which framed the interview. Each supporting question had guided questions that helped me explore the topic more deeply and collect information about how teachers teach and assess students. Bell (2005) advocated for constructing questions that are meaningful and effectively measure what they aim to identify in terms of trustworthiness and reliability. As a novice researcher, I did my best to work with the following questions, applying the two aspects of research—trustworthiness and reliability to collect the desired outcomes:

- a) What were the primary school teachers' understanding of using different types of assessment in teaching and learning?
- b) How did applying different assessment types affect student learning in primary schools?
- c) What existing assessment methods did teachers apply to review student learning, and how did they utilise this data in their teaching?
- d) How could professional development assist teachers in improving their assessment practices?

These four questions were put to each teacher. I provided them with the interview schedules (Appendix Q), which were flexible and negotiable, ensuring they were aware of the different days and times for their interviews. The interviews were scheduled from 3:00 pm to 4:00 pm, lasting one hour each for the teachers. However, not all were

conducted at the scheduled time, as the times varied between the two schools. All interviews were conducted in various locations, such as libraries and outside platforms within their respective schools, not always in their classrooms.

Interview protocol in schools

During the interviews, I sat on a chair next to a table between the participant and the researcher, which is a typical scenario in a Papua New Guinean school classroom. We faced each other during interviews conducted in the classroom, on the outside platform, in the library, or in the senior teacher's office. There was a sense of equality and balance of power as an accepted way in Papua New Guinea. In our cultural context, maintaining direct eye contact during interpersonal exchanges was not deemed acceptable; thus, it held less significance compared to other cultures.

All interviews were tape-recorded and audio-recorded. I used two recording devices: a mobile phone voice recorder and a standard audio recorder. Two recorders were used because I feared losing the recorded interviews if either was damaged; I had a backup. The usual audio recorder was placed between the participant and me, against an exercise book for better recording. The mobile phone recorder was held in my hand so I could have it closer to the interviewers to record the interviews. I made it clear to the participants that, in the event of losing my data, I had used two recorders. They understood my situation and were happy with two recorders; however, it was not always enjoyable or comfortable to use two recorders.

Transcription of the interviews

Sixteen interviews were conducted, four per teacher, in the following order: Question 1 for Interview 1, Question 2 for Interview 2, Question 3 for Interview 3, and Question 4 for Interview 4 (refer to the research questions above). It took me four -to-five weeks to complete each interview for each teacher, but at different schools, terms and times.

From April to June for Samill Primary School, and from July to September for Kofaik Primary School. All data collected was saved on my laptop and on the recorder. I did not use it for any purpose other than this study. The data was not shared with any other person, except my supervisors. Upon returning to the university, the data was saved on the Victoria University researcher's shared folder and will be deleted five years after the study is completed.

The transcribing was done as soon as the interview was completed for every teacher, based on the four interview questions. After every interview, I transcribed the interviews for each teacher, question-by-question. All verbatim data was stored on my laptop. The task of transcribing data, which involves converting all spoken words into written text and accurately recording the interviewee's actual words, was a significant workload in itself. I had the verbatim transcripts for each participant. Later, checking and correcting the grammar to ensure the exact words and meanings were interpreted correctly added more stress to my life. Using software would save me a great deal of time. The six months of data collection were also appropriate, as they provided me with sufficient time to transcribe all 16 interviews (four interviews per teacher). After transcribing the interviews, I provided the transcripts to the teachers for their review and confirmation of the data, allowing for any necessary corrections. They were given two weeks to complete this confirmation process. Once the data was confirmed, I collected the final transcripts from the teachers.

Challenges encountered in the scheduled situated interviews

While conducting the research, I encountered some setbacks that significantly impacted the data collected. The interviews did not proceed as scheduled; changes were sometimes made to accommodate teachers' needs for various reasons. The rural school had problems with youth fighting and using the school playground to stage fights, which caused the suspension of all classes. Another significant disturbance was flooding; nearly half the students had to cross three major rivers to attend class, so they did not come to school when the rivers flooded, and classes were suspended.

On one rare occasion, I witnessed domestic violence at the school with one of my participants, Rami from Samill primary school. The problem originated in the house and then spread to the classroom. In fear for their lives, the students ran out of the classroom while some tried to protect their teacher. He was scheduled for his first lesson that morning when the incident occurred. That situation badly affected him; his classes were rescheduled almost three times.

The urban teachers had numerous personal and professional responsibilities to attend to from 3:00 pm to 4:00 pm, so they requested to conduct the interviews during their lunch hours, from 12:00 pm to 1:00 pm. Lunchtimes were noisy, as the students

played and made noise, but that did not bother me. I ensured I could hear the conversations between the teachers and me for recording purposes.

Sometimes, changes were made due to teachers' unavailability as they attended to various problems. Frequent power and water disruptions affected the school, resulting in the suspension of classes. This happened two or three times a week. The other reason for the change in time was that many holdups and bag snatching incidents occurred at the bus stops; it was unsafe for them to linger on the school grounds after school. Most of the teachers including Waka and Kavi resided outside the school premises. This raised concerns about our safety. I was also mindful of my daily travel to and from the urban school. I felt my life was also in danger, so I followed the teachers' suggestions for interview dates and times. Hence, both schools had issues that were difficult to control, and it seemed that students in both schools missed out on important lessons, creating learning gaps as they progressed from one grade to the next.

Ethnographic classroom observations

When conducting ethnographic observation, the researcher's role is to identify meaning-making and how teachers, students, and children in various learning environments respond to issues that directly affect their learning and the teachers' performance (Monteiro et al., 2021; Pahl, 2007, 2009; Pahl & Kelly, 2005). Using a classroom observation checklist, as suggested by O'Leary (2020), enables researchers to systematically evaluate teaching and learning within a classroom. It provides a structured approach for them to assess various aspects of a lesson, including interactions between teachers and students, classroom management, and student engagement. These checklists can be used for formal observations, informal walkthroughs, peer evaluations, or self-reflection (Hong et al., 2020; O'Leary, 2020; Windsor et al., 2022). The checklist must contain precise and explicit criteria that can be observed and measured. Steers clear of ambiguous language and concentrates on behaviours that are visible or audible (Cohen et al., 2007). The checklist should provide a method for documenting observations, such as a rating system (outstanding, satisfactory, mediocre, requires improvement) or checkboxes to indicate whether certain behaviours are present or absent, as evident in my classroom observation checklist (O'Leary, 2020).

Following the initial idea of developing suitable classroom observation checklists, a checklist with different criteria (Appendix C) was used to evaluate teaching, learning,

and assessment in English lessons in my study. The teachers were scheduled to teach four different English lessons each, totalling 16 lessons. According to the teachers' class timetables, all observed lessons were scheduled from 9:00 to 10:00 am. All English lessons were held in the mornings, in accordance with the nationally prescribed curriculum requirements. Various English lessons were taught, from grammar, spelling, reading, written/oral expression, talking, and listening. Each teacher's presentation was scheduled on a different day of the week. All four teachers completed the expected lesson observations.

Before presenting the first and all other lessons, we discussed the lessons and I reviewed their lesson plans, ensuring that an assessment component was included. This was done during the planning step 1, as anticipated by the participatory action research approach (Appendix A). It continued for all four lessons for each teacher.

During the lesson observations, I sat quietly at the back of the classrooms using a lesson observation checklist of items (Monterio et al., 2020) (Appendix C) to comment on teachers teaching against nine performance indicators: a) who evaluated, b) who initiated the oral interaction, c) oral questions, who is questioned, d) use of assessment data, e) type of assessment and assessment tools f) level of cognitive complexity g) oral and written feedback h) teacher preparedness and i) student preparedness.

The observational data were from four lessons: two from Samill Primary School and two from Kofaik Primary School. This was transformed into written text for analysis. Table 4.3 presents the lesson plans prepared by the four teachers, and Table 4.4 displays the lessons observed for each teacher.

Table 4.3 Lesson plans per teacher

School	Teacher	Lesson plans	Transcribed data
Samill Primary School	Noko	4	1
	Rami	4	1
Total		8	2 documents for analysis
Kofaik Primary School	Waka	4	1
	Kavi	4	1
Total		8	2 documents for analysis

Table 4.4 Lessons observed per teacher

School	Teacher	Lessons observed	Transcribed data
Samill Primary School	Noko	4	1
	Rami	4	1
Total		8	2
Kofaik Primary School	Waka	4	1
	Kavi	4	1
Total		8	2

Teachers' behaviour during lesson observations

During the lesson observation, the Hawthorne approach was evident in how both teachers and students adjusted their behaviour in the classroom when I was present as the observer. The Hawthorne effect refers to a phenomenon where individuals modify their behaviour due to the awareness of being observed. Essentially, when individuals are aware that they are under scrutiny, they tend to modify or adjust their actions.

The Hawthorne effect was observed and witnessed in this study. This awareness often led participating teachers to modify certain aspects of their actions in response to the attention they were receiving.

The participating teachers have undergone many changes, which led me to reflect on their previous lesson plans and how they prepare to teach their students. One significant change observed in both schools was the quality of lesson plans and the

attention paid to teaching using multiple skills to convey knowledge. Teachers became more aware of themselves and made an effort to be punctual in lessons and other school activities. In the weeks/months leading up to the study, teachers did not have lesson plans, not even a single one. While I was present, as the study required lesson plans for lesson observations, they evolved from being disorganised and unstructured to being organised and focused.

In the actual presentation of the lessons, the four teachers delivered exciting and engaging instruction, providing opportunities for their students to participate in discussions. They tried to teach and write the best English ever during their lesson demonstrations, which was interesting. In nearly all the lessons, they aimed to deliver the best lessons possible using effective teaching strategies, such as questioning and incorporating games and poems. Kavi from Kofaik Primary School taught an English Listening lesson by recording different animal sounds on his mobile phone and playing a guessing game with the students in class. It was an exciting lesson as he had the students guess the names of the animals, and almost everyone participated. I found that lesson to be motivational, as students would also imitate the animal sounds to clarify their understanding and correctly guess the names.

Observations indicated that they employed reinforcement strategies to correct students' behaviour and encouraged everyone to join in. They moved around the classrooms, correcting individual students' activity books and providing feedback. A debriefing and reflection on all lessons were conducted, allowing teachers to identify their strengths and weaknesses in teaching and learning—all reflections aimed to enhance the planning and instruction of lessons.

As the researcher, I was mindful of my behaviour and the effect it would have on the participants throughout the research process. I was cautious of how I represented the university and myself to avoid any bias in the research undertaken. I mitigated these issues by establishing a positive and trusting working relationship with the teachers, making them feel more comfortable and less self-conscious, thus encouraging more natural behaviour. Designing lesson reflections that closely resemble the natural demonstration of lessons can help students engage more authentically and naturally. I was flexible in my approach, collecting data for my study while assisting teachers in improving their lessons where it aligned with my research aims. Teachers were assured

that their responses and all discussions would always be kept confidential, thereby fostering trust and confidence throughout the research process.

Students' behaviour during lesson observations

It was observed that student behaviour varied between the two schools. At Samill Primary School, the rural school, students were quiet and less responsive to teachers' questions, whereas at Kofaik Primary School, the urban school, the opposite was true. I found that Kofaik Primary School students tended to be quite loud and disruptive in class; everyone wanted to answer the teachers' questions and be seen as the best students. This sometimes made it difficult for the teacher to maintain class control and discipline.

Occasionally, it was noted that teachers spent valuable time on class management rather than on teaching. There were instances when the students were more careless, especially among the male students; they seemed indifferent to who was in the room, lying on the desks with their school bags still on their backs and acting as if they knew every answer to what was happening in the classroom. This was particularly evident in Waka's Grade 6 class.

It was not the same at Samill Primary School. In both Grade 6 classes, students were quiet, obedient, and listened attentively to their teachers. Their autonomy was restricted because a new person was in the room; they were careful with their behaviour and responded to their teachers only when necessary. Only one or two students, primarily males, would raise their hands to answer while everyone pretended not to know the answer. Female students sometimes felt that my presence in the classroom instilled fear, stifling their right to express themselves verbally, as evidenced by their lack of participation. Noko would occasionally direct questions to individuals to encourage them to participate in her lessons. Ramil sometimes banged the ruler on the table to engage his students and occasionally raised his voice, showing dissatisfaction with their attitudes in class.

In Samill Primary School, gender significantly influenced who was verbally active and participated effectively in class. At Kofaik Primary School, both genders excelled in class participation. However, a few males sometimes exhibited negative behaviours that often disrupted the smooth flow of lessons and demanded the teachers' attention.

In general, the schools' environments and students' backgrounds significantly affected their learning behaviour, ultimately influencing how students' behaviours were modified at the two schools. To mitigate this challenge, it was discussed during the lesson reflection that teachers should work according to their natural teaching styles and manage their classes as they see fit, using their classroom rules to address students' negative behaviour for improvement. They would employ reinforcement strategies and teach lessons that cater to all genders and ability groups.

Document analysis: teachers' lesson plans and students' activity books

Document analysis is a data-gathering method whereby primary and secondary materials related to a particular research topic are collected and analysed to gather information about the study. Bowen (2009), in examining the function of documents as a data source in qualitative research, affirmed that, "Document analysis is a systematic procedure for reviewing or evaluating documents—both printed and electronic material" (p. 27). Morgan (2022) suggested that document analysis involves analysing various documents. I collected two documents in my study, teachers' lesson plans and student activity books, for data collection.

Only one teacher out of the four made copies of all four of his lesson plans and I took photographs of the lesson plans from the other three teachers. A total of 16 lesson plans were collected from the four teachers. I later assembled and studied the lesson plans to transform raw data into written texts in preparation for data analysis. I used a checklist of five variables of what was expected in the lesson plans: a) lesson plan focus, b) teaching contents, c) student participation, d) assessment process, and e) teacher preparedness/involvement (Appendix D). Within the main five focus areas, other specific variables were listed to measure the statement by placing a 'yes' or 'no' next to the items measured.

All students' activity books were collected from each of the 16 lessons. Five books from each class were later chosen randomly for analysis. Different student books were selected for each lesson. I took photographs of all the student workbooks and later downloaded them to my laptop. The workbooks were later printed to prepare transcripts for document analysis, using a checklist of items. From the many students' activity books collected, only 60 were analysed. Not all activities were done individually. Some activities were conducted in groups of five or six, so the documents analysed varied

depending on the group and individual assessments. It turned out that each urban and rural teacher did one group assessment in one of the four lessons taught. This meant that one lesson was a group assessment, and the other three were individual work. I did not use the group assessment as it was difficult to identify a particular student.

There were 30 student documents for each school, 15 per class, totalling 60 overall. I used a checklist of items to assess students' performance, indicating yes or no according to the variable on the checklist (Appendix E). Preparing student activity books for data analysis, I used the same approach taken for lesson observations and the teacher's lesson plan, where I put all the students' documents together and converted the raw data to written texts (transcripts) by using the variables a) student understanding b) assessment process and c) student preparedness /involvement as stated on the document checklist. For example, in Lesson 1, all five books were transformed into one document for analysis, followed by Lessons 3 and 4. After this first step, each class had three documents for data analysis, resulting in a total of 12 documents for data analysis across all classes. The data analysis was conducted separately for the two schools to enable comparison between teachers' and students' performance and to identify how teachers understand assessment and can work to improve student learning.

Thirty student books were collected, 15 from each class, and examined. Tables 4.5 and 4.6 present the students' activity books collected and analysed for the schools.

Table 4.5 Student activity books per lesson for Samill Primary School.

Samill Primary School			
Teacher	Lesson no.	Assessment type	Books collected
Noko	1	Individual assessment as learning	5
	2	Group assessment: assessment for learning	Nil
	3	Individual assessment as learning	5
	4	Individual assessment as learning	5
	Total books for Noko		15
	Books analysed for Noko		3
Rami	1	Individual assessment as learning	5
	2	Group assessment: assessment for learning	Nil
	3	Individual assessment as learning	5
	4	Individual assessment as learning	5
	Total books for Rami		15
	Books analysed for Rami		3
Total books collected at Samill Primary School			30
Total books analysed at Samill Primary School			6

Table 4.6 Student activity books per lesson for Kofaik Primary School

Kofaik Primary School			
Teacher	Lesson no.	Assessment type	Books collected
Waka	1	Individual assessment as learning	5
	2	Group assessment: assessment for learning	Nil
	3	Individual assessment as learning	5
	4	Individual assessment as learning	5
	Total books collected for Waka		15
	Total books analysed for Waka		3
Kavi	1	Individual assessment as learning	5
	2	Group assessment: Assessment for learning	Nil
	3	Individual assessment as learning	5
	4	Individual assessment as learning	5
	Total books collected for Kavi		15
	Total books analysed for Kavi		3
Total books collected for Kofaik Primary School			30
Total books analysed for Kofaik Primary School			6

A total of 12 documents were created for the two schools; six per school were analysed.

Thematic data analysis

I used thematic data analysis for my study. Thematic analysis is a common approach in qualitative research and is employed across various disciplines. It emphasises identifying, analysing, and interpreting qualitative data patterns from a range of texts obtained from qualitative data sources (Braun & Clarke, 2006). Creswell and Creswell (2018) emphasise the importance of carefully examining various data sets, such as interviews, observations, and documents, allowing themes to emerge and be organised into broader categories through open coding. For my study, data were collected during interviews and lesson observations. I interacted with the participants through questions, trying to help them understand their experiences, and collected data in a school setting. The data from the interviews were analysed separately from the lesson observations and documents. I analysed the data manually, and for the interviews I conducted open

coding, using different highlighter colours — orange, yellow, and green — and stick-on pads to identify various codes, categories, and themes. The four research questions were used as guides for data categorisation; however, as I delved into the data, I realised that other themes emerged, which I also categorised. I cut out all the responses according to each number and pasted them on a large sheet of paper for a closer view and proper categorisation and identification. That was how the themes were developed and presented in Chapter 7.

Other obstacles encountered at the schools

Considering the curriculum changes in the Papua New Guinea education system, many schools in the provinces where they were located were unable to utilise a standards-based curriculum. Teachers taught and implemented two different curriculum models: outcomes-based and standards-based. The limited curriculum enabled some teachers to share their teaching guides, which sometimes caused inconvenience due to inadequate preparation.

Samill Primary School lacked a power supply, affecting the preparation of handouts and worksheets for students. Although a generator was used, fuel prices were high. There were also frequent fights in the rural area. These fights would start in nearby communities and escalate into the school grounds. The youths used the school as their battlefield, seeking to involve students who were enemies of opposing tribes. Students often got caught up in these fights, resulting in damage to school property. The violence caused some students and teachers to leave school out of fear for their safety. During rainy days, rivers would flood, preventing students from attending classes. Three significant rivers existed, and most students lived on the other side. Crossing floodwaters upstream and downstream was dangerous, so students did not attend classes on those days. When this occurred, classes were suspended for a day or so, which negatively impacted lesson retention and created learning gaps for students.

Government services such as water and power were inadequately supplied in the province's urban areas, which impacted Kofaik Primary School. Classes were suspended on multiple occasions, resulting in disruptions to student learning. Teachers became frustrated as they prepared lessons but were unable to teach. Given the challenges faced by both schools, teachers' lives were at risk, causing them to leave

school earlier than expected. Consequently, teachers were unable to adequately prepare for their daily lessons, and other class preparations were also hindered.

Living in both towns and rural Papua New Guinea is increasingly unsafe. This situation can lead to unnecessary stress and instil fear in teachers, potentially resulting in future health issues. Both schools experienced teachers being removed from the payroll, which substantially affected teachers' performance, indicating a lack of commitment to teaching the very students they were entrusted to educate.

Situated ethics in context

Research practices, both before (starting the research), during (conducting the research), and after (concluding the research), as well as writing and disseminating the results, cannot be separated from the process. Ethical issues are vital for enhancing the quality of research practice and data collection. It is impossible to separate the researcher from the research (Sikes et al., 2003). In participatory action research, which I employed in this study, the researcher must possess the essentials to avoid introducing bias if they are not careful and honest in their approaches to multifaceted research practices.

The individual involved in the research as the researcher, is always present, whether they are perceived as a villain tainting the research design, data collection, analysis, and reporting, or as a 'hero' whose close and impactful engagement is an essential part of the research, or as something in between (Ibrahim, 2015; Sikes et al., 2003). The researcher must be mindful of their behaviour and how they respond to ethical issues that could affect their research (Cohen et al., 2007). Trust and truthfulness are essential elements that enhance the credibility of the study conducted (Burns, 2000). My adherence to procedural and situated ethics draws on the potential of conducting research that avoids stressing participants and requiring them to work under pressure to gain, rather than working in a flexible mode. I was careful not to impose undue influence based on my expectations of teachers, as my role as a teacher educator could have allowed for that. My approach centred on understanding and respecting my participants, the schools, and the community where the research was conducted. This ethical stance I took supports honest accounts from participants and reduces coerced participation.

In the research interviews and data collection process, I allowed for flexibility and a trusting working atmosphere between the participants and me. Most issues related to

interviews and lesson observation schedules were addressed at a convenient time for the teachers. I prioritised their time first, and mine was adjusted later to suit the situations unfolding each day. I adjusted the schedules to accommodate unexpected events, such as school fights, power outages, and water disruptions. I was aware of my positionality and, as a researcher, constantly reflected on my experiences. I weighed my opinions about the research, and having awareness of my participants and the research context was fundamental to the outcome of my study. Situated ethics allowed me to respect my participants in terms of their availability and the time they prefer for the interview. I provided options, and they picked the suitable days and time.

In centring the situated ethics in my study, I could understand and accept the specific context of the schools, including the distance travelled to work and school by teachers and students, the type of work environment, and the availability of resources such as power and other teaching materials. Additionally, I considered the school traditions and routines, such as sports days and church activities, at Samill Primary School, among others. I was also mindful of the cultural norms and practices, including gender-based responsibilities and customary obligations, within the school community and the surrounding local communities.

However, there were times when I struggled emotionally to cope with some situations that arose in school. Still, I maintained control over my emotions while adhering to the university's ethical expectations and requirements, which guided my practice. I did not allow my feelings to cloud my decision-making. Situational ethics enabled me to approach each encounter with an open mind, rather than relying on pre-ordered responses from procedural ethics.

Procedural ethics in action

In the initial preparation for data collection, letters were written to the gatekeepers to obtain permission to access the schools. Letters introducing the topic, aims, and objectives of my study were sent to the provincial education advisor of Wewak, East Sepik Province (Appendix F); Catholic education secretary (Appendix G); and the head teachers of the two primary schools, Kofaik Primary School (Appendix H) and Samill Primary School (Appendix I). After some weeks, permission to conduct my research was granted from all three of them: permission from the provincial education advisor (Appendix N), Catholic education secretary (Appendix J) and Kofaik Primary School

headteacher (Appendix K), and not from the Headteacher of Samill Primary School, as the letter did not reach him. An ethics application was submitted, reviewed three different times, and finally, approval was obtained from the Human Research Ethics Committee of Victoria University. The study was high-risk, so it took a while before approval was granted. Underaged school children were involved in my research, and the Ethics Committee requested that I obtained a Working with Children check, as it was a requirement for Victoria University's ethical requirements when conducting research with children (Appendix P). This was prior to obtaining my ethics approval to conduct the study. Upon ethics approval and obtaining travel permission from the university (Appendix O). I made travel arrangements through my scholarship office and travelled to Papua New Guinea for six months of data collection. The 6-month data collection period, which began in April and ended in September, is shown in Table 4.2. I returned to Melbourne and the university on 16 October 2023.

Negotiating access

To reach the participants, I needed to obtain access from the relevant gatekeepers. This process was quite challenging, especially since I was overseas, and trying to communicate with the gatekeepers proved to be a headache. I had to make numerous follow-ups and provide detailed instructions to contacts in East Sepik Province to help me navigate the process. To ensure that the letters reached the intended recipients. They assisted in delivering the introduction letters to the responsible individuals. It was more challenging, as I had to meet the university's expectations for ethical approval, and the permission letters had to be attached, which made it even more stressful for me to meet the requirements on time. This process required considerable patience and waiting. However, after some time, all gatekeepers eventually granted permission.

It was essential to note that in Papua New Guinea, communication is not as efficient as in the West, so progress would be delayed if people do not follow up on it. It required humans to do that, not through emails, as email follow-ups would not give the desired result. Likewise, when people often did not understand the nature and importance of the initiated project, timing was not a concern to them until someone confronted them verbally.

As Papua New Guineans, we lack practical communication skills; our oral history has influenced the way we act and respond to communication and other social activities.

We may be ignorant at times, pretending to be very busy when, in fact, we are not. If I were to examine sensitivity in my context, I would suggest that it is cultural sensitivity, as the gatekeepers, through culturally embodied experiences, such as the prompt response to the letters, would have jeopardised some vital aspects of my study. This is in relation to their slow response to the permission letters sent.

The study was deemed high risk, in accordance with Victoria University's ethical requirements. This is because it included Grade 6 students from four different classes who were involved in the lesson observations. This was when I was aware that my study was sensitive, as children were vulnerable to exploitative situations and coercion (Australian Code for the Responsible Conduct of Research, 2018), something I had overlooked in my country. It was precarious because the students were under 18 and susceptible to exploitation, which is a very critical issue worth considerable discussions and negotiations in the West.

To meet this requirement and avoid repercussions, I constructed a letter of information and obtained the parents' approval before beginning the lesson observations (Appendix R). All consent forms were signed before my lesson observations; however, the degree of consent granted is immeasurable to Western parents, as these parents would not be as critical as parents in the West. Parents in the West would be more curious and would question the integrity of the research, ensuring their children's protection before signing the forms.

Moreover, understanding and respecting boundaries are crucial to preventing humiliation and facilitating the establishment of long-term relationships, whether overtly acknowledged or not. For example, due to power outages at Kofaik Primary School, the deputy head teacher refrained from hastily sending students home, allowing me time until after 10:00 a.m. She was aware of the scheduled times for teacher lesson observations and collaborated with me periodically, acknowledging my presence. This collaboration was crucial when gaining access to the school, as it was often contingent upon the discretion of the gatekeeper. A positive rapport with the gatekeeper at the entry points significantly contributed to the smooth conduct of research, which was a critical reality in the Papua New Guinea context. The gatekeeper possessed considerable influence over participant behaviour and retained the authority to request the researcher to cease activities and leave the premises. Adhering to established protocols and

demonstrating respect for gatekeeping customs was imperative; failure to do so could impede research efforts. This consideration served as a crucial advisory note for individuals contemplating research in Papua New Guinea, particularly in areas where research practices were infrequent, and the local population might hold traditional beliefs, systems, and cultural norms that they were reluctant to see exploited. Such circumstances could have jeopardised the researcher's reputation and resulted in personal humiliation.

In my study, I followed the gatekeeping process by obtaining permission from the provincial education advisor to conduct research at the primary schools in East Sepik Province. This individual granted access to the schools and welcomed me to the province in accordance with standard protocols. I then visited primary schools in various locations and introduced myself to the head teachers, who were the second individuals to approve access to my participants. As affirmed by Cohen et al. (2007) and Nijhawan et al. (2013), the importance of the informed consent principle was most evident at the beginning phase of a research project, when seeking access to the institution or organisation where the research would take place, as well as gaining approval from those whose consent was required before starting the work. The gatekeepers granted permission to access institutions before the commencement of the data collection process.

I met with the Grade 6 teachers from the two schools at different times at the commencement of my data collection period. According to their school location and the time of data collection, I provided them with the Information sheets (Appendix L) and Consent forms (Appendix M). We reviewed the information with the participants, ensuring they were fully informed of what was expected of them, including the time and commitment required for the study. Teachers needed more clarification on the participatory action research approach, so we discussed the topic and the research approach, which lasted approximately an hour. I informed them that their willingness to participate was voluntary, and they could leave at any time during the research project. They were given two days to review the information and decide whether to consent to participate by signing the consent forms. On the third day, the consent forms were collected. Teachers in both schools were fine with understanding the study's aims, as no questions were raised. It showed that they were fully informed before giving their

consent, making it a voluntary choice. I was prepared every day to listen to their queries and personal problems. They were happy with me as I listened to them and provided answers to their queries. Rescheduling their interview and lesson observation schedules signified their willingness to participate regardless of personal and other issues.

Anonymity and confidentiality

Anonymity and confidentiality concern protecting the privacy rights of participants in every possible way by the researcher. Burns (2000) and Cohen et al. (2007) acknowledge the importance of anonymity and confidentiality in protecting research participants, ensuring their identities are not revealed in any descriptive forms.

In my study, I made every effort to protect the privacy of my participants. I used pseudonyms in my research report to protect the identities of the individuals involved. However, total anonymity and confidentiality cannot be guaranteed. I recognised that this was a concern because everyone at the school was aware of my research project and the participants involved. When I stated that ‘I would protect their privacy rights’, they raised eyebrows; to them, it was a joke. I realised that the only place their real names would not be used is in the research report, where other names were substituted for their actual names. Furthermore, individuals or teachers who did not know the participants were likely those who were not teaching at either school during the study period. Another aspect I identified was that participants informed their friends and colleagues through private chats outside the scope of the research about their involvement in my study. Although I tried to uphold their privacy rights, I felt that it was unlikely to be fully guaranteed. I believe protecting participants’ anonymity and confidentiality was a shared responsibility between the participants and me. Our socio-cultural backgrounds, along with our experiences in Papua New Guinea, an oral society, could influence our perceptions of anonymity and privacy, especially when sharing stories. I found it challenging to maintain the participants’ privacy in Papua New Guinea. Nonetheless, participants have been consistently informed about confidentiality and anonymity throughout the research project. They were aware of this ethical consideration.

Summary

A case study approach was utilised to determine how well teachers in Papua New Guinea understand the various types of assessments when conducting and disseminating

engagement activities to their primary school students. A participatory action research approach was employed in conjunction with the data-informed pedagogy model, which facilitated navigation of the school curriculum and established a pathway for a co-production approach in this study. By adopting a participatory action research approach, I was able to highlight the significance of collaboration and the essential role it played in co-producing knowledge, which afforded the teachers a sense of ownership over the knowledge production process. When introduced and implemented, it immediately offered teachers an opportunity to negotiate ways to enhance their teaching methods, which often went unrecognised despite their diligent efforts under challenging circumstances. One crucial aspect of conducting research involved accessing schools and participants, while also being mindful of ethical concerns throughout the study, from the initial stages to the outcomes. I learnt that the significance of situated ethics is crucial and could have a significant impact on the research if the researcher were not mindful of what unfolds during fieldwork every day. My position as an insider researcher enabled me to recognise the socio-cultural contexts affecting teaching and learning in each school.

In Chapter 5, I provide an overview of the ethnographic context of case study one, Samill Primary School.

Chapter 5

Ethnographically contextualising case study one: Samill Primary School

Introduction

This chapter provides a contextual overview of Samill Primary School, which serves as the first case study in this analysis. The school's administrative structure, where the participants were located, is also displayed, along with general school enrolment statistics for 2023. This chapter also examines the cultural connections of the Wosera Ambelam people, the community in which the school was located, while addressing the ethical and cultural considerations relevant to conducting research. These factors influence various stages of the research process, including preparation, implementation, and subsequent phases of the study. The chapter brings in the emic and etic negotiations that occur, highlighting the importance of cultural responsiveness and contextual awareness in the context of Papua New Guinea. Finally, I present the ethnographic aspects of the interviews and lesson observations as presented by the participants.

Location of Samill Primary School

In the rural and most remote areas of Papua New Guinea, primary schools are situated within striking landscapes that include flatlands, mountain ridges, valleys, grasslands, riverbanks, and islands. The geography and vegetation in these regions are often breathtaking, prompting one to pause and appreciate the natural beauty. Certain schools are so isolated that they present significant challenges for both teachers and students, making travel arduous, particularly in areas where air travel is not available.

Conversely, some schools are readily accessible by road, making it convenient for some teachers and their families. The isolation experienced by some rural schools creates a palpable sense of solitude even before arrival. This atmosphere can evoke a sense of unease, particularly at night when signs of civilisation are scarce, rendering the environment even more daunting. These schools, constructed through considerable effort and dedication, were established with the intent of educating young Papua New Guinean children and equipping them with the knowledge necessary to navigate the world that lies ahead. One of these schools was Samill Primary School.

Walking into the ethnographic and cultural aspects of Samill Primary School

Choosing Samill Primary School for my studies was important because of its cultural diversity. Located in the rural inland area of Wewak, East Sepik Province, Papua New Guinea, it was not as remote as it might seem. The school is accessible by road, requiring a three-to-four-hour drive using public motor vehicles, which are 25-seater coaster buses commonly used for travelling long distances in the province from Wewak town. I want to present the significant cultural practices and ways of life of the local people around Samill Primary School, specifically the Wosera people of East Sepik Province.

A study by Curry and Koczberski (1998) described the Wosera people of Papua New Guinea, commonly known as the Wosera Abelam, possess a rich cultural heritage centred on subsistence farming, a strong sense of community, and traditional customs, including male initiation and spiritual beliefs. Their culture is marked by significant migration and movement, as many young men seek employment elsewhere. Despite being culturally rich, the Wosera district is one of the most densely populated districts, and many people live in poverty due to the scarcity of land. They depend mostly on agriculture and garden produce for survival, which is common practice across the East Sepik Province (Allen et al., 2002).

The cultural language of the Wosera people is Hanga Hundi, also known as Kwasengen. This language belongs to the Ndu language family and is spoken by approximately 13,000 people in the East Sepik Province. The Wosera people, who speak *Hanga Hundi*, are part of the Abelam-Wosera dialect continuum, a larger group of speakers in the Maprik District, another district in East Sepik Province, located approximately 100 kilometres by truck from the Wosera district.

The primary source of livelihood for the Wosera people comes from subsistence agriculture, with yams and taro serving as their main crops, as in many other parts of East Sepik Province (Allen et al., 2002). They are recognised for their proficiency in yam farming, a skill that has been handed down through generations. Young males partake in a phase of isolation and ritual purification, during which they absorb the values and wisdom of their community before returning to the village (Curry & Koczberski, 1998). This phase is viewed as a rite of passage into adulthood and manhood, a practice similar to that in my culture.

The Wosera people maintain their unique beliefs and customs, which are often intertwined with Christian practices and are closely linked to the environment. Certain traditional beliefs and rituals, including those related to crocodiles as a totem animal, are highly valued. They are also recognised for their pottery, particularly bowls decorated with incised patterns and painted faces. In addition, they produce bilums (woven bags), which hold symbolic and cultural significance as practised in other parts of Papua New Guinea (Waiko, 1997).

The Wosera Abelam have a history of migration and movement, travelling between their home villages and other regions, especially West New Britain, a province in Papua New Guinea, in search of employment and opportunities. This migration has significantly shaped their social structure and economic activities, as noted by Curry and Koczberski (1998), who discussed migration and circulation as a way of life for the Wosera Abelam of Papua New Guinea. The societal structure of the Wosera is centred around clans and family ties, emphasising respect for elders and commitment to traditional principles. Migration and movement have led to social stratification, resulting in some individuals gaining increased power and influence. While the Wosera culture is distinct, it is part of the larger cultural mosaic of Papua New Guinea, renowned for its remarkable diversity (Curry & Koczberki, 1998).

The Wosera people, like other groups in Papua New Guinea, take pride in their unique cultural identities and traditions. Most of what is passed on from generation to generation is oral (Waiko, 1986), unlike in most other developed countries, which have written histories. This is unlike some of their Indigenous people, such as those in Australia, who have the Aboriginal Indigenous population, and New Zealand, which has the Maori people. Preserving traditions is accomplished through storytelling, songs, collaborations, and teamwork, ensuring that knowledge, skills, legends, and secretive rituals are lived, shared, and passed down (Benson, 2003). Storytelling is practised throughout Papua New Guinea and other Pacific and Melanesian islands, including the Solomon Islands and Vanuatu.

Background to the establishment of Samill Primary School

The school, illuminated by the gentle light of the rising sun, was surrounded by expansive savannah grasslands and clusters of smaller trees and shrubs, with temperatures increasing as the day progressed. Thirteen local communities, namely

Samill 1, Samill 2, Nai 1, Nai 2, Mal, Hugo, Beth, Nego, Magu, Nara, Mako, Jonno, and Gini (pseudonyms), send their children to this institution for educational opportunities each year.

Samill Primary School has historically excelled in the education of many of the province's elite. However, its reputation has declined over time, influenced by external factors that have impacted behavioural norms, such as the incorporation of ethics clashes, resulting in disrupting student attendance and their commitment to studying and excelling. The institution was initially rated at a level nine, which was the highest school level and structure as recommended by the Provincial Education Authority, but subsequently fell to a level six when the student number dropped in the recent years. It holds the distinction of being the oldest rural school within the South Wosera Local Level Government of East Sepik Province. According to the National Statistics Office (2011), the Local Level Government, which is like the local council area of the Wosera people, where Samill was situated, had a population of 11,351. However, it is expected that the numbers have increased since that time.

Samill Primary School was established during the colonial era by the Australian Sisters of Mercy, who settled in Samill and initiated educational engagement with the local populace through biblical teachings. This institution subsequently expanded its curriculum while maintaining a commitment to Catholic doctrines and philosophies, which remain integral components of the educational program.

The Sisters of Mercy took charge of managing the parish's primary school, which had been established several years earlier, marking the start of formal education introduced by the missionaries. Flaherty (2008) narrates the story of the first Sisters of Mercy sent to Samill, specifically highlighting Sister Madelyne (a pseudonym). She was one of the initial sisters from the Brisbane Mercy Congregation who served as a primary school teacher in Samill from 1957 until Papua New Guinea achieved independence in 1975.

During this time, there was a prevailing belief that education was primarily intended for young men, rather than older men or children, especially girls. That also signified the male dominance of education, which later impacted the injustice done to girls' education in Papua New Guinea. It required many trips to villages and extensive

discussions with parents to persuade them to allow their children to study with them. It was not easy for parents in those days to allow their daughters to attend school.

Therefore, it was a significant achievement when a sufficient number of children of the appropriate age enrolled in Grades 1, 2, and 3. That was the structure when children left school at the primary level, typically in Grade 3, and later continued to Grade 4 and higher in high school. The rich narrative behind the establishment of Samill Primary School was further illustrated by another outstanding Mercy Sister who taught at one of the secondary schools and recently left the country in 2022. She dedicated 51 years to teaching and extending the work of the Sisters of Mercy in Papua New Guinea, especially in the Education Sector in East Sepik Province, since her arrival in 1971 (Post Courier, 2022, November 25).

Founded in 1951 to serve junior primary students, children who attended school for the first time were taught in English, a foreign language they struggled to comprehend. The school was quite large. The most junior-level class had 75 students, the second class had 56, the third class had 40, and the final class had 50, with new students enrolling daily. It appeared that the school's excellent reputation was continuing to grow. This school also served as the demonstration institution for the newly founded teacher training college at Samill in 1957, marking the beginning of its first year of operation. This showed the establishment of primary school teacher training named St Xavier, and teachers were trained to teach the colonised curriculum of mathematics, English, and science. Later, in 1968, the college relocated to Kaindi in Wewak and was renamed Kaindi Teachers College, now part of Divine Word University (Flaherty, 2008).

During the early 1950s through to the 1980s, Samill Primary School was regarded as a fundamental educational institution, prompting families to enrol their children eagerly. During those challenging times when transportation and infrastructure were inadequate, many community members had to walk significant distances to access educational opportunities. Samill Primary School served as one of the most accessible options at a time when Papua New Guinea had yet to significantly establish a formal educational system. The individuals who persevered in their pursuit of education during those years subsequently improved their living conditions. Notably, Samill Primary

School had a legacy of nurturing some of Papua New Guinea's educated elites, who played pivotal roles in the nation's path to independence in 1975 and after.

My connection to the Wosera Ambelam people

The semi-urban environment in which I was born and raised allowed me to form never-ending social connections with other young women who shared similar backgrounds.

Within these groups, I developed lasting friendships with a few girls from Wosera Ambelam as early as my primary school days in the 1980s. We would go to school, walk around, play, tell stories, share food, and help each other with schoolwork while appreciating life as we grew up. I would visit their local villages upon invitation during holidays, spending one or two weeks there, depending on the length of the holiday.

We worked in the gardens but away from the elders who plant yams, the staple food of the Wosera people and a significant cultural icon valued and celebrated biannually in a unique festival; however, it is no longer sacredly honoured as it once was. Yams are only planted by special and skilful elders who know the customary rules or spell used to grow and get a rich, yielding harvest when yams are ready. No one, apart from those special elders, plants yams according to their culture, and that is also similar to mine. Harvesting, distribution, and sharing of yams are also special times and events for the Wosera Ambelam villages.

Planting, weeding, and harvesting were primarily done by girls and women, reflecting traditional gender roles, and I enjoyed working alongside my friends. Laughter echoed across the gardens as we corrected each other's mistakes and joked about our inexperience in planting bananas and other vegetables. As night fell, we would carry our heavy bilums filled with vegetables and make our way along the bush tracks back to the village, which had grown quiet after the day's noisy activities. Most afternoons, after a day of physical activity and dripping with sweat, we would swim in the brown, murky Hama River (a pseudonym), play underwater games, wash dirty dishes, and play hide-and-seek along the dry, muddy banks of the river.

There was no other source of water for the village. The Hama River is the primary source of water for the Yak villagers, as well as for the nearby villages upstream and downstream. The residents, including teachers from Samill Primary School, also rely on the Hama River during the dry seasons. On rainy days, after the floods subsided, we would wade into the river, using locally made fishing nets to catch fish, prawns, and

mud crabs. Whatever we caught would provide the protein to accompany the yams and taros for a delicious dinner. This experience and my love for the local village sparked my interest in choosing Samill Primary School as my first research case study, as it was located near Yaks (a pseudonym) Village, which I visited twice during my primary school years between 1978 and 1983.

As I walked through the school grounds, I found myself pausing, as the weight of those memories rendered my legs heavy and hesitant. Reflecting on the fact that it had been 25 years since I was a primary school teacher, I recognised that my primary teaching journey had transformed me into a primary school teacher educator. However, my current role as a student researcher prompted a profound examination of my identity, sense of belonging, and acceptance within this environment.

Despite the evolution of my professional responsibilities, the enduring significance of my years as a primary school teacher remains vivid in my memories. At the age of 18, I embarked on a career in education, during which I experienced considerable personal and emotional growth. I continue to cherish my time in primary school classrooms, which served as both a sanctuary and a second home during the more challenging periods of my life, as I faced horrific and violent domestic abuse, leading to a marriage breakup.

It was gratifying to exchange resources and share insights regarding primary school teaching. Throughout this engagement, my former students proved to be exceptionally supportive of my research endeavours and my pursuit of a Doctorate in Philosophy. I established a robust connection with them that transcended the traditional teacher-student dynamic from their college days. Often, we shared laughter as we reminisced about their college experiences, particularly those that tested their self-worth and patience in my classroom.

Additionally, I appreciated the opportunity to interact with the other teachers during our free time, especially while enjoying a local delicacy called creamed sago. This was made with thick coconut cream, wrapped in sago leaves, and roasted over an open flame. Amid the enjoyment, a request arose for a teacher professional development session, which I led on the topic of assessment data as pedagogical practice before concluding my data collection at Samill. After the professional development session, the teachers expressed surprise at the depth of understanding they gained in just two hours.

Dedicating my time to conducting teacher professional development reflects the strong, positive relationship that has developed with them, as we have built trust and rapport while working together in that space. These memories will significantly benefit them, enhancing their existing professional knowledge about the importance of assessment data in teaching and learning.

School staffing and administrative structure

The school's administrative staffing aligns with the staffing expectations set forth by the National Department of Education for all institutions in Papua New Guinea (NDoE, 2020; NDoE, 2010a). The staffing comprised 25 teachers, 14 females and 11 males, who were responsible for teaching 25 classes. The class structure includes three streams: Grades 1, 2, 3, 4, 5, 7, and 8, along with four classes designated for Grade 6. There were four grade six classes because, in 2023, the total number of students in grades was higher, necessitating one more class. Teachers have been assigned to their respective teaching positions as established by the National Department of Education, as indicated in letters of expression of interest. The previous practice of submitting formal applications had become increasingly impractical due to the prohibitive costs associated with the government's annual printing of application documents. The accompanying diagram provides a visual representation of the staffing arrangement.

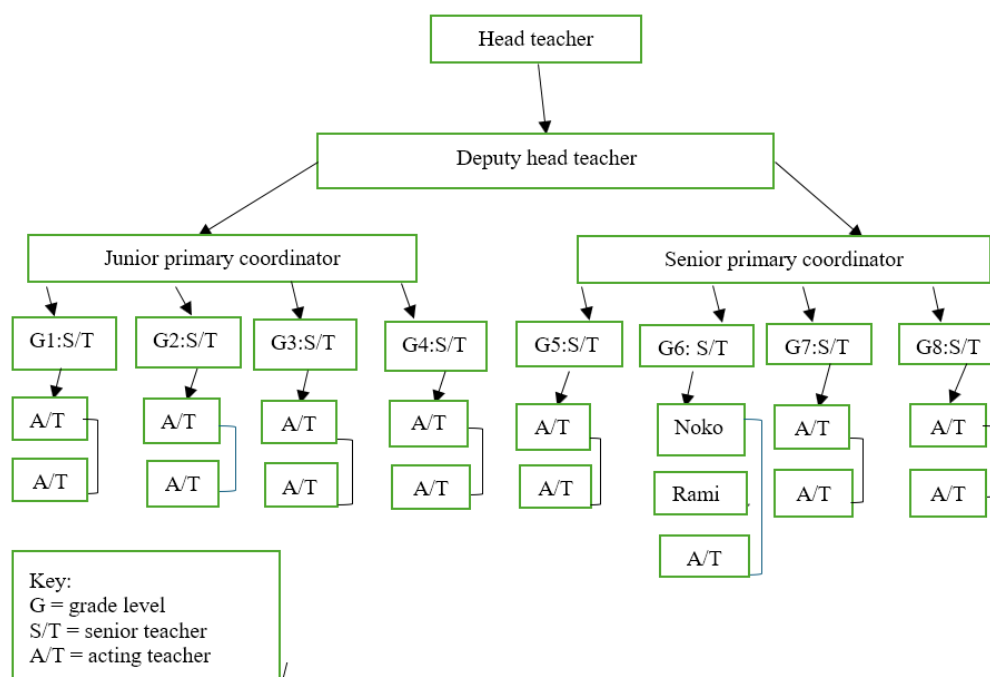


Figure 5.1 Samill Primary School: administrative structure, 2023

I was astonished to discover that approximately 50 per cent of the teachers at the school were former students of Divine Word University, which was my former employer. It was a privilege to observe them in their roles as teachers rather than merely as pre-service student teachers during my research visit. The classrooms comprised primarily old, permanent, and semi-permanent structures that require significant renovation. Some classrooms featured cement floors, while others were directly situated on the ground. A limited number of upper primary classrooms, ranging from six to eight, were elevated on medium posts above the ground.

Situating the participants in the research

The names Noko and Rami were selected as pseudonyms for the two participants who voluntarily engaged in this study. They were two of the 25 teachers teaching at Samill Primary School during the time of this study. They were not alone in this endeavour; utilising the research approach, we collaborated by sharing experiences and insights that significantly influenced the data gathered. Noko and Rami served as the participants of this study, both of whom were local teachers. Noko hailed from Mal, whereas Rami was from Samill, and both were teaching Grade six at the time of the research.

Noko was a gentle and modest female participant with nine years of teaching experience. She graduated at the end of 2014 with a Diploma in teaching and then graduated with a bachelor's degree in primary teaching in 2020. Although she was expected to complete her tenth year of teaching by 2021, she chose to enhance her qualifications in response to the new curriculum requirements, subsequently pursued her bachelor's degree in primary education. Noko's father served as the head teacher at her school. She was previously one of my students. Having taught at eight other primary schools in the local area, she began her position at the school in 2023. This was her first year at the school, where she served as the class teacher for 6A, a class of thirty three students.

Rami was an easy-going male participant with three years of teaching experience. Being relatively young and new to the teaching profession, he harboured significant expectations to diligently develop his skills and grow in confidence as a teacher. Rami expressed enthusiasm for participating in this research, which would aid in his professional growth in the field of research. He had been teaching at the school since 2021, following his graduation in 2020, and was the class teacher for 6B class, which comprised 33 students. He was particularly interested in teaching methodologies and was actively acquiring the skills necessary to achieve proficiency as he engaged in this study. Refer to Table 5.1 below for detailed biodata regarding the teachers involved.

Table 5.1 Samill Primary School: teachers' biodata

Name	Qualification	College attended	Date graduated	Years teaching	Class	No. of students
Noko	Degree in primary teaching	Divine Word University, Wewak Campus, East Sepik Province	2014	9	6a	33
Rami	Diploma in primary teaching	Reverend Maru Teachers College, Wewak, East Sepik Province	2020	3	6b	33
Total no. of students						66

It was noted that not all students attended classes during the research.

Student enrolment in 2023

The students attending the school hail from 13 surrounding communities: Samill 1 and 2, Nai 1 and 2, Mal, Hugo, Beth, Nego, Magu, Nara, Mako, Jonno, and Gini (pseudonyms). The geographical distribution of these communities varies; some are situated in mountainous regions, while others are located within and alongside the Sepik plain among the savannah grasslands, with the main Sepik Highway traversing through some villages. Some of the students undertake lengthy journeys to reach the school, departing as early as 4:00 a.m. for their classes. Several communities are adjacent to significant water bodies, including the expansive Hama River, which students must cross to attend school. During adverse weather conditions, including rainy days and flooding, these crossings pose significant safety risks.

Students are expected to attend lessons during these times; however, it appears that classes are often dismissed during the wet season due to decreased enrolment. Consequently, both the wet and dry seasons have a detrimental impact on the students' educational experience. The school has an enrolment of 760 students, comprising 404 males and 356 females at the time of this study. The student body reflected a diverse range of genders. Table 5.2 provides a comprehensive detailing of the school's statistics for 2023.

Table 5.2 Samill Primary School: enrolment statistics

Name of school	Samill Primary School
School type	Rural
School level	6
Total no. teachers	25
<i>Male teachers</i>	<i>11</i>
<i>Female teachers</i>	<i>14</i>
Total no. students	760
<i>Male students</i>	<i>404</i>
<i>Female students</i>	<i>356</i>
Grades taught	1–8
No. of classes	25
Class formations	Three-stream classes for Grades 1, 2, 3 4, 5, 7 & 8 Grade 6: four classes

Fostering cultural understanding and enhancing participatory research practices at Samill Primary School

As I aimed to examine assessment practices from an insider’s perspective, utilising participatory approaches at Samill Primary School. My connection to place and people was grounded in a shared understanding that Papua New Guinea has a long history of colonisation. It has been significantly influenced by its former colonial powers, particularly in areas such as education (Megarrity, 2005). This study has aimed to engage with a decolonial lens and in working with teachers, I have drawn on both emic and etic negotiations.

The participatory action research approach enabled me to work from an emic perspective. This is by utilising my cultural and ethnographic understanding of the primary school curriculum, implementing assessments, and collaborating with Noka and Rami. We addressed various challenges at the school to generate knowledge in this study.

I employed semi-structured interviews, classroom observations, and document analysis as discussed in Chapter four, with a particular focus on teachers’ lesson plans and students’ activity books. Through direct interactions with teachers and students, as

well as discussions regarding the lessons presented, I gained valuable insights into the prevailing practices within two Grade six classrooms. The emic approach inherent in participatory research action and its associated processes underscored the significant findings of this study.

Having outlined the cultural, historical, and institutional context of Samill, the following section presents the ethnographic findings from interviews and lesson observations, focusing specifically on how teachers understood and enacted assessment in this setting.

Ethnographical aspects of interviews at Samill Primary School

The ethnographic context of the school necessitated that some interviews be conducted outside the classrooms, with the majority taking place on an assembly platform constructed for gatherings and events. The time frame from 3:00 pm to 4:00 pm proved to be inconvenient, as teachers and some students remained on the premises, resulting in considerable noise, including shouting and laughter from students departing for home while engaging with friends or relatives. Additionally, students' safety was compromised due to tribal conflicts among neighbouring ethnic groups concerning land disputes, requiring them to be accompanied by peers for security while walking home.

Consequently, collaborative supervision emerged as a means of ensuring safety. Given the construction of classrooms at a lower elevation without adequate soundproofing, interviews were often held outdoors. This setting occasionally presented challenges, as the open environment proved uncomfortable due to individuals moving about and distractions being prevalent; yet the interviews remained the focal point of our engagement. Furthermore, the classrooms lacked sufficient lighting, which posed additional challenges.

The interviews conducted around the four key supporting questions outlined in Chapter 1 encompassed a series of specific inquiries designed to explore the relevant themes and objectives of the research.

Interviews with Noko

Noko exhibited confidence, thorough preparedness, enthusiasm, and active participation throughout the study, contrasting sharply with Rami's demeanour. Noko was initially interviewed, serving as an icebreaker for the process. All four interviews were conducted as scheduled without complications. Her first interview occurred in the

second week of Term 2. She was very vocal about her feelings regarding assessment practices based on her experiences.

Noko's second interview took place from 3:00 pm to 4:00 pm during week three. She was confident in her responses to question 2. Her third interview was conducted in the fourth week, and she did well in discussing the assessments she used to evaluate her students. The fourth was held in the fifth week of the term. Noko expressed a preference for the outdoor setting, finding it more comfortable and conducive to dialogue than the classroom environment. Engaging with Noko was particularly enlightening, as she articulated her thoughts freely, although she exhibited signs of concern when the questions highlighted the challenges she faced. Her responses for the four research questions were thoughtful and detailed, particularly regarding her preparation of assessments for students, with an emphasis on a progression from known to unknown concepts.

Observing her responses illuminated her struggles with certain questions, which prompted her to confront the limitations of the curriculum materials and the insufficiency of essential resources for enhancing the teaching and learning experience. She often paused and struggled to provide a direct answer. Aware that her father served as head teacher, I exercised caution in posing sensitive questions that could potentially jeopardise his professional standing and authority. In crafting some prompts for Noko, I ensured they were carefully worded to elicit specific responses. In her concluding interview during week 5, I expressed gratitude and brought closure to all four discussions. Noko emphasised that the preparation and execution of assessments are stipulated in educational policy; however, she acknowledged the challenges students face in comprehending and completing assigned tasks, as the utilisation of English as the medium of instruction complicates the learning process, a sentiment echoed by Rami in his interviews.

Interviews with Rami

Rami participated in all four scheduled interviews; however, the initial schedule was disrupted, necessitating the rescheduling of the sessions to complete all interviews. The first interview was conducted outdoors at an atypical hour, from 4:00 pm to 5:00 pm. Due to personal circumstances, Rami opted to sacrifice his after-hours time—recognised in Papua New Guinea as outside of the official working hours of 8:00 am to

4:00 pm—since he was unavailable for the scheduled first interview in week two. It is essential to note that this decision was entirely his own, and I did not encourage him to make such a choice; he believed he was taking a responsible step to initiate the interview process.

The subsequent three interviews were conducted in Rami's classroom. The second interview took place in week 4, from 3:00 pm to 4:00 pm. He did his best to respond to Research Question 2 and answered it. The third interview was conducted on Thursday, from 3:30 pm to 4:30 pm in week 5, during a period when classes were suspended due to inclement weather and significantly low enrolment, which allowed the interview to be conducted earlier than planned. Following the interview, Rami raised concerns regarding his salary issues, expressing disappointment with the prevailing state of Papua New Guinea's education system, which posed significant challenges for teachers. It had a nationwide disruption of payroll, a recurring issue affecting teachers throughout the country. I listened attentively to his concerns and encouraged him to address his situation promptly, utilising the appropriate support network within the department in Port Moresby.

Before concluding our discussions, Rami proposed that the fourth interview be conducted the following afternoon, which was Friday. Although I was hesitant and believed it prudent to allow him time to recuperate from his current difficulties, I ultimately agreed, taking into consideration his availability, the necessity of respecting participant welfare, and the importance of ensuring their voices are heard through mutual understanding. The fourth interview was conducted on Friday from 3:00 pm to 4:00 pm, still in week 5, and Rami chose to do it. During this session, Rami was not fully engaged because he had been suspended from payroll the previous day, which understandably affected his emotional state and responses to the interview questions. I made concerted efforts to emphasise key questions to elicit insightful responses; however, there were moments when Rami looked away or would direct his gaze toward me while answering. While I experienced discomfort at times, I recognised that this behaviour may be attributable to Papua New Guinea's cultural norms, in which individuals do not make direct eye contact during conversations, particularly in interactions involving male and female participants.

Although the interview proceeded effectively, Rami was not in an optimal frame of mind to provide comprehensive responses, expressing frustration about the lack of curriculum materials and the challenges posed by students' limited proficiency in English. This language barrier significantly hinders their ability to engage authentically with assessments. It is crucial to acknowledge that the quality of responses to interview questions is often contingent on the interviewee's emotional state; an interviewer cannot compel individuals to articulate their thoughts effectively when their mental state is unsettled. I thanked him and wrapped up the four interviews.

Ethnographical aspects of lesson observations at Samill Primary School

The lesson observations were conducted utilising a checklist of items (see Appendix C) designed to assess the quality of the instructional session delivered by Noko and Rami.

Noko's lesson observations in context

Like the interviews, Noko's lesson observations went smoothly as scheduled without any issues. She stayed focused and followed her consent. The first lesson was on *Possessive pronouns*. It was taught in the second week of Term two. Twenty-three students attended. It was a valuable lesson, as she engaged with the students, but only a few responded to her questions, prompting her to take complete charge of the lesson. Her explanations were unclear, so most students did not understand how to complete the assessment effectively as a learning tool.

She conducted her second lesson observation in the third week of Term two, teaching a lesson on *Poem personalisation* that explored the structure of a poem. The lesson went well, except that the content taught to the students required more proper clarification on how to identify personification in poetry, which negatively impacted students' interactions. Not many students understood the assignment and did not complete it effectively by writing poems on personalisation. On the other hand, students lacked a higher level of comprehension.

Her third lesson was in Week 4, where she taught a spelling lesson for students to pronounce, name, and spell words with the 'oo' sound. It was a good lesson and was teacher-centred. The teacher initiated all oral discussions, and the students tried their very best to think of, say, and spell words with the 'oo' sound. Due to the limitations of the English vocabulary, not all students participated, except for the brighter students.

Noko's fourth lesson was in Week 5. It was a Written Expression lesson on *Personal Recounts*, and she introduced it with a sample of the story titled, *My school days*. She had the students read to understand the story and then drill them on how to write their own stories. This last lesson showed improvements, and students engaged in the lesson, successfully completing their class activity on writing their stories. Noko was enthusiastic and motivated the students to write stories.

In all four lessons, all students behaved well and were generally quiet; there were class activities, and all these activities were completed for marks as formative assessments. However, she did not fully understand or implement assessment *as learning*. All lessons were conducted in the classroom, and students were asked to work in pairs or individually to complete the assigned activities. Students were seated two to a desk and were separated by gender, as it was a cultural norm that boys should not sit in close contact with girls, and this practice was carried into the classroom. There was evidence of gender bias in the school, as the prevailing belief system does not accept that boys and girls are equal partners, and this remains a norm in rural Papua New Guinea.

Rami's lesson observations in context

Rami also taught four lessons, all of which were conducted in his classroom. His first lesson was scheduled for Week 3 instead of Week 2 because he had domestic issues and was not prepared for teaching that day. The lesson covered *Auxiliary verbs*, and 18 students attended. That lesson was engaging and student-centred, with all students responding very well to his questions. It differed from Noko's classes. I observed that his class had a better level of comprehension than Noko's. I was curious and wanted to learn more, as it was an interesting lesson.

Later, during the lesson reflection, it was found that the lesson was a revision of one that was already been taught in Term 1. There was no proper lesson plan, and the content was taken from a Google search. I advised him to teach lessons based on the nationally prescribed curriculum for Papua New Guinea. Additional information could be obtained through Google. He expressed remorse and apologised for teaching a revision lesson when he should have been teaching new content daily, if proper lesson plans had been in place. It was evident that his domestic problems had significantly affected him, and he was distracted.

The second lesson was a grammar lesson on *Common nouns*. He taught well, as the lesson was interactive during the introduction; however, he should have allowed at least a few students out of the 16 to give examples of proper nouns instead of dominating the explanations. There was a lack of teacher supervision during the class activity time; however, most students did well. The content was more suitable for lower grades rather than Grade 6. It was too easy for the students at this higher grade level.

The third lesson was a written expression lesson on *Procedural writing*. Rami provided an example of local cocoa farming as procedural writing process. He then spent too much time explaining procedural writing, and time caught up with him. Rami rushed to complete the lesson and asked the students to write about local farming practices they were familiar with. The 16 students were tasked with composing a descriptive procedural writing piece about local farms, such as peanut, cocoa, and rice farming. It was challenging because students struggled to construct correct sentences and complete the task; however, they were given one week to complete it, as it was an assessment *for* learning. After a week, the task was collected for assessment.

Lesson four was a handwriting lesson focusing on *Cursive writing*, where the 16 students practised and learned to write paragraphs in cursive style. It was an unsatisfactory lesson because not all students performed well, and the teacher did not deliver the lesson effectively, resulting in students not fully understanding the content. The writing was untidy, but they were given a mark out of five for copying a paragraph that modelled cursive writing.

During the observed lessons, I sat at the back of the classrooms, observing without interruption. It was clear that males outnumbered females in all lessons, reflecting a cultural tendency in which males are often perceived as possessing knowledge that females lack in the classroom.

However, I experienced a conflict between my own understanding of effective teaching and the methods used, and I was tempted to correct the teachers for their apparent lack of motivation and the use of teaching aids. This issue made the lessons less interactive and less creative than desired. Still, I chose not to intervene, worried that doing so might disrupt our relationship and the trust we had built. As a result, I let the lessons continue as planned, limiting my input to reflections afterwards, where I discussed their strengths and weaknesses. I felt some frustration upon realising that

some of the lesson content had not been communicated accurately to the students. This led me to consider the teaching methods used by other teachers responsible for English teaching in primary schools.

Despite my sense of shared understanding, which sometimes made them nervous during lessons, I admired Noko and Rami's confidence and dedication in planning and teaching, as they showed a commitment to improving collaboration in this study. I recognised that, on average, both of them lacked sufficient English content knowledge to deliver practical English lessons.

Reflections on academic authority and voice in participatory action research

In this study, the unique perspectives that Noko and Rami brought were respected and acknowledged, as they played a significant role in contributing to the new knowledge presented. They have practised and conducted assessments in various schools over time, developing an excellent understanding of the specifics and purposes of evaluation, which has undoubtedly enabled them to respond well in interviews, lesson planning, and observations.

The creation of knowledge exemplifies shared ownership, as illustrated by the participatory action research approach. This study challenges traditional power dynamics by emphasising the value of perspectives and experiences from all participants, including both teachers and students. The knowledge generated was not solely the responsibility of the researcher, as was often envisioned in a Western paradigm where the researcher dominated decision-making and diminished the voices of participants. As an insider and someone familiar with assessments, albeit with limited understanding, I had been teaching this unit to pre-service teachers. I did not take complete control of the discussions, as I felt it was unethical to dominate. Therefore, the conversation flowed authentically, driven by the participants during the interviews.

Both Noko and Rami expressed their concerns and showed remorse because the school had limited curriculum materials and resources to supplement their teaching, which limited their productivity. They had been severely affected due to not being visited by the school inspectors, and the lack of teacher professional development was a concern raised by Noko and Rami.

In the context of Papua New Guinea, collaboration and teamwork were deeply ingrained in cultural practices, with storytelling serving as a fundamental means of

community engagement. This approach underscored the importance of co-creating activities that reflected the interests and needs of all individuals involved. Teachers' and students' voices were heard in the teaching and learning process, where I observed lessons and later reflected on them to encourage improvements and better approaches to teaching that enhance student learning.

In the process of establishing academic authority and voices in participatory action research, Noko and Rami were empowered and became agents of change in the study. They were co-researchers; they willingly shared their experiences of conducting assessments and how they learnt, and if not, they expressed their concerns and were open to change to help their students learn. These realities enhance the research process, leading to more meaningful and relevant outcomes, which this study aimed to achieve.

The research emphasised the concepts of inclusivity and equity by highlighting the importance of both teachers' and students' perspectives. Although students did not verbally participate in the interviews, their silent contributions were recognised through their activity books, ensuring their voices were also reflected in the findings. I collected their activity sheets after every observed lesson and reviewed five books from each lesson taught, totalling twenty books for each class. This was to determine how the assessments were conducted and the types of marks they received. This practice highlighted the importance of not overlooking the vulnerable but of ensuring they were noticed in a small way.

Ethnographical aspects of co-production at Samill Primary School

In applying the co-production model at Samill Primary School, I collaborated with Noko, a female participant, and Rami, a male participant. All discussions and contributions to the study concerning teacher perceptions of assessment and intersubjectivity were systematically coordinated through interviews, lesson observations, and analyses of teachers' lesson plans and students' activity books. My role as an insider involved supporting teachers in implementing the standards-based curriculum in Papua New Guinea within schools, while facilitating assessments that align with the curriculum's expectations. This co-production initiative integrated the insights of both teachers and students regarding pedagogy, learning, and assessment practices.

Teachers not only participated in lesson observations but also engaged in the actual development of lessons that incorporated the assessment components of the curriculum. In this context, teachers prioritised conducting assessments to ensure the achievement of lesson objectives, utilising both formative and summative evaluation methods. Through a review of the students' activity books, I sought to understand how feedback provided by teachers influenced student learning and observed the extent of student engagement reflected in their assessment results. It was disheartening to find that students received inadequate feedback, often reduced to vague remarks such as "very good", "good", or a simple "x" for incorrect answers, which did not meet my expectations regarding constructive feedback.

From a Freirean perspective, these limited feedback practices reflect a residual "banking" model of assessment, where teachers transmit right or wrong answers rather than engage students in dialogue about their thinking. At the same time, the later introduction of bilingual feedback in Tok Pisin and English can be read through culturally relevant pedagogy as an initial move toward recognising students' linguistic resources within assessment.

However, through ongoing discussions and reflections, the teachers demonstrated improvement. Both Noko and Rami implemented formative assessments *for* and *as* learning, exposing their understanding of assessment gained from Teachers College and supplemented by their years of experience.

My collaborative approach improved lesson plans through pre-lesson discussions, ensuring that lesson activities, assessments, and objectives were aligned. In the first two lessons delivered by the teachers, there was precise alignment between the lesson objectives and the corresponding activities. Reflective practice, conducted after each lesson presented in this study, allowed the teachers to recognise their limitations and make progress in subsequent lessons.

The teachers participated in discussions regarding their identified areas for improvement, as outlined in the feedback provided, and made the necessary adjustments, which were subsequently monitored in later lessons. However, it was observed that they occasionally struggled to acknowledge their deficiencies, clinging to the belief that their established methods were effective due to years of usage without revision. For instance, the feedback they offered to students did not promote the

intended level of interaction. Although they expressed a desire for enhanced student engagement, this goal remains unfulfilled, resulting in lessons that predominantly remain teacher-centred. These patterns speak directly to my research questions about teachers' perceptions of assessment and its impact on student learning: while the teachers valued assessment and claimed to use formative strategies, their classroom practices at Samill often remained dominated by teacher-centred questioning, minimal feedback, and limited use of assessment information to adapt teaching.

The teachers' perspectives were acknowledged and explored further to enhance understanding. Teacher-student interactions were generally found to be inadequate in nearly all lessons presented; however, through ongoing engagement with the teachers, they identified a significant strategy that incorporated bilingualism (Tok Pisin and English) within the context of Papua New Guinea. The collaborative approach involved active listening and mutual respect, fostering trust and collaboration between Noko and Rami, which enabled them to complete interviews, lesson observations, and reflections despite socio-cultural challenges.

Furthermore, improvement should not be misconstrued as the attainment of perfection. Misunderstandings regarding the development of appropriate and meaningful assessments that aligned with lesson objectives persisted. This area presented an opportunity for support from teachers, colleges, and ongoing teacher profession development in the future, particularly in areas such as lesson planning and evaluation.

During one of our reflective discussions, Noko expressed concerns that her work environment did not inspire her to perform at her best. As a resident of Samill and a young woman, she faced ongoing disputes related to her father's role as an elder within rival tribes, which continuously disrupted her personal and professional life.

Consequently, she often found it challenging to maintain focus on her teaching responsibilities due to these pressures. Rami articulated similar sentiments, revealing that, as a male, he felt compelled to advocate for his tribe, even to the extent of engaging in conflict if required. The persistent rivalry among ethnic clans affected the teachers in differing ways, which also diminished their active participation in co-production, as evidenced by Rami's struggles to compartmentalise his personal issues from his professional duties. This situation highlighted the significant impact of the

teachers' psychological states and mental well-being on their effectiveness. A more supportive and fulfilling life could enhance their energy and enthusiasm in developing and delivering lessons, ultimately rendering their teaching more engaging and meaningful for students.

Summary

The research conducted at Samill Primary School was markedly influenced by the institution's and the community's ethnographic and cultural background. It was characterised as an oral society with prevalent exchanges of traditional beliefs and taboos that sometimes hinder effective communication between females participating in interactions with males across various contexts.

During my fieldwork, I gained insight into the nature of challenges encountered at various times, recognising that they are transient and fluctuate according to environmental factors. The incident involving a physical altercation tested my resilience and instilled a profound sense of fear; additionally, the occurrence of domestic violence within the school setting, witnessed by the students, was exceedingly difficult to endure. I was not adequately prepared for such confrontations. The consideration of conducting research within a culturally diverse context, such as Papua New Guinea, presents unique challenges. Researchers must anticipate the unexpected and cultivate resilience to address the daily adversities that arise in such environments.

As my departure approached, I felt a poignant sadness in leaving both Noko, Rami and the school environment. I recognised the profound impact this school had on my studies and my attainment of the Doctorate. Overwhelmed by emotions, I took a moment to absorb the essence of the teachers, students, and community that had been instrumental during my eight weeks at Samill. My heart ached as I gazed at the teachers' residences, classrooms, water tanks, and playing fields, all seeming to yearn for transformative attention reminiscent of a magician's touch, particularly under the magnificent glow of the setting sun over Samill Primary School on that tearful afternoon. The next day, I set off at dawn, leaving Samill and the school behind for my next journey to Kofaik Primary School, the second case study location.

In Chapter 6, I present the ethnographic context of Case Study 2, Kofaik Primary School.

Chapter 6

Ethnographically contextualising case study two: Kofaik Primary School

Introduction

This chapter offers an overview of Kofaik Primary School, the second case study in this research. Initially, the overview is organised to align with the researcher's arrival and with the processes of gatekeeping and participant recruitment. It also outlines the school's staffing and administrative structure, including student enrolment and the main participants involved in the study. Additionally, the chapter discusses the emic and etic negotiations at Kofaik Primary School, addressing culturally responsive and sensitive issues and their implications for the research. It presents the ethnographic aspects of the interviews and lesson observations. The chapter also integrates ethnographic and cultural aspects of the participatory action research approach used at the schools, highlighting the importance of the co-production model within the study. It brings these ideas together by incorporating academic voice within a participatory action research approach and by applying situational ethics in culturally inclusive and sensitive research for both schools, Samill and Kofaik.

Walking into the ethnographic and cultural aspects of Kofaik Primary School

Geographically, the East Sepik Province of Papua New Guinea is primarily defined by the Sepik River and its extensive floodplains, as well as by coastal ranges and offshore islands. Wewak, the town in East Sepik Province, is beautiful, featuring breathtaking white sandy beaches, coconut palms swaying along the shimmering coastlines, and magnificent islands in the heart of the Bismarck Sea. The town itself occupies a narrow strip of flat land between the ocean and coastal ranges, with a small peninsula housing the old town centre, Boram Hospital, and the airport.

At the heart of this beauty, approximately twenty minutes from the town centre, Kofaik Primary School is surrounded by numerous houses and buildings, with nearby settlements almost engulfing it and leaving the two Indigenous villages, Raba and Maus (false names), largely unrecognised. It is an urban school, established in 1940, and is one of the colonial schools in Wewak that has stood the test of time.

Wewak had a population of 12,580 in 2011 (National Statistics Office, 2011), and the population is anticipated to have increased since then. Numbasa and Koczberski

(2012) conducted research on life in Wewak, the capital of East Sepik Province, examining perspectives on migration and informal settlements. Their findings resonated with the fact that many people were employed in government departments and the private sector; however, only a few lived in permanent homes, as there was a shortage of housing to accommodate all workers. Many residents lived in informal urban settlements and utilised whatever resources were available for survival. Most tradespeople and trade-store workers established homes illegally on government land, but they later claimed to have improved the land to make it more suitable for living, allowing them to bypass government policies, land-leasing regulations, and rental payments.

Urban life in Wewak was characterised by a mixture of both educated and uneducated, affluent and non-affluent families, making life challenging for everyone (Numbasa & Koczberski, 2012). Educated and wealthy people desired a better, peaceful life, yet disadvantaged individuals, especially youths from settlements, often disrupted and disturbed the peace that everyone sought. In recent times, Wewak has faced numerous challenges, including the rise in lawlessness, which at times involved some school students, thereby disadvantaging them for many years in terms of proper education (National Newspaper, 2024, July 12). Poverty was also rising as many unemployed people migrated from rural to urban areas. This was identified in a report by the Asia-Pacific Economic Cooperation (APEC, 2024) on poverty in Papua New Guinea. People moving away from rural villages in search of better services often ended up in settlements, creating lawlessness and making life so complicated that it became nearly impossible to survive, as identified by Numbassa and Koczberski (2012). A more balanced distribution of power and wealth was necessary for the people to live and enjoy life in some areas of Wewak. There was a significant gap between the advantaged and disadvantaged in Wewak; some of these intergenerational factors, such as poverty, contributed to inequality (Errington & Gewertz, 1997).

The establishment of Kofaik Primary School

Notably, Kofaik Primary School, situated in a valley framed by low-lying distant mountains, was accessible by road, with public transportation, particularly bus services, passing through the area daily as early as 6:00 am. Local businessmen and women privately owned most buses that serviced teachers and students travelling to the school.

There were no government-owned public transport services in Wewak or throughout the country. Surrounding the school were two local indigenous villages, Raba and Maus, which had undergone significant changes over the years due to urbanisation, impacting their culture and customary practices. Like others, due to rural-urban migration, people began occupying land to live and work in Wewak town, resulting in the emergence of squatter settlements. As people migrated, they brought their cultural knowledge and languages, influencing changes in their new environment, which enabled them to integrate and survive.

The school has faced challenges from thieves and some locals breaking in to steal property each school year resulting in the school losing resource and money to keep the school going; nonetheless, it has persisted and continues to educate children. It was reported in the National Newspaper (2023, June 23) that after 78 years of operating as a government-run institution, Kofaik Primary School received funding of k455,000, which was represented in Papua New Guinea's national currency kina and toea, from the Wewak Development Authority, Wewak Music Center Limited, and a partial contribution from the school board of management. The money was to build a four-in-one double classroom for its Grade 8 students. This marked a new facelift for the school after securing the funding, and the classroom was opened for use two weeks before my data collection. It stood firmly on the ground, showcasing the unwavering strength of welcoming anyone who entered the school. It was one of the modern buildings in Wewak in which the school took pride.

My connection to Kofaik Primary School and other schools in Wewak, East Sepik Province

Kofaik Primary School was one of five large urban schools in Wewak, East Sepik Province. To the far north is Java primary school, level 6; to the south is Homin primary school, level 9; to the northwest is Sengi primary school, level 8; and to the east is Ragwa primary school, level 6. The schools' Levels determine how large the schools are relative to student enrollment each year. Level 9 has the highest enrolment, and so Homin is the biggest school in Wewak. All five schools boast large enrolments each year, with more than 1,000 students and 20 to 30 teaching staff members assigned to teach Grades 1 to 8. All these schools are transitioning to the new standards-based education system. However, they still retain the recently abolished outcomes-based

education structure for Grades 3 to 8, which conflicts with the standards-based structure for Grades 1 to 6 in primary school. Among these urban schools, Homin and Ragwa are Catholic schools, while Kofaik, Java, and Sengi are government institutions. The schools have three to four streams of classes, meaning there are approximately three to four Grade 1 classes, which continue up to Grades 6 or 8.

The schools play a crucial role in educating the children of East Sepik Province and strive amid unique challenges, such as inadequate curriculum materials, a common issue of teacher housing shortages, break-ins and theft of school property, and the fact that most of their students come from nearby settlements. Each year, the schools compete with one another in sporting events and cultural shows, ultimately evaluating their academic performance through the end-of-year Grade 8 examinations. In this competitive environment, end-of-year examinations and regular class tests become the main indicators of success, influencing teachers' emphasis on summative assessment and often crowding out more formative, student-centred approaches.

The performances of the students in various activities reflect what the teachers impart to shape and mould them into better, brighter, and outstanding students at each school. The teachers' commitment is evident through both their words and actions. Supported by their loving families, they cultivate strong character with a deep sense of purpose and a keen desire to teach, shape, and mould the future generations of Wewak, East Sepik Province. All teachers deserve recognition for the time and effort they invest in achieving exceptional results in those activities, making their schools shine in their performances.

During my ten years of living and working at the teachers' college, I was assigned to Kofaik Primary School for the first time in 2021 as the team leader for the urban school's zone. My interest in the school grew strong as I supervised pre-service student teachers for their field teaching practice in 2021, a year before I commenced my PhD studies. I spent four weeks observing pre-service student teachers' lessons and doing pre- and post-conferencing with them. During that time, I established good relationships with the field teachers and the head teacher at the school.

So, when I thought about which schools to collect data for my study, Kofaik Primary School did not go away; it was there in my memories, and I chose it to be the

urban school overlooking Homin Primary School, the school that held all my childhood experiences, excitements, joys, worries, and problems loaded in heavy bilums.

School staffing and administrative structure 2023

Kofaik Primary School was level 7 and one of the five most prominent urban government schools in the province, with a student population of 1,000, comprising 501 males and 499 females, representing almost equal enrolment between the two genders. Samill and Kofaik Primary Schools share similarities in their colonial influences on their existence and education. Kofaik Primary School was a four-stream school with four classes, each Grade from one to eight. Thirty-two medium-sized classrooms with cracked cement floors were situated on the ground, inviting ants and insects to make their homes on the cold, uneven ground. Nearly all the classrooms were old, desperately in need of renovation.

However, despite this, the school had upgraded its image by building a new four-in-one classroom for Grades 7 and 8 that was opened and used in Term 3 as the new term began. The deputy head teacher was excited and overjoyed with her achievement and shared her sentiments with me. The new building stood tall on a concrete floor but was built upward, which made it the school's icon. As one walks into the school, the building spreads its hands to greet and overshadow you as it stands just 30 metres from the entrance.

The school's administrative structure consisted of head teachers assigning responsibilities to senior teachers for each grade level, with three subordinates. There were 32 teachers: 24 females and eight males. That was an unfair representation of both genders in teaching, but it is common in most prominent schools in Papua New Guinea. Most of the teachers resided outside the school premises, as there were only limited accommodations available; that housed only a few senior teachers, including the deputy head teacher. Travelling to work and returning home was challenging for all teachers living outside the school premises. The public transport system was unreliable, causing inconvenience to teachers' punctuality, as not all teachers owned cars to travel to and from work. They relied heavily on public motor vehicles. At times, public motor vehicle owners went on strike in demand of fare increases due to rising fuel prices and deteriorating road conditions, and would not operate, as was common in Papua New Guinea. Some teachers would also stay home, resulting in a loss of lesson time for

students, including missing out on important content. Taking public vehicles to work every day was stressful and sickening for some teachers.

These disruptions to teaching time and continuity also affect assessment cycles, as teachers rush to ‘cover’ examinable content and rely on quick written tests rather than slower, dialogic forms of formative assessment.

Table 6.1 displays the school’s enrolment, and the figure 6.1 illustrates the school’s administrative structure as of 2023:

Table 6.1 Kofaik Primary School: statistics and enrolments

Name of school	Kofaik Primary School
School type	Urban
School level	7
Total no. teachers	32
<i>Male teachers</i>	<i>8</i>
<i>Female teachers</i>	<i>24</i>
Total no. students	1,000
<i>Male students</i>	<i>501</i>
<i>Female students</i>	<i>499</i>
Grades taught	1–8
No. of classes	32
Class formations	Four-stream classes, Grades 1 to 8

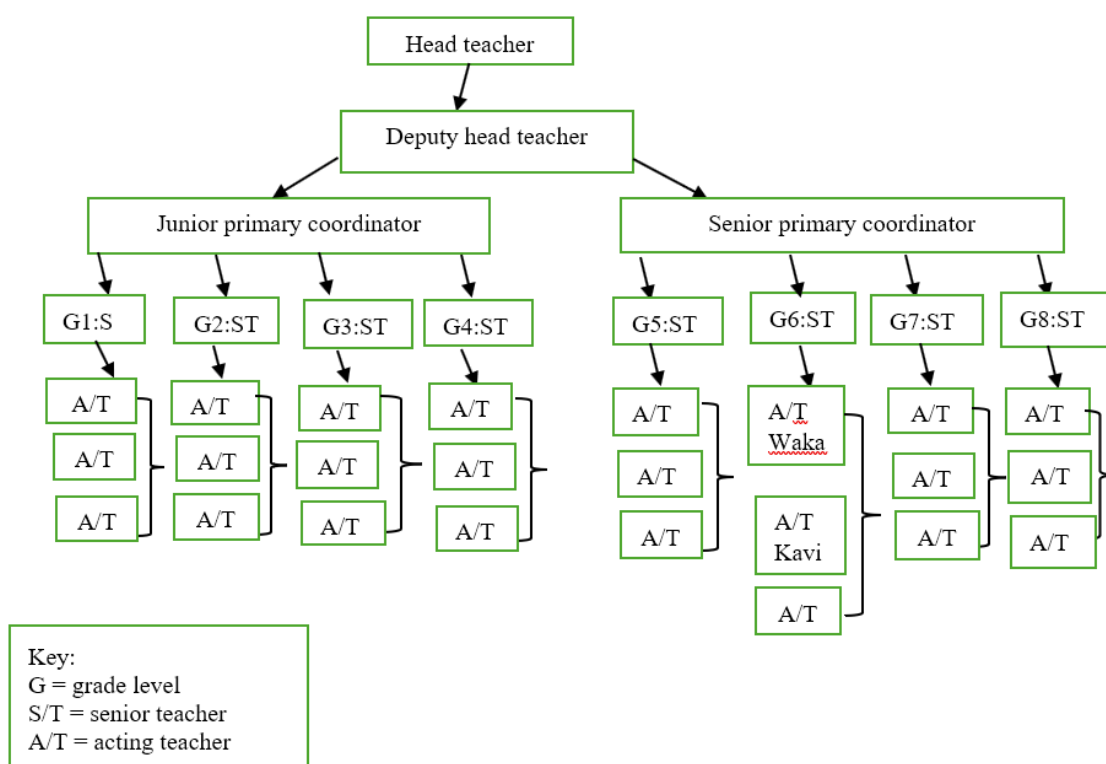


Figure 6.1 Kofaik Primary School: administrative structure, 2023

Situating the participants in the study

Waka and Kavi (pseudonyms) were the two participants from Kofaik Primary School, specifically the Grade Six class teachers of 6A and 6B. Waka was a local staff member from Yoro, one of the districts of East Sepik Province. Kavi was from the Western Province in Papua New Guinea, and his spouse, who also taught at the school, was a local from the Sengi district of East Sepik Province. Kavi, after marriage, followed his wife to live and work in the East Sepik province.

Waka, the female participant, graduated in 2014 with a Diploma in primary teaching. She was the class teacher of 6A class of 34 students and was in her ninth year of teaching. Previously, Waka, in her first three years of teaching at Kofaik Primary School, was assigned to teach lower primary Grades 3, 4, and 5. The year 2023 marked her second year of teaching Grade 6 at the senior primary level. She loved teaching her students by approaching them in different ways, sometimes with a motherly nature, but sometimes she was stern with them, especially when they struggled to understand and

speak English as required. She resided outside the school vicinity and travelled to work every day.

Kavi, the male participant, graduated in 2016 with a Diploma in primary teaching and was in his sixth year of duties at the time the study was conducted. He was the class patron of the 6B class, which had 32 students. He was enthusiastic and active in teaching, making lessons enjoyable for his students. Kavi also taught junior primary Grades 3, 4, and 5 in previous years; this year (2023) was his first-year teaching Grade six at the senior primary level. Like Waka, he commuted to work every day as he resided outside the school. Table 6.2 displays their biodata:

Table 6.2 Kofaik Primary School: teachers' biodata

Name	Qualification	College attended	Date graduated	No. of years teaching	Class	No. of students
Waka	Diploma in primary teaching	Balop Teachers College, Lae, Morobe Province	2014	9	6a	34
Kavi	Diploma in primary teaching	Pacific Adventist University, Sonoma campus, Rabaul, East New Britain Province	2016	6	6b	32
Total no. students						66

Student enrolments in 2023

A total of 1,000 students attended Kofaik Primary School; some students came from the two local villages of Raba and Maus, as well as from the surrounding settlements and affluent suburbs in Wewak. The school was a multicultural school where students hailed from different provinces of Papua New Guinea due to intermarriages and parental employment opportunities. The rich cultural practices that students brought with them placed the school at the forefront. This was especially evident during the school cultural day celebrations and other culturally relevant events held in primary schools in Wewak. While enjoying their indigenous cultures, the students and teachers continually faced the challenge of bridging the gap between ancient Papua New Guinea cultures and the new, rapidly changing contemporary cultures.

Consequently, many students came from educated backgrounds and relatively wealthy families, while others came from less educated and more disadvantaged ones. Students from underprivileged backgrounds primarily resided in settlements and missed out on essential services such as proper water, sanitation, and electricity, which sometimes made life a struggle. This situation limited how often they could attend classes and engage in learning. School fees posed a significant challenge, as parents struggled to meet the financial demands for their children's education.

Students from the settlements strove to cope with daily challenges, including a lack of nutritious food, insufficient lunch money, and inadequate clothing. Parents sometimes depended on their children for help, such as taking care of younger siblings, selling goods for cash to buy meals, and doing household chores. This contributed to students missing classes and essential content in all subjects. There was an intergenerational trend in Wewak, and likely across Papua New Guinea, in which people remained poor and less educated. However, not everyone stumbled and dropped out of the school system. A few students persevered despite these disadvantages and managed to attend classes and enjoy time with their friends. They excelled and performed at their best: I shared similar circumstances from my childhood, now as a mature adult raised in a settlement.

The students' parental backgrounds significantly influenced their behaviour, including class attendance and enthusiasm for engaging in class activities. Most students from educated parents recognised the importance of education. They pursued that journey, as their parents believed that being educated would bring change and a better life in the future. While some students made expected progress using parental resources, others did not. Some students from advantaged backgrounds took things for granted as they enjoyed their parents' privileges of having good food and money, leading to a smoother life. Consequently, they may have lost focus and concentration, which could have resulted in dropping out of the school system. There was a distinct difference between the parental backgrounds of students attending schools in Wewak. Sometimes, this disparity was unfair, but that was how life unfolded for everyone: survival of the fittest.

Arrival, access gatekeeper, and participants

On the morning of Monday, 10 July, I arrived at Kofaik Primary School at 8:30 am on a sunny day with a temperature of 30 degrees Celsius, typical of a tropical climate. As I entered the quiet and empty schoolyard, I noticed an Air Niugini (Papua New Guinea national airline) aircraft conducting its routine flight, passing overhead en route to Boram Airport, Wewak. I was impressed by the positive changes on the premises, especially the newly constructed four-story building that stood before me, illuminated by the rising sun over Kofaik Primary School. I walked to the new head teacher's office located in the new building.

Upon my arrival, I had the unexpected opportunity to meet the deputy head teacher, who was managing the school's administration during the head teacher's medical leave. I inquired about the head teacher and was told he had been on sick leave in Port Moresby, Papua New Guinea's capital city, for almost six months. I felt low as I knew him from my 2021 field teaching practice. After exchanging pleasantries, we recognised each other from previous encounters, but not in personal spaces. She directly informed me that she would not be available today, as she intended to take her sick daughter to the hospital. The deputy head teacher further expressed that there would be no formal classes today, as teachers would be preparing their lesson notes and programs for the term. With those notes, I was advised to come back the next day (Tuesday). I scratched my head and looked away, hiding my disappointment.

Surprisingly, that was the arrangement already planned for Kofaik Primary School, the first day of work after the Term two holidays at an urban school. I wondered when the teachers were made aware of the plan, as I had clocked in at 8:30 am and had not yet seen all the teachers at the school. Most of them were struggling and competing for bus seats to get to work. It was unfortunate, as transportation to and from work was a problem, as most teachers reside outside the school premises and commute to work every school day. I looked around and saw that nearly half of the school students were present, looking forward to starting Term 3 in their classrooms, rather than being sent home again, as they had just arrived.

In reality, in Papua New Guinea, students' voices are often undermined and their presence is usually ignored when decisions are being made. I was frustrated as I had looked forward to starting the day, and despite being prepared, I was told to go home

and return the next day. It questioned my work attitude, specifically whether I was prompt and completed tasks on schedule. That is likely the truth in Papua New Guinea, where power dynamics hinder progress and leaders can be influential and instrumental in undermining other voices in decision-making.

Despite my disappointment, I took the opportunity to explore and chat with a few teachers who were present at the time. A few of them were former students of Divine Word University's teacher training college. They updated me on their progress in teaching, the grades they were teaching, and the triumphs and joys they encountered, along with all the challenges they experienced over the years.

Accessing the participants

The next day, I returned to the school and the deputy head teacher's office. I waited there as she planned for a briefing at 10:00 am. When the time came, all the teachers gathered in the staff room. It was lively as teachers talked and discussed their holidays, and the staff warmly welcomed everyone during the 10:00 am tea break. I entered a room full of laughter and familiar faces looking at me with surprise and curiosity, as some of them did not expect to see the researcher or me doing my PhD. A few teachers thought I had left the province to teach elsewhere. Nearly all the teachers were present; we exchanged greetings, and I discussed the objectives of my study with them. They expressed their willingness to support my efforts.

The environment was conducive to collaboration, and I was advised to establish connections with the participants through the Grade 6 sectional head, who fortuitously was one of my former students. I elaborated on the study's purpose and provided him with information sheets to disseminate among his teachers for their review. I was informed again to return the next day, Wednesday, to further talk with my participants. I left as I felt these were administrative issues, and I was just a researcher.

The next day, still in the first week, I returned to the school, hoping to access the participants. I met with the sectional head at 10:00 am in the standard staff room, where he presented me with the names of the selected participants that he had chosen. Although I contemplated his leadership choices, I decided not to question them directly. It was during this meeting that I met Waka, the female participant and Kavi, the male participant and planned a meeting with them. At 3:00 pm, we held a further discussion about the research, during which we addressed any remaining inquiries. Following our

discussions on the participatory action research approach, we exchanged phone numbers for communication purposes. I collected the consent forms from the teachers; both individuals consented to participate in the study in the afternoon.

I developed the lesson and interview schedules for the teachers (Appendix Q), which I gave to them during their second week of instruction, and further discussed their availability for interviews and lesson observations. Data collection commenced in the third week of Term 3 and ended in the ninth week of the term.

Emic and etic negotiation that fosters deeper cultural understanding and enhances the relevance of participatory action research practices in specific local contexts

The implementation of this study at Kofaik Primary School involved two participants, Waka and Kavi, who were both teachers at the urban school during the PhD study's execution. Engaging with Waka and Kavi as participants required negotiations with the gatekeeper, who was their deputy head teacher, as well as collaboration with their Grade 6 teacher in charge. Waka and Kavi were identified as co-researchers in this study. The school's organisational structure, along with established protocols, required me to exercise patience in gaining access to the participants, which I successfully achieved during the second week of the term. My approach involved visiting the school daily during the first week of Term 3, which resumed in September 2023. I was careful, as in the context of Papua New Guinea, the dynamics of power significantly impacted access to resources; therefore, if the negotiator lacked sufficient authority, they were likely to be marginalised or overlooked. This understanding underscored the importance of my consistent presence, which enhanced value to my request to access the participants.

Moreover, I remained cognisant of the time constraints associated with my data collection, as I needed to return to Melbourne, Australia, in early October 2023. Despite the challenges posed by the local culture, I maintained my resolve and demonstrated persistence in pursuing this study, as I recognised its potential benefits for the education system. The findings are intended to be disseminated directly to these teachers and future practitioners.

As an insider returning to a familiar environment, I initially anticipated a warm welcome and high regard from colleagues; however, I found myself viewed as an outsider by individuals with whom I had previously established connections. This perception posed a considerable challenge at the school, where the majority of staff

members approached me as an outsider. This treatment may have been influenced by my advanced qualifications and extensive experience, which hindered the effectiveness of my interactions at the school.

Despite these emotional difficulties, I diligently assumed the role of a researcher, demonstrating eagerness and determination while remaining acutely aware of my significant purpose and commitment to the study. I maintained a low profile, showing respect for the teaching staff and the school administration, in contrast to my experience at Samill Primary School, where my accommodation was closer to the school. At Kofaik Primary School, my circumstances differed; I resided at my own residence and commuted to school according to my scheduled engagements. The school attendance was solely to participate in planned discussions with teachers regarding lesson planning, conduct interviews, observe lessons, and engage in lesson reflections. The challenges faced by the school as an urban institution were identified, particularly the need to compete with other urban schools in terms of academic performance and overall reputation within the province. As a result, I approached my actions with greater care and awareness. My goal was to protect my position, represent Victoria University effectively, and ensure the successful collection of data at Kofaik Primary School. Against this backdrop of urban complexity and institution pressure, the following sections present ethnography findings from the lesson observation and interviews with Waka and Kavi. The focus is on how they understood and enacted formative and summative assessment in their Grade 6 English lessons and how the conditions described above shaped what was possible in their day to day practice.

Ethnographic aspects of the interviews

Interviewing Waka and Kavi was primarily conducted during lunchtime and at other times that were convenient for them. However, my allocated time from 3:00 pm to 4:00°pm did not align with their daily schedules. I understood and had respect for them, so I easily adapted to their flow of activities. As the classrooms were close together and there was much noise during lunch hours, we tried to find quiet places, either the school library, which was empty with no books on the shelves or in one of the senior teachers' offices. The senior teacher was kind enough to accommodate me in her office for the nine weeks of my data collection, as the deputy head teacher's office was always full of parents and others who came in for administrative enquiries. All interviews began with

a word of welcome and concluded with my thanks for their participation. The interviews were guided by the four research questions mentioned in Chapter 1.

The initial interviews for Waka and Kavi were conducted in their respective classrooms on Tuesday during the third week of the school term.

Interviews with Waka

In the third week of Term 3, at 2:00 pm, the first interview with Waka was conducted. The students had been dismissed earlier to allow teachers to finalise their assessments in preparation for issuing report cards to parents the following Monday. The environment was notably quiet, which made the interview held in her classroom even more conducive. Waka, also well-prepared, sat facing me at a table between us, and we began our discussion as scheduled, concluding punctually at 3:00 pm. As an experienced teacher with many years of experience in assessments, she shared insights into the assessment process while expressing concerns about the limitations of available resources.

Waka's second interview was scheduled for week 4. I went on time for the interview and reached her classroom, but realised that the door was locked. The students said that she did not come to work because she was sick. Rather, it was disappointing as we exchanged phone numbers during our first meeting, and she should have informed me. This was a typical attitude in Papua New Guinea, where communication was often lacking, as people do not prioritise whether a message was important or not. They failed to consider the emotions of others in their lack of communication. The interview was rescheduled for a later date. It was conducted the following week in the school library. She did her best to answer the interview question.

The third interview with Waka was conducted in the office of the senior teacher. She had been experiencing health issues for the past two weeks, which affected her performance during the interview. Despite this, I continued to pose questions and received her responses. However, she exhibited hesitation in articulating her experiences regarding summative and formative assessments. At times, it was challenging to progress the discussion, especially when the interviewee appeared reticent to engage fully with the questions posed. I respectfully honoured her need for space and concluded the interview promptly.

Waka was the last participant interviewed for her fourth session. It was done in the senior teacher's office from 12:00 pm to 1:00 pm. She showed strong engagement and responded to the questions enthusiastically. She raised concerns about professional activities for teachers. She called for improvements, emphasising the need for schools to take the lead in developing comprehensive professional development programs for teachers.

Interviews with Kavi

At 12:30 pm in week 3 of Term 3, I arrived at Kavi's classroom to commence the first interview. Although it was lunchtime and the students remained inside, Kavi had already prepared for our discussion. He had arranged the table and positioned two chairs—one for himself and one for me. Once the students were sent outside, we started the interview. Kavi responded with confidence to the opening question regarding his understanding of the assessments. To elicit further information, prompts were employed. Despite some background noise, we managed to move forward and conclude the interview effectively.

Kavi's second interview was done at 12:30^opm, his lunch hour in his classroom, and he was ready when I arrived. However, due to excessive noise, we relocated to the senior teacher's office. He was very vocal in expressing himself and discussed how assessment affects student learning. He had been doing his best in teaching and assessing students, ensuring they learned. It was a meaningful and informative interview.

For Kavi's third interview, I waited at the library for the scheduled 12:30 pm interview. It was 12:45 pm when I called his phone to check if he was available. He said he was caught up with something urgent and would come over as soon as he was free. It was not very reassuring because we had scheduled the interview for 12:30 pm, not 3:00 pm, so I expected the teacher to be punctual and keep his word. I grabbed my bag and walked out of the library, frustrated and annoyed by his attitude. While waiting for the bus to go home, I had a second thought and decided to go back. He arrived at 1:15 pm, and we conducted the interview. Such was the Papua New Guinean attitude that punctuality did not concern them, and they did not respect the other person's time. The third interview had two parts, but we only completed the first part because I noticed he was impatient. In his impatience, he did not give his best answers about the current

assessment methods. As soon as the interview ended, he hurried off to finish his previous task. I also headed home. Upon reaching home and while reflecting on the day's events, I told myself to be more patient in similar situations.

The following week, I continued with Part 3b for the third interview and conducted the fourth and final interview with Kavi during the sixth week of Term 3. The interview occurred from 2:00 pm to 3:00 pm in the senior teacher's office. Overall, the discussions were productive; however, the teacher occasionally appeared distracted and focused only partly on the questions. It became clear that he might have been tired from the series of interviews and lesson observations. He expressed concerns about the lack of professional development opportunities within schools, which he indicated had a significant impact on his experience when I asked about the effectiveness of professional activities at the institution. Both Waka and Kavi expressed frustration about the constant power and water disruptions at the school that affect the efficient flow of lessons every day.

Interviews for Waka and Kavi were finished as scheduled, though not always on time. We had to reschedule, which was sometimes frustrating. A genuine commitment would help improve coproduction.

Ethnographic elements of the lesson observations

All classes were scheduled in the morning, between 9:00 am and 10:00 am, and lasted 30 minutes; however, teachers occasionally extended them to 40 to 45 minutes because students did not fully understand some of the content. I was flexible with these extensions because I wanted to observe the entire lesson. It was noted that lesson plans were sometimes not finished on time, as teachers complained about a lack of time. They also stated that the nationally mandated 30-minute curriculum time for English lessons was insufficient. They suggested that allowing more time for teaching English would be enough to cover the topics thoroughly.

Waka's lesson observations in context

Waka delivered four instructional sessions as required, with her initial lesson focusing on grammar and usage, explicitly addressing the formation of *Comparative and superlative forms using irregular verbs*. The lesson commenced positively, with 19 students in attendance, and engaged participation was observed as she posed questions

and students responded favourably to the material. However, as the lesson progressed, Waka assumed complete control of the classroom. She dedicated a majority of her time to explanations and provided examples to enhance students' understanding of how to use irregular verbs for comparisons between entities or actions performed by individuals. It was a teacher-centred lesson, and to my disappointment, the assessment was given five minutes before the end of the lesson. She completed the lesson very quickly without marking the students' activities, which required them to complete sentences by filling in the blanks using an irregular comparative verb.

During this instruction, she presented an incorrect example, stating, "good", "gooder", and "goodest". Despite my efforts to ascertain the validity of this example, I concluded that it was erroneous. Upon reviewing her lesson plan the previous day, it was noted that this terminology was not included, indicating it was an impromptu addition by the teacher. A few students exhibited confusion, but they appeared hesitant to raise the matter with the teacher. This phenomenon is common in Papua New Guinean culture, where teachers are viewed as authoritative figures, and students often accept their assertions as infallible.

It was observed that Waka exhibited signs of nervousness during her presentation and showed a lack of preparedness, as she had not thoroughly reviewed her materials and the list of words to be discussed before the lesson. This situation exemplifies a broader concern regarding the teaching of incorrect English content by some teachers in Papua New Guinea, which may further impede students' development as proficient speakers and writers in the English language.

Waka's second lesson focused on the unit talking, where she discussed the topic, *two actions happening simultaneously*. When I reviewed her lesson plan, I asked about the topic and what she was teaching the students. She provided an example of using 'while' to indicate the sequence of two actions occurring. I noticed she was noticeably louder and more confident than she was in her first lesson. She prepared her work on the blackboard and had the 25 students read after explaining the concepts. It was an interactive lesson; however, only the brighter students responded, while the average students observed without participating. Later, students were asked to give examples, but most did not provide correct answers in their assessments because they had not

performed well in the writing activity. Since it was a speaking lesson, I thought it was appropriate to assess students orally, which is an expected practice.

Waka's lesson three was an oral expression activity on the topic *Coastal areas*. After greeting the students, she divided them into groups and asked a few questions to motivate them. There was active engagement during the lesson, as she provided opportunities for slow learners to at least share their knowledge about coastal areas. A disappointing thing was that she was still planning her lesson when I arrived to observe. She quickly put her pen down and walked to the front to start the lesson. As an experienced primary school teacher, I felt it was unfair and unjust to the students, knowing she was not well prepared for the presentation. I understood and appreciated the importance of planning and preparing lessons in advance. Planning lessons during teaching time was not my practice. The lesson proceeded as planned, with 23 students in groups of four and five describing coastal areas. One group presented their answer and was praised for a good explanation. Sitting at the back of the room, I wondered how the lesson related to English content. In the exercise, students were asked to write a report about coastal areas, which was both an English and a social science topic, but the steps and criteria for writing a report were not part of the lesson. It was not very clear to the students, as they did not perform well even after the lesson, when she collected their work and assessed it.

The final lesson was a reading session centred on the theme, *Slow but steady wins the race*, with a particular focus on the story of the tortoise and the hare. Twenty-six students participated in this lesson, which commenced punctually at 9:00 am to 9:30 am. The teacher began by revisiting the previous lesson before introducing the day's topic and reading the story aloud to the class. Students were organised into groups of four to five and provided with a single photocopied reading passage to share among themselves. However, this arrangement proved insufficient, as not all students were able to engage in reading. Consequently, the student holding the document read aloud while their peers listened, pretended to read, or struggled with mispronunciation. Additionally, the lesson suffered from inadequate time management, as the teacher spent a significant portion of the session explaining the reading passage and its intended meaning. Compounding these challenges, the teacher prepared the class activity during the lesson itself, requesting students to respond to reading comprehension questions based on the

story, which were to be assessed for a total of five marks. The lesson went beyond 30 minutes. The teacher was just prepared for the lesson; thus, advanced lesson preparations were overlooked, and this is a trend in teaching and learning in Papua New Guinea.

Kavi's lesson observations in context

Kavi successfully conducted four lessons as required. It turned out that he was the first to present his lesson. During Lesson 1, which focused on the skill of listening, foolish curiosity, and vanity leading to misfortune, based on the story of the *Tortoise and the Hare*, he instructed the students to create ruled lines and margins in their exercise books, emphasising the importance of neat handwriting. He encouraged student engagement by prompting them to answer questions, which fostered a lively and motivated learning environment. To enhance their learning experience, the teacher utilised sound clips of animal calls played from a mobile device.

The students actively participated and responded to oral questions with enthusiasm. They were then tasked with writing responses to five questions, even though they did not have copies of the reading passages. They demonstrated their ability to recall the story effectively. The teacher communicated to the students that this activity would be graded, which aligned with the principles of assessment *as learning*.

However, it was noteworthy that the teacher did not introduce new vocabulary or provide praise and definitions that could facilitate a deeper understanding of the passage. Although the teacher read the passage aloud, the students did not participate in the reading exercise. Following the reading, they were directed to answer the accompanying questions. The teacher provided oral feedback as he corrected their exercise books, but offered minimal written feedback, noting only the term "sighted".

During the lesson, the teacher approached me to discuss the need for an extension of time, citing the slow pace of the students' progress. He inquired whether he could assess student work for marks during the activity, to which I affirmed that this would indeed be appropriate as an assessment *as learning*.

Time management emerged as a significant area for improvement. The teacher prepared daily and weekly evaluations consistent with the principles of assessment *as learning*; however, effective time management was essential to ensure that lessons did not overlap. It was recommended that the teacher corrected one or two books during the

lesson and subsequently complete the marking after the session concludes. The lesson was wrapped up with a discussion on the moral of the story, and it was worth noting that the teacher displayed a commendable standard of both spoken and written English.

In the second lesson, the focus was on the grammar concept of changing the *Present tense to the present continuous tense*. Twenty-six students were present and actively engaged in the lesson. Kavi encouraged students to write while he annotated the topic on the board, a practice that could be enhanced with prior preparation of materials. Adequate explanations during the warm-up activity stimulated student discussions and contributed to a dynamic learning environment. He provided commendable supervision and immediate feedback, effectively fostering student participation and maintaining engagement throughout the session. The warm-up activity included precise corrections, assisting students in identifying and rectifying errors such as spelling and the appropriate use of tenses. Given that this activity was graded, it was crucial to provide thorough explanations. The students exhibited commendable behaviour and adhered to the given instructions. He further clearly explained the use of the present continuous tense, emphasising the auxiliary verbs ‘is’ and ‘are’ when referring to singular and plural subjects. The assessment given to the student was fill-in-the-blanks using the present tense and the present continuous tense. There was a notable improvement in time management and whole-class corrective measures in comparison to the previous lesson. Additionally, Kavi successfully encouraged the entire class to participate in reading aloud, which facilitated better pronunciation of words.

The third lesson on written expression, which focused on the *Life cycle of frogs*, was conducted as scheduled and included twenty students. He introduced and taught the lesson using questions and discussions with the students. The assessment was for the students to write about an animal’s life cycle. Although an assessment *for* learning sample was provided for the teacher’s reference, he opted to implement a simplified version instead. A more comprehensive approach to student assignments at the foundational stages of education was essential, as it would yield greater validity and reliability in their subsequent educational endeavours. During the lesson, while Kavi guided the explanations, two students expressed confusion and were unprepared to discuss the assigned reading on the life cycle of frogs. Explanation texts possess specific features that needed to be clarified and emphasised throughout the lesson to

ensure students were adequately prepared for the writing tasks. The teacher indicated that the group task, which involved drawing the life cycle of animals other than frogs, would be assessed on an eight-mark scale; he actively supervised and assisted the students during this process. A task description and criteria were given to students to read, and they were allowed one week to complete the assessment.

Kavi's Lesson four was a reading comprehension about *Volcanoes*. Seventeen students were present. The students were informed about the two assessments, which combined both group work and individual assignments, before the lesson began. The teacher clearly articulated the expectations for this lesson, and the assignment criteria were communicated before the session. The assignment consisted of three components, with Part 1 focusing on fluency and accounting for a total of ten marks. The previous assessment activities were outlined for the students.

While the teacher read the story on volcanoes aloud, some students displayed inattentiveness, as they were engaged in chewing gum, and others kept their backpacks on their shoulders. The reading activity involved the entire class, although some students' voices were not audible due to the presence of a few more vocal participants. An additional task required students to define specific vocabulary using dictionaries; however, not all students had access to dictionaries. It would have been beneficial had the teacher prepared a matching exercise for the vocabulary words and their meanings.

The lesson exceeded the allocated time, and the teacher requested that I remain a bit longer to observe the lesson's conclusion. The vocabulary defined during the lesson included: 1. volcano, 2. molten rocks, 3. dormant, 4. eruption, 5. extinct, 6. magma, and 7. chamber. Due to the lack of dictionaries, many students were unable to complete the activity in class. Subsequently, students were asked to share their dictionaries, and the activity was assigned as homework.

Waka and Kavi's contributions to the participatory action research, as demonstrated through lesson observations, showed a degree of inconsistency in lesson planning and preparation. Kavi exhibited promptness in his preparations, completing them as outlined during the post-briefing sessions. Conversely, Waka experienced delays in her planning processes. There was uncertainty about how effectively they were teaching English; both teachers would benefit from presenting content more clearly so that students can accurately grasp the subject matter. It was noted that the difficulties

faced by students in comprehending English in Papua New Guinea were associated with teachers' preparedness and their proficiency in teaching the subject. In their lesson reflections, Waka and Kavi focused on identifying their weaknesses in the subject content. They were advised to engage in further reading and preparation to enhance their lesson presentations. Furthermore, it was recommended that they utilise meaningful teaching methodologies that incorporate engaging approaches, thereby facilitating student-centred lessons that actively involve students and guide them toward acquiring the necessary knowledge and skills in English.

Both Waka and Kavi expressed disappointment regarding the inadequacy of curriculum materials and other resources, a situation exacerbated by frequent power outages that impeded their preparation efforts. Some of their lesson plans were not completed as scheduled. For example, during post-conferencing, Kavi apologised for the delay, explaining that he had a lot of work to do over the weekend, but was still able to conduct the lesson. They also articulated concerns about the challenges posed by their residential locations, which complicated their ability to prepare effectively. The extensive travel associated with commuting via public transport significantly decreased their interest and motivation for advanced planning and instruction. This issue was particularly pronounced for Waka, who endured lengthy commutes to work. This resulted in her returning home well after dark, thereby limiting her time for lesson preparation.

Despite the challenges, they participated in the lesson observations even though it was hard, as the workload was too much for them in an urban school. There were other responsibilities entitled to their names, such as being on duty for a week. For Kavi, he was in charge of school sporting activities and had to organise sports every week, which put a strain on him.

From a Freirean perspective, the strong emphasis on correct completion of written tasks and limited dialogic feedback indicates that assessment at Kofaik often functions within a banking model, with teachers depositing knowledge and checking recall. At the same time, Kavi's use of task descriptions and criteria, and his attempts to involve students in group work, align partially with formative assessment and transformative pedagogies that seek to engage learners more actively, though these efforts are constrained by large classes, time pressures, and resource shortages. Viewed through

culturally relevant pedagogy, the almost exclusive use of English in assessment tasks and criteria, in a linguistically diverse urban school, raises questions about whose linguistic resources are recognised and how this affects students' confidence and performance.

These observations speak directly to my questions about teachers' perceptions and use of assessment: Waka and Kavi valued assessment and attempted to integrate both formative and summative tasks, but their practices remained heavily shaped by exam-oriented demands, limited feedback, and constrained opportunities to use assessment data to adapt teaching or support individual learners.

Co-production at Kofaik Primary School

The lack of communication was a factor that had to be considered during co-production in Papua New Guinea. Effective communication was a concern during my time at the school; neither Waka nor Kavi clearly communicated their availability to me. I provided them with my phone number during our first meeting for this purpose, but it was misinterpreted. Depending on the context in which the study was conducted, in the urban case, schoolteachers had numerous delegated responsibilities that placed considerable pressure on them to participate in the study effectively. Kavi had numerous other responsibilities, but he did his best to participate and got on top of things.

One interesting aspect of Kavi's involvement was that, within the limited time allocated for me to conduct the study, he had to participate with me in conducting a teacher professional development session for the teachers. The session was in two parts. I introduced the session assessment as a teaching pedagogy, and he joined the second part of the session to discuss the types of assessment, as he was particularly interested in assessment *as* learning as an effective evaluation tool. Kavi was the one who recognised the importance of the study and greatly appreciated the opportunity to participate. He had learned a lot about assessment and promised to change his approach, incorporating more assessment *as* learning to be a useful approach in his teachings. This method was more convenient and reliable for teaching and assessing students in his class.

Regardless of any situation unfolding each day, when collaborating on research, the interests of the participants must always be respected and protected, which was what I upheld at the school. It was not about me and my feelings; it was about the well-being of my participants. I put myself last, no matter my personal views. Here, I aimed to

create knowledge with people who were willing to share their time despite having other commitments. The co-production model used at Kofaik Primary School revealed that teachers were exhausted from taking on additional activities beyond their usual curriculum duties. It showed that knowledge can be created under any circumstances.

Similarities encountered in the two case studies

This section is part of Chapters 5 and 6, which combine ideas originating from both schools prevalent in writing them. I merged the following sections that were identified as necessary in both Samill and Kofaik Primary Schools. These ideas are similar in cultural expectations and ways of doing things, as in culturally responsive and contextual sensitivity, which challenge the Western-centric paradigms and affirm pluralistic epistemologies of participatory action research, such as addressing ethical conduct in culturally situated, sensitive research, trust, truth, and lies in this study and designing inclusive, equitable, and sensitive research. What can be done? What can be known?

Culturally responsive and contextual sensitivity: challenge the Western-centric paradigms and affirm pluralistic epistemologies of participatory action research

The cultural diversity of languages and ways of life in Papua New Guinea society poses significant challenges to Western-centric research frameworks, particularly in terms of the informal adherence to established protocols. One of the significant aspects of such is conducting research with school children; there are no systematic rules governing the use of minors in research. Issues of coercion and protection over minors, not only minors but also any research participants, both in high and low-risk research, easily slipped away in my country. In Western contexts, research protocols are rigorously implemented to guide researchers in their conduct within primary educational settings, and governmental departments maintain strict regulations governing researchers' activities in schools.

In contrast, such regulations do not exist in Papua New Guinea. As long as the school authority grants permission for the study, everyone within the school must comply, since the authority serves as the gatekeeper and has the power to oversee them. I was aware of other culturally sensitive issues of dealing with children and appreciating various epistemologies, highlighting the collaborative development of knowledge, and anchoring investigations in the specific cultural and local contexts of the participating

schools. By distributing power across the contexts and blurring the lines between researcher and researched. I worked in collaboration with teachers in the comfort of their schools. I was able to challenge the dominance of prevailing scientific rationalities by offering a carefully thought-out, practical approach through schedules and timelines to mitigate epistemic injustices. This approach involved validating and utilising various knowledge forms in efforts to promote social change that impacts the teaching and evaluation of students' performance in primary schools.

Addressing some ethical conduct in culturally situated, sensitive research

Situational ethical considerations are similar in both schools, in relation to how I interacted with the broader school community and the participating teachers. I maintained a heightened awareness of the cultural norms and belief systems that could impact my approach to participatory action research. I acted with caution in presenting myself to the teachers and students. Significantly, my interactions with the male participants, Rami and Kavi, required me to take precautions regarding what I discussed with them, as well as when and where. I was very mindful of our interactions. I felt it to be a very sensitive issue if my behaviour created jealousy and suspicion, if it did not go well with their spouses, as I felt eyes were watching what went on around me.

As a female researcher interacting with other male teachers who were not participants was also a scenario worth taking precautions for. I was particularly mindful of my behaviour and the nature of my conversations. I was aware that I was under scrutiny from their spouses and other female teachers, which heightened the cultural sensitivity of my interactions within this context. In Papua New Guinea, being a single woman in such situations posed risks, as the perceptions of jealousy among other women could lead to feelings of hostility or even threats to my safety. These experiences presented significant challenges to the dominant Western-centric paradigms that often emphasise objectivity.

In contrast, the deeply ingrained cultural norms and expectations present in traditional Papua New Guinea are interconnected with contemporary Papua New Guinea society, creating a complex environment that directly contested and critiqued conventional Western research methodologies. This intricate interplay of cultural dynamics necessitated a heightened focus on fairness and inclusivity, demonstrating how these societal factors could impede the standard research practices typically

observed in Western contexts. As a result, I approached the interviews and lesson reflections with a high degree of caution, ensuring that they were conducted during official hours and in a manner that allowed for visibility, either within the classrooms or on the external platforms. This cultural norm imposed a certain pressure on me, as it was essential to navigate any potential obstacles and complete the data collection process while leaving a positive impression. It was necessary to know that such implications may have a significant impact on my professional reputation, which could be crucial for job security and future consulting opportunities when working with teachers.

In the context of having a close relative working and serving as the head of the school in the same workplace, it was worth noting that Noko, a participant at Samill Primary School in the study, was the daughter of the head teacher. I approached discussions with a measured degree of caution. Sensitive inquiries were avoided, and I adhered closely to the predetermined interview questions that aligned with the objectives of my study. I maintained a neutral position throughout the interviews to ensure that my questions did not undermine her father's authoritative role within the school. Understanding that our interactions were likely to be observed by other individuals at the school, I diligently confined our relationship to the established parameters of the research. This approach was taken to uphold my credibility as a researcher and to protect her integrity as the head teacher's daughter. No requests were made that extended beyond these clearly defined boundaries, which were established to respect my role as a researcher.

Another vital aspect to consider in my culture is the researcher's attitude and dress. In Papua New Guinea, women are expected to dress in a way that aligns with cultural norms. The typical attire includes a meri blouse with skirts or a laplap tied around the waist, or modest clothing that does not reveal parts of the body. It is a cultural responsibility, as every woman knows how to dress appropriately, even though Western influences have altered our dressing styles. There are places where dressing appropriately is necessary to earn respect from others. I am free to dress as I want, but when I visited the school for research, everyone paid attention to me, observing how I behaved and interacted with others. Cultural and social norms are essential and highly

valued, so I adjusted my behaviour to earn respect from both the participants, other teachers, students and the wider school community.

Additionally, all my clothes from my style of dressing while in Australia were left at Melbourne Airport as I transitioned to Brisbane Airport and left them at the steps of Qantas, the Australian Airline, as I hopped onto the plane to travel to Papua New Guinea for the fieldwork. This might sound like a joke, but it is not; Papua New Guinea's cultural expectations are robust. However, it depended on where the study was conducted; if it were in Port Moresby, the nation's capital, which is more contemporary, the expectations would be different, not so much traditional. To achieve better outcomes for my research, I dressed and behaved in a way that encouraged the participants to collaborate more effectively with me. By being approachable, I lost nothing, as I aimed to foster a smoother working relationship and avoid creating distance between us. This is typical of Papua New Guinea and its realities; I cannot pretend to be a foreigner on my land, though it was hard at times. Despite being caught between Western and traditional Papua New Guinean attire, I had no problem meeting the traditional dress requirements, and I naturally fit in as an insider during the transition, knowing how to dress and behave accordingly.

Trust in relations

To navigate trust, in this study, the participants, the school contexts, and the researcher's perspectives are crucial, as she navigates this critical aspect of the study. My perspective was at Samill, informed by a life-threatening experience, which tested my comfort and safety. Despite my initial instinct to withdraw, particularly following the outbreak of a tribal conflict at the school, I found this incident to be unexpected, as I had not previously encountered such occurrences within educational environments.

However, I had observed similar disturbances in various settlements and locations within Wewak, where I resided and worked for the past decade before commencing my studies. The participants of Samill Primary School, despite being at risk, acknowledged this reality and remained dedicated to contributing to this research, believing that their involvement would yield a favourable outcome. Considering the inherent vulnerabilities, I remained true to my convictions. As an insider, I chose to take calculated risks, believing I had valuable insights to offer to the teachers, students, and community of Papua New Guinea upon completing this study.

None of the participants showed signs of withdrawing, even when it became too much for them at times; they persevered, having respect for the researcher. With this inherent trust, the participants continued with the study until its conclusion. Comparing the four participants, Noko from Samill was the one I would say was the most loyal participant; she remained committed throughout all her interviews and lesson observations. Rami was vulnerable as he had domestic issues, which really pushed him very low as his situation went beyond the scope of being publicised. I watched as his dignity and identity were tarnished. I freaked out, thinking he was going to withdraw, but he turned around and made it his responsibility to participate at his convenience until the end.

I was also concerned that Waka from Kofaik Primary School would withdraw, as she was struggling to commit herself to lesson planning and lesson observations due to being sick for almost a week. However, she was honest about her being ill. She did not give her best in the interviews and lesson observations. I understood that illness is unpredictable beyond my control and did not comment. I was concerned about her stepping down, which would be inconvenient, given that it was already the middle of the term and the school was winding down for the term.

Kavi, on the other hand, was proactive and did his best, even though he admitted that his home environment did not allow him to be efficient in his lesson plan preparations. He also had various responsibilities that occupied his time, which was understandable. It was the school's planned curriculum activities that I had little say in how he conducted his professional roles. Ultimately, he reports back to his superiors. I was a researcher at that time, and my tenure would soon come to an end. I understand that the teachers have professional duties to perform and must continue working with their superiors and colleagues to maintain the school's traditions and customised activities.

Sometimes, there was a lack of communication with the participants, which occasionally annoyed me, but I had time to console myself and face each day as it unfolded. I was honest in my daily activities and patient with them, requesting that they improve in communications with me. By communicating my views on punctuality and maintaining regular contact, we built trust that sustained us until the end. I felt that I had

contributed my time and energy equally with the participants and had time to listen to them without using my power as a researcher.

Summary

Kofaik Primary School's traditions, the socio-cultural context of the surrounding community, and the individuals involved significantly influenced the approach taken in this study. Throughout my interactions, I learnt the importance of patience and humility, which were essential in navigating the unforeseen challenges that arose during my weeks of data collection. While research can be meticulously planned, unexpected challenges often emerge during the fieldwork stage. The ability to face these challenges with a positive outlook was crucial for achieving favourable outcomes.

The schools' Samill and Kofaik had drastic similarities to their traditions, the socio-cultural context, including that of the surrounding communities. The teachers shared similar cultural traditional norms and belief systems that were encountered, which displayed common experiences in terms of cultural sensitivity, equality and ethical consideration. This had a toll on me as I had to navigate ethically approachable norms to interact with the teachers, building long-term trust and relationships with them.

The forthcoming Chapter 7 will provide a cross-case analysis of the data gathered from the two case studies, designated as case study one, Samill Primary School and case study two, Kofaik Primary School.

Chapter 7

Analysis of findings

Working with the fieldwork data

The primary goal of this study was to explore and identify the level of understanding among Papua New Guinean primary school teachers of various types of assessment and how these assessments influence student learning in Papua New Guinea. In this chapter, I draw upon the fieldwork of the bounded case studies of Samill Primary School and Kofaik Primary School to conduct a cross-examination of my findings.

Identifying analytic themes for my study proved to be a significant challenge, given the vast amount of data produced from the interviews, lesson observations, reflections and document analysis. In this analysis, I have had to deal with the overwhelming quantity of information I had gathered. Before conducting the cross-case analysis, I performed a within-case analysis for each case to identify the similarities and differences in the data collected from the two schools. I reviewed the data several times and through multiple revisions, identified several key themes that reflected the diverse perceptions and practices of the participating teachers regarding assessments in their schools. Despite the differences in school contexts, it is worth noting that teachers encountered many similarities rather than differences.

This analysis of the fieldwork data is divided into six parts, and the themes according to their importance: (i) the theoretical and conceptual frameworks; (ii) the impact of the political aspects of the chaotic implementation of dual curricula and the effects of transitioning from the outcomes-based to the standards-based educational structure; (iii) assessment as an evaluative process, aspects of formative and summative assessments and the purpose of assessment in improving teaching and learning, as well as assessment as a teaching strategy; (iv) culturally relevant teaching and learning; (v) the importance professional development; and (vi) external factors affecting teaching, learning, and assessment.

Theorising and conceptualising the analysis

In analysing and gaining a deeper understanding of the data presented, my analysis I think with Haraway's (1988) concept of 'situated knowledges'. This emphasises the significance of context, including social, cultural, historical, and political influences, in shaping our understanding of knowledge. Situated knowledge posits that an individual's

specific circumstances, experiences, and social positions significantly influence their understanding of the world. It suggests that knowledge is embodied and not created from a vacuum or in a disembodied manner.

In this study, teachers' talk about assessment is understood as situated knowledge: their definitions of formative and summative assessment, and their descriptions of how they use test scores and class activities, are shaped by their training under outcomes-based education, their experiences in resource-poor schools, and their everyday negotiations with local communities and authorities.

By drawing on the theory of situated knowledge in my analysis, I shift the focus from viewing knowledge as something produced by a detached, objective observer to adopting a more embodied, situated, and accountable approach to knowledge creation, where four teachers were central to this process. The teachers' voices used in the analysis highlighted the importance of acknowledging the diverse perspectives, arguments, and experiences that shaped their understanding of teaching and evaluating learning in their respective schools. At the same time, my role as an 'insider' in this study influenced the data collected and analysed, ultimately shaping the conclusions drawn about the assessment practices in the two schools.

Furthermore, the significance of situated knowledge for this study prompted me to recognise that knowledge is context-dependent. One must be aware of one's own position within that context and recognise how it affects the interpretation of information.

In this study, Haraway's notion of situated knowledge complements the critical and culturally relevant frameworks outlined in Chapter 2: it reinforces Freire's insistence that knowledge and assessment are never neutral, aligns with Ladson-Billings's focus on culturally grounded understandings of learning, and underscores why the four teachers' locally situated perceptions of assessment in Samill and Kofaik must be read through their particular social, linguistic, and historical locations.

In this analysis, I will begin by outlining the dual nature of the curriculum and education structure, as well as the observations made by teachers during the transition to a standards-based curriculum to provide readers with a clearer understanding of how my analysis is haunted by the top-down political decision-making in the current state of educational reform in Papua New Guinea.

Political contexts implementation of a dual curriculum and educational structure

The research question that frames this section and emerged from the fieldwork data is: “What were Papua New Guinea primary school teachers’ perceptions about using differing types of assessment in teaching and learning?” What affected teaching, learning and assessment?

Haraway’s theory of situated knowledge as politically contextual and situated in its time and place is what occurred in Papua New Guinea’s education system. The country employs a top-down political decision-making model that has significantly impacted teachers in primary schools, influencing assessment practices and affecting both formative and summative assessments within the school system. What became evident in reading through my field notes was the significant duality in hierarchical curriculum implementation and educational structures in the schools. As I listened to the four teachers’ expressions of concern during the lesson reflections, I made field notes, which revealed disgruntled teachers.

Holding my head, I looked around for evidence of the standards-based curriculum implementation as directed by the National Department of Education. I could not see any printed Teachers’ Guides or syllabi to use in planning and teaching. I started to feel overwhelmed me every day. I had no choice but to use the supposedly abolished outcomes-based curriculum, which was readily accessible right under my nose. Confused by the education structure, I continued to plan with the participant teachers in both curricula within a mixed structure of outcomes-based education and standards-based education/curriculum.

Although the four teachers were from different schools and locations, they referenced similar concerns regarding the continued use of the abolished education structure of 3-6-4, which conflicted with the new structure of 1-6-6, which is table 1.1 in Chapter 1 and here it is Table 7.1.

Table 7.1 Papua New Guinea’s Education Structures: old and new

(Adapted from NDoE 2020, p.13)

Student age (years)	Current structure 3–6–4		New structure 1–6–6		Levels of education 1–6–6
	Sector	Grade	Sector		
18	Secondary (four years)	Grade 12	Grade 12	Secondary (six years)	Secondary sector Secondary school: Grades 7–12 (Senior High School: Grades 11 & 12; Junior High School: Grades 7 to 10) National high schools: Grades 11 and 12 (becomes national schools of excellence) flexible open & distance education (FODE) sector
17		Grade 11	Grade 11		
16		Grade 10	Grade 10		
15		Grade 9	Grade 9		
14	Primary (six years)	Grade 8	Grade 8	Primary (six years)	FODE sector Grades 7 to 12 (will also offer matriculation) Technical and vocational education and training sector
13		Grade 7	Grade 7		
12		Grade 6	Grade 6		
11		Grade 5	Grade 5		
10	Elementary (three years)	Grade 4	Grade 4	Pre-school (one year)	Vocational centres: Grades 8, 10 & 12 (will offer National Certificate 1 and National Certificate 2)
9		Grade 3	Grade 3		
8		Elementary 2	Grade 2		
7		Elementary 1	Grade 1		
6		Elementary Prep	Preparatory		
4 & 5	Public–private church community partnership		Kindergarten 1 & 2	Early Childhood (two years)	Primary sector Primary school: Grades 1 to 6
Total years of schooling	Thirteen years		Thirteen years		Pre-school sector preschool: preparatory grade (Kindergarten 1 & 2 by 2023) Special education Includes all sectors

This instructional structure had housed the current reformed standards-based curriculum during the fieldwork in 2023 however, it was not being fully implemented, resulting in confusion amongst all of the participating teachers.

In discussions with the participating teachers who shared similar views on managing dual curricula, it was also evident that there were limited Standards-based curriculum materials at Samill and Kofaik Primary Schools, making planning and teaching challenging. They expressed concerns as they were caught between two education curriculum systems: outcomes-based and standards-based. I noted, with frustration, that this was the eighth year of implementing the reformed standards-based curriculum directed by the Department of Education; yet the government struggled to fully honour its decision to establish education reform to date. Waka from Kofaik Primary School expressed that limited resources were problematic:

A considerable problem affecting assessment, including teaching and learning here, is the resources. We do not have any additional resources; we are only using the English teacher's guide for the new standards-based curriculum. We are still using the old English books from the previous outcomes-based curriculum; the reformed curriculum is structured within the old outcomes-based framework to teach and provide reading activities to students.

While Noko's statement aligns with Waka's, Noko from Samill Primary School argued that she was confused in implementation change, highlighting the deleterious impact of transitioning from outcomes-based to standards-based teaching and learning:

The challenges I faced while administering student assessments involved using two curricula: an outcomes-based curriculum and a standards-based curriculum. They confused me about which curriculum to follow. This impacts the proper planning and use of assessment. I feel like I am at a crossroads.

Waka and Noko voiced serious concerns about how the lack of curriculum materials was negatively affecting their teaching and students' long-term learning. They noted how managing two different curricula and education systems was weakening the integrity of education in delivery. As someone advocating for better education, I had hoped to see in classrooms the changes that were being made to the reformed education structures and curriculum. However, this was not the case and the lack of

implementation of the 1-6-6 reformed structure was generating inconsistencies in teaching and learning.

These structural contradictions meant that teachers in both schools were implementing “standards-based” assessment in name, but relying on outcomes-based materials and habits in practice. This disconnect helps explain why policy ambitions for increased formative assessment and clearer standards have not yet translated into consistent classroom assessment practices, and suggests that any future reforms must prioritise timely, equitable curriculum resourcing and sustained teacher support.

Teachers’ transitioning from outcomes-based to standards-based curriculum

The research question that frames this section and emerged from the fieldwork data is as follows: “What were Papua New Guinea primary school teachers' perceptions about using differing types of assessment in teaching and learning?” What were the challenges?

After thoroughly examining the fieldwork data, it became evident that the four teachers, who were in the midst of transitioning from an outcomes-based to a standards-based curriculum, were experiencing issues with deciding which curriculum to plan and teach. Being indecisive, they made their own decisions and had to follow instructions from their head teachers and senior teachers to plan and teach in both curricula.

The decision affected them because each teacher had received teacher training focusing on outcomes-based curriculum prior to the shift to the new curriculum. Although all four teachers were working with the standards-based curriculum and grappling with its associated content and teaching methods for English, it was clear that they struggled with their English skills, which hampered the delivery of the new curriculum material. For example, Rami often relied on his mobile phone to clarify grammatical concepts, such as auxiliary verbs, during his lessons. This was particularly challenging for him, given that he was only in his third year of teaching, while the others had more professional experience of more than five years. Goro (2021) a Papua New Guinea researcher, in his article titled, “Is it the right time to implement the new 1-6-6 basic education system in Papua New Guinea?” raised a thoughtful response question about whether the time is right to implement standards-based curriculum in Papua New Guinea. Moreover, if teachers in Papua New Guinea are adequately prepared to meet the demands of this new curriculum.

The challenges faced in teaching in English through the standards-based curriculum approach were primarily rooted in the teachers' previous experiences with the outcomes-based curriculum method. The context of the lingering presence of the outcomes-based curriculum complicated their ability to smoothly transition into the standards-based curriculum framework and made it tough for them to align with the new demands into their existing practices. The shift required them to reassess their teaching skills and put themselves to the test as they implemented the standards-based curriculum method. This struggle stemmed from the significant differences between the outcomes-based and standards-based curriculum approaches to teaching English. In the whole language approach used in outcomes-based curriculum, various English skills such as speaking, spelling, and handwriting were integrated into themed lessons (NDoE, 2002; Spady, 1994).

Teachers were responsible for distinguishing these skills within the strands of speaking, listening, reading, and writing through a thematic approach to teaching English. On the other hand, the standards-based curriculum method encouraged teachers to focus on drilling English skills separately (not thematically), adhering to a daily timetable. Such a drastic change led to moments of mental blocks and self-doubt regarding their ability to deliver content effectively. If the teachers had been qualified English specialists, the experience might have been different. For more detailed curriculum information, refer to Table 7.2 below, which outlines the type of curriculum, its implementation timeframe, and the approaches used to teach English:

Table 7.2 Evidence of curriculum implementation in Papua New Guinea

Curriculum type	Duration	Curriculum material	Approach to teaching English	Planning process
Outcomes-based	2000–2016	Surplus is available in all schools	Whole-language approach. Integrated learning outcomes. Thematic teaching style. The thematic approach integrated and addressed all English skills in lessons.	Well-planned and trialled before being rolled out to all provinces.
Standards-based	2017 – present day	Limited curriculum material. Not reaching all schools	English skills – including talking, oral expression, grammar, handwriting, written sentences, and written composition – are drilled separately and timetabled.	Rushed planning before implementation.

In my evaluation of the curriculum with the teachers, it was revealed in discussion that the outcomes-based curriculum promoted both formative and summative assessments equally, and whilst the standards-based curriculum continued to support these methods, it placed a stronger emphasis on formative assessment as a core element of the learning journey. The abrupt shift from outcomes-based to standards-based curriculum left teachers unprepared for the new approach. As a result, the four teachers involved in this study had not been exposed to the concept of formative assessment ‘as’ learning until this study prompted them to implement it in their schools.

Teachers in Papua New Guinea often found themselves navigating a rapidly changing educational landscape that lacked adequate planning, monitoring, and evaluation. It was important to note that there was no dedicated assessment policy document for the standards-based curriculum to guide the assessment components., however, such a policy existed for the outcomes-based curriculum (NDoE, 2003b). Haraway’s (1988) in her conceptualisation of the effects of situated knowledge model suggested how political power structures influenced and shaped how teachers react to

the new reformed curriculum. My analysis of the fieldwork material emphasised how teachers' perspectives must be acknowledged to promote a sense of ownership and engagement in the education process in Papua New Guinea. The transition from outcomes-based curriculum to standards based affected the teachers' pedagogical confidence and efficacy in delivering the curriculum, which in turn affected the students, as learners.

Teacher professional development improves teachers' current knowledge and skills

The research question that frames this section and emerged from the fieldwork data is: "How could professional development assist teachers in improving their assessment practices?"

All four teachers recognised the significance of teacher professional development, noting that it presented essential opportunities to address various teaching and learning challenges in their classrooms. The consistency of teacher professional development was crucial, and it should have been formalised across all schools and provinces in Papua New Guinea. Certain areas of the curriculum, particularly in subjects such as English, needed additional professional development support. Noko from Samill Primary School emphasised the need for more services on assessment practices:

It is important because I need to know how to assess students, especially since there are many different ways to do so. Most of the time, teachers only consider tests and assignments to assess student learning. Another thing is collecting data from students' marks and doing evaluations. We conduct evaluations using students' marks to identify their needs, allowing us to provide targeted support.

Significantly, Noko sought professional development in assessment methods so that she could prepare herself to use alternative methods beyond those with which she was familiar. Kavi from Kofaik Primary School illustrated the importance of teacher professional development well by sharing his insights and experiences, highlighting its significance in the teaching profession:

I will make an example for sports. One teacher comes to the school and is unfamiliar with athletics. The school then ran a workshop on athletics, and the teacher was one of the participants. The school provides the teacher with

an attainment certificate in athletics. Now the teacher knows athletics. The teacher can now teach athletics; without that workshop, the teacher would not have known anything about athletics, and believe me, that teacher would likely have taught inappropriate content on the subject. So, yes, that is how important workshops, in-service training, or school-based in-service training are to us. They help us to gain knowledge.

The responses from the teachers during the interviews clearly indicated a need for suitable and relevant professional development activities for teachers. In her last interviews at Kofaik Primary School, Waka expressed that she recognised my study as a form of teacher professional development, stating that she gained new insights and ideas about assessment.

I still need to be more confident in conducting the assessment. I am learning something new, like the types of assessments. I am now learning something while participating in this study with you, such as the lessons from the observations and reflections we had. Helped me understand how to improve the quality of my classroom assessments. To me, this is professional development for teachers.

Teachers identified the value that teacher professional development provided in improving their teaching skills and curriculum practices. Their eagerness for such activities was evident at the schools. As stated by the four teachers, teacher professional development could be conducted in varying ways, such as sectional meetings, staff briefings, and informal gatherings that offer valuable learning opportunities. Importantly, teachers needed to take the initiative and create space for their own professional growth if they are committed to improving their teaching practices (Kumar & Prasal, 2018; Villegas-Reimes, 2003).

Additionally, the research question was about having teaching professional development as the way forward to improve assessment practices: “How could professional development assist teachers in improving their assessment practices?”

During the fieldwork, I trialled it out to see how much teachers would respond to an in-service for staff development. I initiated a school-based in-service training to support teachers in learning about assessment practices. The in-service training was held for both schools during the data collection phase at different times. A strong enthusiasm

was observed among teachers, who eagerly participated in their respective schools, demonstrating their willingness to learn. This commitment has had a positive impact on their own professional development, embedding teacher professional development into the assessment culture, which was encouraged by Weiner (2009). Teachers demonstrated that they prioritised teacher professional development for the benefit of their students, although professional development appeared to be somewhat overlooked in Papua New Guinea.

My observations revealed that attendance at Samill Primary School was low, with only half of the teachers present, whereas Kofaik Primary School had full attendance. Those who participated demonstrated a genuine determination to expand their knowledge of assessment practices; those who did not attend at Samill Primary School missed out on important content presented as part of the curriculum. The lack of attendance at Samill showed a lack of concern for their own enrichment and engagement in learning new ideas that fostered and promoted efficiency in teaching. It also questioned teachers' ability to engage in such important activities.

Practices of assessment in context: assessment as an evaluative process

The research question that frames this section and emerged from the fieldwork data is: "What were Papua New Guinea primary school teachers' perceptions about using differing types of assessment in teaching and learning?"

All four participants defined assessment according to their prior understanding of this concept. After the question was asked, three of them, Noka, Rami, and Waka, were required to reflect on their classroom practices. They described assessment as a dynamic process in which teaching and learning were integrated in the planning and delivery. While this definition captured the essence of their understanding of assessment, I pursued a more precise explanation of where the assessment process begins and ends. Rami, the participant from Samill Primary School, provided an overview of what he thought assessment involved:

Assessment, in general, is a process that involves planning assessable tasks derived from curriculum content standards, assigning these tasks to students, and collecting and recording marks. After the recording, assessment data is analysed, and grades are awarded to the students. Finally, reports are given to students at the end of a semester. It is a cycle that repeats itself.

Given his background of three years of teaching experience and being fresh from college, his understanding was shaped by what he was taught in college and was more policy-oriented

To ensure that assessments were both authentic and realistic, the four teachers needed to understand the process behind them and how effective and authentic assessment lay within the repetitive cycle. The need for a more refined definition of assessment which could have gauged how well students had absorbed knowledge over time. Throughout the sequential nature of daily lessons across various subjects in the case for well-planned assessments, they were tailored to meet students' learning needs, and were crafted by trained and qualified teachers (Freire, 1998; Wolf et al., 2006).

Noko from Samill Primary School defined assessment "as a process that is an ongoing evaluation of student learning progression. Assessment is how teachers give tests and assignments to their students to assess their learning ability during lessons". Noko only reflected on evaluating students' performance, which was a surface definition of the term; if it was a process, it would have been beneficial for her to explain what the process entailed.

Kavi from Kofaik Primary School, on the other hand, viewed assessment solely as an evaluative tool. He believed it measured students' learning and assigned grades at the conclusion of an assessment period. However, he overlooked the notion that assessment encompassed a process that unfolds before evaluating a student's performance. He failed to recognise that the assessment was made up of various components that contributed to the overall evaluative outcome. As illustrated in Figure 1.1 in Chapter 1, and shown again here as Figure 7.1, the cyclical nature of the assessment process was often overlooked by teachers, a point Rami mentioned but did not explicitly state, which required more clarity of the process as stipulated in the cycle:

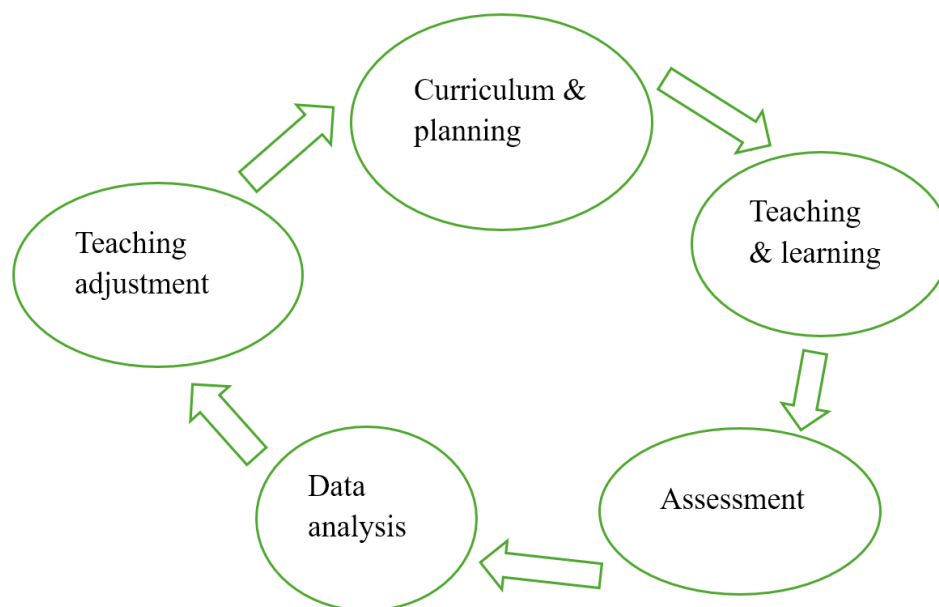


Figure 7.1 Data-informed pedagogy: five-phase model

Based on and derived from the Department of Education (DoE), New South Wales (NSW), 2025

The four teachers articulated their definitions of assessment as a process for determining student marks, reflecting their experiences and understanding, which shaped and guided their classroom practices.

Aspects of formative assessments

The research question that frames this section and emerged from the fieldwork data is “What were Papua New Guinea primary school teachers' perceptions about using differing types of assessment in teaching and learning?”

Teachers were asked to elaborate on their understanding of formative assessment. The four teachers had varying perspectives on formative assessments, which influenced how they implemented this type of assessment in their classrooms. Noko and Rami from Samill Primary School viewed formative assessments as a student-centred strategy, where class activities were assigned to gather scores while simultaneously teaching the content. For instance, Noko illustrated this approach to assessment *as learning* through a 30-minute English lesson. *Formative assessment is classroom-oriented, where teachers assess students’ activities during lessons. It is the type of assessment teachers give students, such as class activities.* She further elaborated by giving an example of how it is done. *When I assigned an activity for a grammar lesson,*

and students are working on it, I circulate to mark their work. After that, I collected their books and entered their English marks.

Teachers defined formative assessment as classroom-based activities they conducted during lessons, and they often recorded marks as they circulated. They saw this as helping them monitor students' learning.

These accounts show that the teachers associated formative assessment primarily with frequency and timing ("during" or "after" teaching) rather than with its role in feeding back into instruction and supporting students' self-regulation. Their emphasis on recording marks during activities suggests that formative assessment was often treated as a series of mini-tests, reinforcing a summative orientation rather than fully enacting assessment for or as learning.

From a Freirean perspective, these practices show that formative assessment was still largely used within a banking logic: teachers checked whether students had the "right" answers and entered marks, but rarely used these interactions as opportunities for dialogue about students' thinking or for shared decision-making about next steps. Through a culturally relevant pedagogy lens, the fact that almost all formative tasks were written in English, with limited use of Tok Pisin or local examples, suggests that students' linguistic and cultural resources were seldom drawn on as assets in assessment. This theoretical framing helps explain why teachers could talk about "improving learning" through assessment while their actual practices continued to privilege correctness and English proficiency over deeper, culturally grounded understanding.

Aspects of summative assessment

The research question that frames this section and emerged from the fieldwork data is: "What were Papua New Guinea primary school teachers' perceptions about using differing types of assessment in teaching and learning?"

The four teachers were further asked to gauge their understanding of the use of summative assessment during the fieldwork interviews. They presented varying views and examples, sharing their experiences of how it was implemented in their classrooms. All explanations provided by the teachers indicated that a summative assessment was conducted at the end of a term, unit, or year. Rami from Samill Primary School attempted to define summative evaluation by providing an example.

From my understanding, summative assessments occurred at the end of a unit or topic taught. For example, in science, if I teach the topic of Food chains after it has been covered for five to six weeks, I can administer a summative assessment, such as a test based on that topic. I have to cover everything I have taught on that topic in the summative test.

Kavi from Kofaik Primary School defined summative assessment as an evaluation and explained to substantiate the meaning.

A summative assessment is a form of evaluation that checks whether students have understood the entire unit of work that has been taught. It is given to test their knowledge of how much they have learned. It is a means to determine if the topics have been adequately covered at the end of the term or assessment period.

Noko and Waka shared their experiences of conducting summative assessments in their classrooms, stating that it involved a comprehensive review of every learning outcome taught during a term. Waka from Kofaik Primary School explained how it was formulated and planned over time:

A summative assessment is done at the end of every term or every assessment period. Suppose I had drawn up my assessment plan for Term 3. For the summative test prepared for that term, the topics are taken from all the topics taught for the ten weeks. It is subject-based. The topics must be taught before they are assessed. I will get questions from the topics taught and prepare a summative test for that term and the assessment period.

Across both schools, summative assessment was consistently understood as end-point testing designed to check coverage of content, with the emphasis on including “everything” taught in a topic or term. This content-coverage view reflects the high-stakes exam culture in PNG and helps explain why teachers tended to see assessment primarily as a mechanism for judging completion and grading, rather than as an opportunity to analyse misconceptions or adjust future teaching.

The teachers’ definitions show an emerging awareness that assessment can inform teaching, but their examples reveal that formative assessment is often implemented as a series of mini-tests, and summative assessment remains dominated by content-coverage examinations. This has direct

implications for professional development: without explicit support to broaden teachers' repertoires beyond testing and marking, the potential of assessment to genuinely support learning in Papua New Guinea classrooms will remain under-realised.

Purpose of assessments: improving teaching and learning

The research question that frames this section and emerged from the fieldwork data is: "How did applying different assessment types affect student learning in Papua New Guinea?"

As we engaged in further discussion the above question during the interviews. The data revealed that they used both formative and summative assessments to improve teaching and learning, making the learning experience more engaging and inclusive for their students. The four teachers regularly reflected on their assessment practices, leading to more informed curriculum choices that enhance student learning outcomes. Each teacher reported utilising both assessments formative and summative to gauge their effectiveness and refine their lesson plans. Noko from Samill Primary School reflecting on her teaching stated:

Suppose I see that most students scored below the benchmark (pass mark). If the benchmark is 25, I would say that 15 out of 30 students scored below the benchmark. I have to revise the lesson and teach it again. I also evaluate myself by reflecting on how I teach the students. I will identify areas that need improvement and attempt to adjust my teaching style accordingly.

All of the teachers expressed a view that all assessment forms are designed to enhance teachers' teaching performance and boost students' learning. They suggested meaningful ideas, highlighting how examining students' marks in every assignment could lead to improvements in teaching methods. Rami, also from Samill Primary School, said, "I can also adapt and apply new teaching strategies well. When I improve my teaching style, the students' learning will improve". This sentiment was echoed by other teachers, who also recognised the importance of adjusting their practices to help students reach their full potential in authenticity. However, they raised concerns about the consistency of their reflections and the frequency of implementing changes to enhance their teaching in a Papua New Guinea context. Waka from Kofaik Primary School shared insights on the effects of assessment further to illustrate the challenge of students' low performance:

If students do not score the expected marks, the assessment data really affects me. It worries me and makes me revisit my test construction. I also

re-examined my assessment criteria and questioned my self-worth as a teacher.

Additionally, teachers noted that their strengths and weaknesses were often revealed through their students' assessment records, which provided valuable insights into both their own performance and that of their students. From the teachers' views on assessment, it was evident that students' assessments were used as a means of surveillance for teachers' efficacy as suggested by Black & Wiliam (1998b).

Situating English in assessment

The research question that frames this section and emerged from the fieldwork data is: "How did applying different assessment types affect student learning in Papua New Guinea school?"

The following answers came about when prompts were used to find out more about how assessments affect students' learning. When presenting this aspect of the data, it was imperative to note how history had influenced Papua New Guinea's education system. The colonial powers introduced English as a medium of instruction and its legacy remains in Papua New Guinea's school curriculum to this day.

Policy dictated that English served as the medium of instruction in schools across Papua New Guinea (NDoE, 2020). This stipulation required that teachers and students communicated, shared ideas, asked questions, and responded to one another in English. However, the reality in the classroom highlighted the difficulties stemming from this requirement. This initiative overlooked the country's rich diversity and the fact that many individuals still resided in rural areas, as represented by Samill Primary School in the study. They lacked access to essential services and exposure to the English language (Rena, 2011). Although bilingualism had been encouraged, its actual implementation was often limited, leaving many students struggling to engage with their teachers effectively. Kavi from Kofaik Primary School stressed the challenges in teaching and interacting with his students.

The challenge I face in the classroom is that if I ask the students questions verbally, they can respond verbally in Tok Pidgin and answer them correctly. The main challenge is to answer the questions in English.

Papua New Guinea students struggled to learn in a language that is tested their self-worth and not connected to their culture. Waka from Kofaik Primary School raised concerns about the students' proficiency in the English language:

Students struggle to speak and write fluently and accurately in the English language. When it comes to assessment, even though the same questions are given in formative assessments and again in summative assessments, they cannot remember/ recall the answers because their comprehension level is very low.

The decision to use English as the primary language of instruction aimed to boost literacy rates in Papua New Guinea was aligned with the global movement for quality education (NDoE, 2010b). However, English was yet to be effectively implemented in the education system in Papua New Guinea.

My observations were consistent across all four teachers' lessons, as they struggled to communicate effectively with their students in English. Written English was found to be weaker, as identified in the analysed student documents. Students had poor written English, with numerous grammatical mistakes, including errors in spelling, punctuation, and sentence structure. As English continues to dominate as a global language of communication, it was a significant hurdle for students and the teachers expressed a view that it would likely benefit students more if they were taught and learned in a language, they were more familiar with, such as Tok Pisin, the country's second official language (Litteral, 1999).

The English curriculum was mandated at the national level by the government's education department. During the lesson observations and interviews, it became clear that teachers were aware of their English skills in speaking and listening, reading and writing: they made efforts despite personal difficulties to incorporate them into their lessons. None of the four teachers was formally trained to teach English at the primary level, which contributed to difficulties in teaching grammar and other English concepts. They gained proficiency in teaching English over time through trial and error, for example, with Rami still grappling with the subject matter.

All participating teachers worked hard to design and present these skills in an engaging manner. For instance, Kavi from Kofaik Primary School kicked off his first lesson on listening skills by recording animal sounds and organising a guessing game

(Naming the Animal), which excited the students as they eagerly identified the animals, making both right and wrong choices upon participating.

On the other hand, Rami from Samill Primary School faced challenges. He struggled to present the material in a way that could capture his students' interest and seemed to lack a solid grasp of the content. It was disheartening to see him sweating as he attempted to convey the lesson on auxiliary verbs and trying to present the lesson with meaningful explanations to make students understand.

The following is an account of my observations during Rami's first lesson at Samill Primary School, where he taught grammar with a focus on auxiliary verbs:

Standing at the front of the class, I saw 66 innocent eyes looking at me from all corners. I taught it through English, which is not my mother tongue/dialect, but I grasped the language through the education system. Speaking it in everyday conversation is not a problem, but teaching it is intimidating; my mind sometimes plays tricks as I try to explain grammar concepts to my students. I was sweating as I explained, yet students thought I was confident and knew everything. I attempted to teach the same concept many times, but I failed. Students did not realise this, as they also needed to learn the language better to argue with me. With that realisation, I continued teaching, pretending I knew it all.

I quietly positioned myself at the back of the room and as the lesson progressed, the contributions from students piqued my interest, particularly regarding the fluency of both the teachers' and students' spoken and written English. The teachers employed effective strategies, such as questioning and discussions, working diligently to break down the English content into more straightforward terms for their students. Nevertheless, students often struggled to articulate their thoughts in English. They frequently resorted to using Tok Pisin, one of Papua New Guinea's primary languages of communication. Rami accepted this for a few minutes, then continued using English, which again confused the whole lesson, and the outcome was poor. As argued by Goro (2021), he questioned whether Papua New Guinea was ready to implement the reformed curriculum.

A significant factor was the teachers' insufficient content knowledge, which resulted in inadequate instruction in English. Waka from Kofaik Primary School

focused on speaking and listening to assess oral expression skills using the topic of coastal areas. In teaching English, she approached the content as if it were a social science lesson, which overshadowed the objective of developing students' oral skills, as they were merely asked to describe and discuss the features of coastal areas. The assessment was conducted in writing rather than orally, which raised concerns about the appropriateness of evaluating oral expression using the existing marking criteria she produced. This situation highlighted a need for Grade 6 teachers to develop a deeper understanding of both teaching and assessing English skills. The teachers' lack of knowledge ultimately led to self-directed lessons, where the teachers unintentionally dominated the classroom (Paraide, 2014a).

Rami, Noko, Waka, and Kavi faced a significant challenge in English comprehension, which was the primary factor affecting the effectiveness of teaching and assessing English language skills. Noko from Samill Primary School expressed her reasons for advocating for teacher professional development in this context:

Teachers often require professional development in specific areas of their teaching. I believe special consideration should be given to teachers who teach English, as many of them face difficulties in teaching grammar.

English is not our native language, so we sometimes struggle with our own grammar. We need to have in-service training based on that, so we can effectively teach the students.

The limited but significant moves towards bilingual questioning and feedback, and occasional use of local contexts in tasks, illustrate that culturally relevant assessment is possible even under constrained conditions. However, these practices are fragile and highly individual; policy and teacher education in Papua New Guinea need to explicitly position teachers as cultural workers in assessment, not only in teaching, if Indigenous languages and knowledge are to be genuinely valued in how learning is judged.

Existing assessment methods

The research question that frames this section and emerged from the fieldwork data is, "What existing assessment methods did Papua New Guinea teachers apply to review student learning and how did they utilise this data in their teaching?"

The reform to a standards-based curriculum material in Papua New Guinea offered various existing methods, including essays, assignments, and observations, that teachers could use for assessments (NDoE, 2017). All participating teachers mentioned that they used a range of assessment methods to collect students' marks, depending on their experience with those methods. The main ones were tests and assignments. I asked them why they were administering tests to students, and they replied that students performed well on the tests. From a teacher educator's perspective, teaching pre-service students at the college how to construct a test using Bloom's Taxonomy was a challenging task. Creating appropriate and relevant questions was difficult for the students, so I questioned the quality of the tests written to assess students in the study. If it were valid and reliable, what did it measure in terms of learning outcomes?

The participating teachers stated the following assessment methods during the interviews. Noko from Samill Primary School stated that she used a variety of methods, including "smaller groups, tests, essays, poems, and assignments. I cannot think of anything else". By stating that she could not think of any other methods shows how limited her exposure was to practical methods for measuring student learning. This indicated a lack of reading, enthusiasm, and commitment to her job from the outset.

In the interview with Waka from Kofaik Primary School, she emphasised that the primary assessment method she used was testing:

The primary assessment method I use is a test. I use oral presentations to assess students; I do not use role-plays and quizzes. For others, such as dance and drama, assignments, and debates. I use assessment and marking criteria to assess students' performances.

She further added that "my supervisors do not provide me with good feedback on my test construction, which is a significant concern. How can I improve my test writing skills?" The question raised by Waka was a significant concern and should be for all teachers. Although other methods were available, teachers were not utilising them well. Teachers needed more exposure to multiple assessment methods for their benefit. Methods such as quizzes, debates, and projects, teachers still needed to use them appropriately to measure the content taught. The methods highlighted by teachers, such as essays, projects, class activities, and oral presentations, aligned well with the methods discussed by Rust (2002), and these were universally used methods. However,

they had overlooked methods that were more closely tied to their culture, such as songs, drama, and storytelling.

The primary method employed by all was testing. When I inquired about their preference for testing over other approaches, Rami and Noko from Samill and Waka from Kofaik Primary Schools responded that students learn more effectively when tests were administered, so they gave many tests to collect marks. However, after reviewing the international literature, I began to question the teachers' viewpoints, as many students struggle with tests; some find it challenging to study and memorise the information needed to answer test questions effectively. While listening to their insights and observing classroom activities, I pondered whether students were adequately prepared for the next level of education, especially considering the variety of assessment methods. Oral presentations and projects were staples at higher educational levels, so students should have been equipped to tackle such challenges as they advance in their studies.

It was apparent as the fieldwork data emerged that the participating teachers often did not utilise diverse assessment methods effectively. There was a pressing need to encourage them to adopt culturally relevant strategies, such as oral presentations, observations, and role-play. Incorporating these techniques into the assessment of English skills while connecting to students' cultural backgrounds would empowered teachers to become cultural workers through culturally responsive pedagogy (Ladson-Billings, 1995; Villegas & Lucas, 2007). While the teachers were making strides in this area, much more was needed across Papua New Guinea to enhance the role of teachers as cultural facilitators. However, as Kavi stated, the English language posed a communication challenge for students in Papua New Guinea.

Assessment as a teaching strategy for teachers

The research question that frames this section and emerged from the fieldwork data is, "What existing assessment methods did Papua New Guinea teachers apply to review student learning and how did they utilise this data in their teaching?"

The four teachers viewed assessment as a summative tool to evaluate learning, which was an endpoint of the teaching and learning process, overlooking other formative ways that the curriculum entailed to achieve its goals. The teachers rarely viewed assessment as a fundamental teaching strategy. When asked to describe their

perspective on assessment as part of teaching pedagogy, they consistently referred to it as simply assessment data—information derived from students’ scores. The teachers’ responses indicated a certain reluctance to embrace assessment as a pedagogical approach, even though they acknowledged it as a valuable opportunity to improve educational effectiveness. They followed a structured routine of preparing lesson plans, delivering instruction, and assessing students, ultimately assigning grades at the end of the assessment period in accordance with their school’s assessment culture (Weiner, 2009). Viewing assessment as a teaching strategy that reflected the quality of instruction required attention according to the teachers’ responses. The idea of assessment to be utilised as a teaching pedagogy extended beyond the scope of assessment data. It included an in-depth analysis of teaching that encompassed the data-informed pedagogical cycle by which all the processes built, ultimately seeing assessment as a pedagogy. Rami from Samill Primary School shared his thoughts on assessment as a teaching strategy.

By utilising assessment data and observing and evaluating the assessment records, I can enhance my teaching and personal growth. I can adopt and apply new teaching strategies well in teaching and learning. When I improve my teaching style, the students’ learning will improve.

Waka from Kofaik Primary School echoed a similar response to Rami’s:

I think it is essential for both students and me to improve in teaching and learning. If students score poorly on assignments, it indicates that they need to improve, and I, as the teacher, will review and evaluate my teaching performance.

During the fieldwork, Samill Primary School teachers were busy conducting end-of-semester assessments in Term 2. Kofaik Primary School teachers were tirelessly conducting end-of-semester assessment reflections with parents early Term 3. Parents came into the school on Monday, the second week of Term 3, to discuss their students’ results with their teachers. There was a noticeable lack of meaningful feedback comments in students’ exercise books, causing them to miss out on vital insights that could improve their learning and promote long-term growth. Noko from Samill Primary School said, “*I hardly give written feedback to students; I only give oral feedback*

during class activities”. If assessment is understood as data-informed pedagogy, refer to Figure 1.1 in Chapter 1, which appears as Figure 7.2.

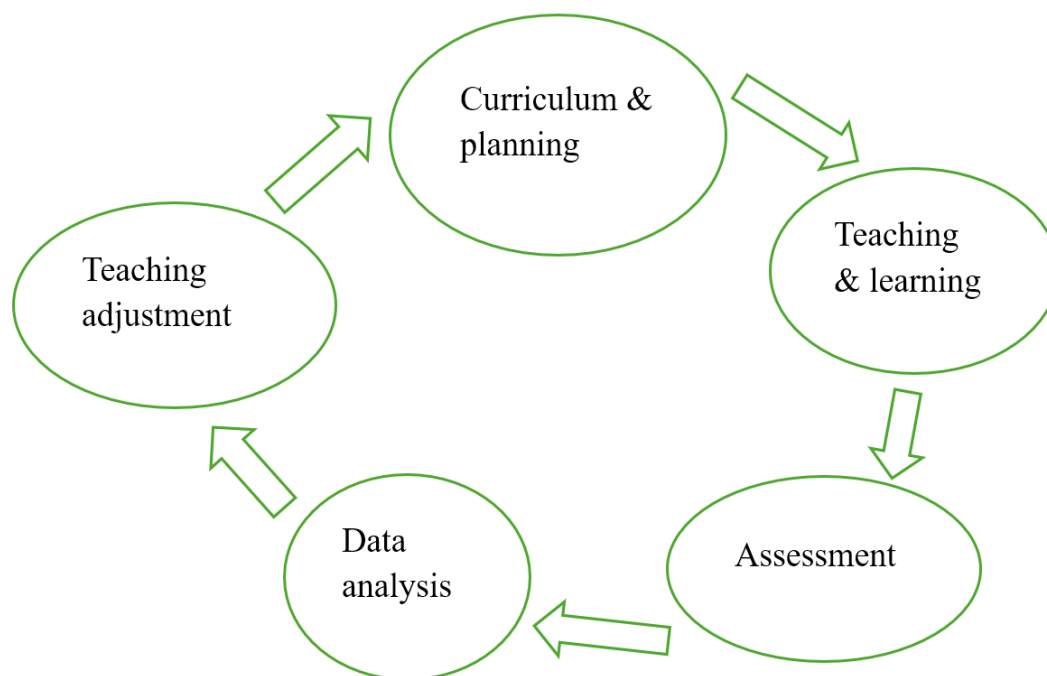


Figure 7.2 Data-informed pedagogy: five-phase model

Based on and derived from the Department of Education (DoE), New South Wales (NSW), 2025

Then, students’ feedback was essential for improving their performance. Kavi from Kofaik Primary School only placed ticks and ‘x’s and signed the page, which showed a lack of quality of constructive and meaningful comments for students’ improvement.

Culturally relevant teaching, learning and assessment

The research question that frames this section and emerged from the fieldwork data is, “What were Papua New Guinea Primary School teachers’ perceptions about using differing types of assessment in teaching and learning?” How do you see yourself as a cultural worker?

As I quietly observed the lessons from the back of the classroom, I reflected on the notion of culturally relevant teaching, which the study intended to observe. It was interesting to see how various teaching skills, including questioning, were woven into their lessons. The teachers notably made a point to relate their topics to real-life

experiences, in which the Papua New Guinea standards-based curriculum emphasised as a key aspect of effective teaching (NDoE, 2020). For instance, in Samill Primary School, Noko's Lesson 2, focused on poems about fruit plants in Papua New Guinea. For her assessment, given a set of marking criteria, she encouraged the students to write individual poems about local fruit plants, such as pineapple and pawpaw, the common ones at Samill.

Afterwards, I gathered the teachers in separate classrooms for a lesson reflection and as we shared our thoughts on the day's teachings, I prompted them to share how they incorporate their culture into the teaching and learning process. Noko from Samill Primary School talked about a subject in the Papua New Guinea school curriculum.

In the Arts Subject, I teach arts and crafts, as well as traditional painting, and ask my students to create crafts such as baskets and bilums. That is how I see myself as a cultural worker. The Samill bilum is the one I encourage my students to make. The boys are asked to create bows and arrows for hunting pigs.

Noko acknowledged that nowadays, the materials used were more modern than traditional. It was encouraging as Noko would like to have seen students engage in traditional cultural activities demonstrating that culture played a crucial role in shaping students and influencing their lives.

Rami from Samill Primary School shared a similar view to Noko's and stated that:

In English, yes. I can assess students by examining the processes of making a Samill bilum and cooking a traditional menu, such as making sago. When I do that with my students, I feel a sense of tradition and happiness in performing something cultural with them. Students come to life when they are engaged in something they are familiar with, and that inspires them to be more of themselves. More traditional and cultural objects are assessed in other subjects. As a cultural worker, I must teach my students what belongs to our culture and integrate foreign concepts as the world changes.

Rami expressed how students came to life when they engaged in something related to real-life experiences within their culture. He emphasised relating what was

familiar, making connections to the unknown, so that he could teach and assess culture in the English subject.

Waka and Kavi from Kofaik Primary School held different views on how they saw themselves as cultural workers. Waka was optimistic and stressed how she sees herself from the outset: “I see myself as a cultural worker when I teach students about my culture, including customs, traditions, languages, and songs, and when I behave in a manner that reflects our cultural heritage.” Waka emphasised that socio-cultural behaviours reflected her community’s cultural expectations, which played a crucial role in her identity as a cultural worker and a woman in society.

Kavi responded with pride:

I am proud of my culture and would like to pass it on to the next generation. The curriculum includes content about our culture, such as traditional songs, traditions, and legends, which I must teach and observe. Sadly, most of my unique cultures are dying due to Western influence and development and highlighted a worrying trend as Papua New Guinea modernises, traditional knowledge is gradually fading away.

The four teachers expressed different perspectives on how they viewed themselves as teachers committed to preserving Papua New Guinea’s cultures through their teaching, which shared traditional knowledge from their culture, rooted in the curriculum. They stated it was crucial to make education culturally inclusive and to embrace traditional knowledge and skills in the reformed curriculum (Pinar, 2012). However, there was still a pressing need to enhance the cultural authenticity of assessments in Papua New Guinea. Ladson-Billings (2014) acknowledged that promoting people’s way of knowing and ways of life was important, and engaging students in arts, crafts, painting, dances, songs, drama, food, languages, and music was a significant aspect of preserving their traditions and cultures, which were lived, learned, and passed on from generation to generation.

Teacher-centred teaching and learning

The research question that frames this section and emerged from the fieldwork data is, “What were Papua New Guinea primary school teachers’ perceptions about using

differing types of assessment in teaching and learning?” Were the lessons students entered?

During the lesson observations, it was evident that teacher-centred approaches predominated in all four Grade 6 classrooms. During the fieldwork phase I sought to gain a deeper understanding of how teachers develop lesson planning, the preparatory stage of the instructional cycle. I was disappointed to find that, prior to participating in this study the teachers did not create or utilise lesson plans. The participating teachers felt that planning lessons was a waste of time and provided several reasons for this perception.

Waka and Kavi from Kofaik Primary School pointed out that when classes were interrupted by water and power outages, lessons were not taught, and this could go on for days. Creating lesson plans that were not taught was a waste of time, Waka and Kavi said this repeatedly. When students returned after classes were dismissed for a day or two, they already missed a significant amount of content, making it challenging for them to catch up on the topics not covered. Redoing lesson plans when classes were suspended again, the cycle repeats. Rami and Noko from Samill Primary School had experienced class suspensions for weeks due to the constant ethnic clashes over land disputes at their school, and they raised similar sentiments to those of Waka and Kavi.

There were inconsistencies and disconnections between lesson objectives and activities and it was evident that both schools demonstrated a significant lack of enthusiasm and preparation for lessons and that teachers overlooked the importance of the data-informed pedagogical cycle approach. Moreover, there was a need to promote and support lesson planning as a crucial part of teaching. Teachers require guidance to navigate the teaching process in every lesson; without a lesson plan, effective teaching cannot be demonstrated.

I was disappointed that the teachers did not meet the expectations outlined in my study. The participating teachers in the study needed to focus more on the fundamental aspects of lesson planning, which were emphasised during their college training.

External issues affecting teaching and learning

The research question that frames this section and emerged from the fieldwork data is: “What were Papua New Guinea primary school teachers' perceptions about using

differing types of assessment in teaching and learning?” What were the issues that affected teaching and learning?

It was important to note that external factors significantly contributed to the improper handling of assessments in schools. The existing conflicts between the ethnic groups in Samill began in the 1990s and remain active to date. During the fieldwork, I witnessed one of those ethnical fights at Samill, which was a frightening experience and a first of its kind. The fight occurred on a Friday afternoon during the second week of data collection. I have never witnessed such encounters in my teaching career. The outsiders, the rival groups, they started arguing and fighting outside somewhere in the neighbouring area. They then went into the school fighting and destroying school property, and as a result, the school was suspended for almost a week.

The recurring fights affected some of the teachers, and they transferred to other schools out of fear for their lives in previous years. Samill students came to school with a great deal of emotional stress and were constantly in fear, always on the lookout. They were not settled in the classrooms as the learning environment was a battlefield, not conducive to learning. This was due to their position in the clashes between the rival tribes. They feared that they would be attacked at any time and their lives were in danger, especially for male students in the two Grade 6 classes. Most of the female students belonged to either tribe; they left school years ago when the fight started in 1990.

The international literature did not support this observation and differed from findings in other countries. Countries, such as those in the Middle East, had experienced wars with other neighbouring countries that dismantled their education systems and were prolonged for years before things went back to normal. It was different in Papua New Guinea, where there were recurring tribal fights that stopped children from attending schools, not only in Samill but also in other parts of the country, and even worse in the Highlands of Papua New Guinea. The experience at Samill coincided with Haraway's model of situated knowledge, as fights in local communities were related to land disputes, which were more social, cultural, and political in Samill. This disrupted teaching and learning, and the overall education of the students in that area.

Summary

The fieldwork highlighted the pressing need for more precise distinctions between assessments conducted for learning and those conducted as learning, both of which serve formative purposes. The teachers endeavoured to grasp the specific components and expectations associated with these two types of and lacked detailed knowledge of their purposes and how they can be implemented.

As I supported and guided the four teachers to adopt an assessment *as* learning approach, they successfully implemented this approach in the study. It was worth noting that although assessment *as* learning was incorporated into the standards-based curriculum and outlined in the teachers' guides across all grade levels (NDoE, 2017), many teachers reported not having sufficient time to read through, learn about, and practice this assessment method.

My positioning as a native from Papua New Guinea helped to form an intersubjective bridge through which the four participating teachers shared their unique perspectives on assessments and their roles in teaching and learning. Drawing on subjective perspectives, where our own unique contextual experiences shaped how we interpreted and make meaning from any given situation, leading to the creation of knowledge of how teachers participated in the classroom's formative and formative activities. This paved the way for enhanced student learning that was shaped by their socio-cultural expectations at the two schools. Drawing on their years of experience in teaching and implementing the Papua New Guinea school curricula. I learnt from their perspectives their broad understanding of assessment as a process.

The importance of teacher professional development in gaining increased knowledge in their profession was a vital requirement that was currently underutilised in Papua New Guinea. If utilised effectively, it would have provided teachers with a valuable opportunity to revisit the data-informed five-phase pedagogical cycle, thereby guiding improvements that enhance teacher effectiveness and efficiency.

The forthcoming Chapter 8 will discuss some of the findings from the analysis.

Chapter 8

Discussion

As I sat in different classrooms at different times and locations, I was nervous and anxious, wondering how teachers would respond to my interview questions and lesson observations. I sometimes questioned why I was conducting this study and for whom, and what its purpose was. As my mind was clouded by various images and ideas while trying to visualise the future and the outcomes of the research. I was constantly disturbed by serious faces, entering and exiting the rooms. Raising my head, I smiled at them to make them feel welcome, and we shook hands. The shaking of their hands and the looks on their faces betrayed my nervousness and exhaustion as different thoughts bombarded my mind.

Introduction

This chapter presents the findings from this study's fieldwork conducted in Papua New Guinea. It is divided into three sections. The main research is as follows;

To what extent did the teachers understand how to utilise a range of assessment practices in primary schools to improve student learning?

Below are the sub questions:

- a) What were Papua New Guinea's primary school teachers' perceptions about using differing types of assessment in teaching and learning?
- b) How did applying differing assessment types affect student learning in Papua New Guinea primary schools?
- c) What existing assessment methods did Papua New Guinea teachers apply to review student learning, and how did they utilise this data in their teaching?
- d) How could professional development assist teachers in improving their assessment practices?

The first section discusses assessments from teachers' perspectives and the challenges involved in improving teaching and learning within the data-informed pedagogical cycle. The second section emphasised the importance of the teacher's professional development role in encouraging teachers to adopt innovative curriculum ideas. Finally, the third section examined the primary factors that constitute weaknesses in teaching, learning, and assessment in both school settings.

Teachers' perceptions of assessment as a concept

In the first research question, “What were Papua New Guinea primary school teachers’ perceptions about using differing types of assessment in teaching and learning?”, teachers were asked to share their understandings of the concept of assessment and what it means to them individually. The study found that all teachers defined assessment as a process that occurs in several stages, ultimately leading to the final grades students receive at the end of a term or assessment period. It was clear that they had a fair understanding of this process and were actively involved in conducting assessments within their schools. However, observing assessments from the outside offers a distinctly different perspective from experiencing the complexities of these interactions firsthand in the classroom.

The findings suggested that the definition of assessment needed further clarification, especially regarding its cyclical and repetitive nature. Rami from Samill Primary School notably pointed out:

Assessment, in general, is a process that involves planning assessable tasks derived from curriculum content standards, assigning these tasks to students, and collecting and recording marks. After the recording, assessment data is analysed, and grades are awarded to the students. Finally, reports are given to students at the end of a semester. It is a cycle that repeats itself.

Rami’s definition of assessment aligned with the idea assessment as a repetitive cycle, which was not clearly represented in the definitions offered by Noko, Waka and Kavi. The definition provided by Rami supported this cyclical process of practical assessment, which began with curriculum planning and provided a more precise understanding that guided both teachers and students toward achieving the learning outcomes outlined in the curriculum (QCAA, 2019). Brown (2004) emphasised this point: there were no shortcuts in assessing students, meaning assessments must be carefully planned, and the learning objectives should be taught before they were evaluated.

Through the fieldwork, the importance of considering the developmental and socio-economic contexts, which existing international literature did not adequately address for Papua New Guinean teachers became evident. For the teachers in this study, assessment presented significant challenges not because they were less capable than

their counterparts in more resourced systems, but because they were working within under-resourced, politically unstable curriculum reforms and with limited access to assessment-focused professional development. Under these conditions, it is unsurprising that their definitions of assessment were narrower and more task- and grading-focused than those described in international literature.

The implementation of data-informed pedagogy in Papua New Guinea was inconsistent. Papua New Guinean teachers were required to gain a clearer understanding of the process. It should be viewed as a recurring, interconnected cycle and as a dynamic, ongoing practice rather than as a rigid, impractical framework. In the Papua New Guinea classrooms, I observed, assessments were conducted without proper planning and with little reference or relevance to the curriculum.

Integrating formative assessment *as* learning

Formative assessment *as* learning has unique characteristics that teachers need to understand for effective practical application. When I arrived at the school to begin my fieldwork, it immediately became apparent to me that the four teachers lacked an understanding of the use of assessment *as* learning in their evaluations. In discussing the assessment *as* learning approach with the teachers during lesson planning, the teachers realised that assessment *as* learning could be effectively integrated into their lessons. For example, Kavi from Kofaik Primary School later stated in an interview that through these discussions with me, he learnt how to assess learning, finding assessment *as* learning a simple and effective way to evaluate student progress in his lessons. Kavi and other teachers meaningfully included assessment *as* learning in their daily lesson plans through various engaging activities, such as fill-in-the-blank exercises and short-answer questions, as observed in their last three lessons. Kavi also reported that he realised that students learnt well when he responded promptly to assess learning activities.

All four teachers pointed out that the concept of assessment *as* learning introduced during our sessions was a straightforward approach to collecting students' marks, rather than relying solely on assessments *for* learning and summative evaluations. As I observed the teachers using assessment *as* learning an effective tool in their classes.

Although the Papua New Guinea Teachers' Guides for the new standards-based curriculum clearly outlined assessment expectations, many teachers struggled to find the time to read, understand, and implement assessment *as* learning (NDoE, 2017). Pinar

(2012) suggested that teachers needed to take ownership of the curriculum and the authenticity of its strategies. However, my observation was that the teachers required greater more exposure and preparation for diversity, of the learners.

Summative assessment comprises final tests only

My fieldwork revealed that summative assessments, also called assessments *of* learning, conducted in schools to evaluate students' performance typically take the form of tests. Noko, Rami and Waka were of the view that their students performed better in tests than in other forms of assessment, such as projects, reports, and both written and oral presentations. However, this perspective contradicted international literature (Alkharusi, 2008; ASQA, 2021; Brown, 2011), which recommended that teachers should not always rely solely on tests, but also use other types of final assessments. Kavi from Kofaik Primary School, when comparing assessment as learning to that of a summative test, contradicted the other three teachers. He reported that "students struggle to answer in an hour-long test". He elaborated that many students struggled under the pressure to study diligently for an end-of-term test.

Previous studies of students' worldwide echo Kavi's observations. Additionally, simply testing students might have been unfair to those who struggled academically, as they may have underperformed during tests (Harlen, 2007b; QCAA, 2019). During the review of definitions provided by teachers, it became apparent that the distinctive benefit of utilising self-administered summative assessments for grading and validating student achievement was overlooked.

The exclusive use of tests in summative assessment undermined students' assessment through interaction and collaboration. Suggested by Giroux (1997) these narrowed rather than broadened the student's perspectives on showing what they have learned. Giroux (1985) emphasised giving students' independence to explore and engage in learning within a culturally situated learning atmosphere, where they become authentic learners. Teachers become facilitators of learning, guiding students through various learning experiences to achieve the stated learning outcomes and expectations of every lesson conducted.

In their role of teachers as cultural facilitators, Ladson-Billings (1999) placed significant emphasis on authentic assessments as these encouraged students to undertake real-world tasks that reflected their acquired knowledge and skills in real-life

experiences. Applying the concept of culturally relevant pedagogy significantly promoted the practical application and meaningful engagement of student learning in culturally situated learning environments. Unfortunately, integrating culturally relevant knowledge and skills into assessments was not being applied in Papua New Guinea.

This study suggested that Papua New Guinean teachers lacked culturally relevant teaching methods, which could be attributed to insufficient encouragement and awareness of their importance during teacher training. This study highlighted the importance of incorporating culturally relevant pedagogy in the Papua New Guinean classroom. It also advocated for the development of assessment policies that helped teachers effectively incorporate Papua New Guinean cultural values, which involved creating context-specific assessments that recognise and explore the hidden knowledge and skills students bring to school (NDoE, 2003b; Vavrus, 2008). My research suggested that teachers in Papua New Guinea required ongoing professional development to enhance their assessment practices and achieve improved learning outcomes through the use of culturally relevant pedagogy.

Assessment is a tool for refining instructional methods

The second research question was to explore how applying the formative and summative assessments helps students learn: “How did applying differing assessment types affect student learning in Papua New Guinea primary schools?”

The findings from my analysis revealed that assessment played a vital role in enhancing teaching and learning. All participating teachers indicated that assessment helped them identify their strengths and weaknesses, enabling them to refine their instructional methods to support student learning better. It became apparent that teachers often felt significant pressure when their students did not excel in assessments, as expressed by all teachers; this prompted them to strive for continual improvement across all lessons. This indicates that teachers in Papua New Guinea already hold a promising belief in assessment as a tool for refining instruction, but lack a broader repertoire of strategies for using evidence beyond whole-class re-teaching. Professional development that focuses on differentiated responses and on involving students in interpreting and acting on assessment information could deepen the learning benefits they seek.

The teachers viewed assessment as a guiding tool to recognise their weaknesses, and students used assessments to motivate them to study harder and seek help from their

teachers. The NDoE (2003b) Assessment and Policy Document for the Papua New Guinea school system emphasised that student data played a significant role in promoting teaching improvement, which teachers were encouraged to embrace. However, it was unfair when teachers tried to be inclusive and students were reluctantly not included in practice behind the walls of their classrooms.

According to Tosuncuoglu (2018), utilising student data to improve teaching and learning was not only important but also efficient, as this data was readily available throughout the teaching process. It enabled teachers to refer to it periodically to evaluate the student learning process. Monteiro et al. (2021) that explored the perceptions of both teachers and students found that teachers believed the primary goal of assessment was to foster learning and teaching improvement. This mirrored the views held by teachers in Papua New Guinea regarding assessments. However, as observed in the participating teachers' lessons, more work was necessary to drive culturally responsive authentic assessments.

Another significant aspect of improving learning was providing constructive feedback on students' performance. This study revealed when analysing students' documents providing feedback was minimal and nonconstructive with the participating teachers providing only brief, non-meaningful comments, for example, "good" and "very good". When I questioned about the initial willingness to provide feedback, Noko from Samill said it was a, "waste of time" for her, as students did not pay attention to those comments. The phrase "waste of time" was one I heard repeatedly from teachers in the study. It prompted me to propose how student feedback was an area that required further research in the Papua New Guinea teacher's toolkit. Also, it underscored the notion that the primary purpose of assessment was to enhance the quality of teaching and learning (Jabbarifar, 2009; Spiller, 2015). During lessons, it was observed that teachers did not fully and meaningfully apply oral feedback and reinforcement skills to foster learning, resulting in the sequencing and pace of lessons being dictated by the teachers (Moon, 2005).

From my observations it was apparent that the students could not effectively engage with the content, as some of it was difficult for them to comprehend. Gilliam (1984) in her reflection on using the English language in education, argued that students were often enslaved by it. Students were often disengaged by a language they had not

previously encountered before attending the school system. Encouraging more teacher-centred lessons overpowered students' centred approach to learning, and students did not perform well in the assessment for learning.

Tests, essays, and class activities: methods used to assess learning

The third question focused on the various assessment methods used to gather students' marks: "What existing assessment methods did Papua New Guinea teachers apply to review student learning, and how did they utilise this data in their teaching?"

This study revealed that teachers employed a range of assessment techniques to collect and analyse data on student performance. The most common methods included tests, essays, and class activities. However, there were differing opinions among teachers regarding the specific methods they utilised in assessing the English skills of speaking, listening, reading, and writing, as not all teachers applied the same approaches. The choice of methods often hinged on the students' abilities to engage with those assessments. Consequently, it became evident that the needs of the students played a significant role in guiding teachers toward selecting the most suitable assessment methods.

Research by Ara and Saeed (2020) which suggested that student characteristics could influence teaching styles and assessment practices designed to meet diverse learning needs. The existing literature backed up the notion that a variety of assessment tools that addressed student diversity and differences in learning were to be utilised for effective assessment (Rust, 2002). There was an extensive array of methods available in the education and training sector that teachers could implement, provided they had the time to familiarise themselves with these approaches (NDoE, 2002). Assignment methods could take many forms, such as maintaining records of student work, creating portfolios, and conducting presentations, both written and oral, along with quizzes, direct observations, interviews, peer feedback, as well as creative activities like dance and drama (ASQA, 2021; NDoE, 2017; Rust, 2002). However, the four teachers were confined to the ones they were familiar with, such as tests.

Questioning the quality of written tests

The study identified that the quality of testing was a concern, as expressed by Waka from Kofaik Primary School, when explaining the expectations of the summative

assessment in using the test method. This was from interviews and again in the lesson reflections. It raised concerns about the quality of tests, how it was prepared and disseminated to students. Waka stressed that individual teachers created tests according to their assessment schedules and then sent them to their supervisors for feedback and revisions. However, the comments received were superficial and offered little guidance for improvement. When that happened, teachers distributed the tests without further delays to meet their assessment plans and schedules. It was clear that senior teachers and supervisors either lacked knowledge of Bloom's Taxonomy or did not fully understand the criteria involved in designing practical tests and highlights how the participating teachers required refresher courses and professional development to enhance their test-writing skills. As someone familiar with this context, I believed the success of these assessments depended on teachers' understanding and comfort with different methods, as well as their classroom experiences. Many teachers, who had limited exposure to these techniques during their college years, may need more time to fully understand the varying methods and a willingness to try new ideas. This was along with their enthusiasm, creativity, and teaching experience as noted by Farren (2015) and Wilson et al. (2021). This also significantly contributed to the improvement of assessment practices in schools.

Mikre (2010) emphasised the importance of teachers stepping outside their comfort zones to gain new concepts and skills related to assessment. This, in turn, could improve their decision-making and instructional practices within the curriculum. One possible reason for the lack of creativity among teachers in Papua New Guinea was their tendency to stick to established norms and find comfort in creating tests as the primary method. This often hinders individual professional growth and upskilling. Pinar (2012) advocated for educational reforms that require teachers to act as agents of change, highlighting the need for them to adapt to new challenges. Unfortunately, teacher-student transformation in Papua New Guinea would take some time to achieve fundamental change, growth, and transformation, which the education sector significantly influences.

Assessment as teaching pedagogy

Interviews with the participating teachers revealed that they often provided inadequate responses to the question about using assessment as a teaching strategy. They stated that

assessments were what they gave their students, and that marks were collected, which could help them modify their teaching approaches. This response was relatively shallow and only a small part of its broader meaning in the entire assessment process. For the four teachers, assessments served as a means to improve their practices, both in teaching and learning, and that was all they could think about. This highlighted the need for a deeper understanding of the meaning behind assessment as a teaching tool, not only to enhance teaching and learning, but also to recognise the vital role assessment plays in the entire assessment process. This included the selection of assessment methods used to measure learning. As reported by Vano der Kleij and Lipnevich (2021), for teachers to apply assessment as a teaching pedagogy, they must be confident and possess the appropriate knowledge to choose effective assessment methods to test student learning.

This study has yet to convincingly demonstrate that Papua New Guinea teachers consistently utilise assessment as an integral part of their teaching, as mandated in the data-informed pedagogical model. Jimaa (2011) suggested that teachers must engage students with meaningful assessment tasks that promote authenticity in measuring the learning outcomes designed in the curriculum. Using assessment data to inform pedagogy stimulated learning and curiosity, directed students to develop critical thinking skills that drove them to be creative individuals (Opre, 2015). The teachers in the study considered assessments a means of improving their teaching, without paying much attention to how assessments affect students' engagement. They did not realise that the immediate methods used in assessing students were also part of using assessment as a pedagogy, as well as in the planning of assessments.

Regardless of not knowing the concepts of data-informed practices before the fieldwork, participating teachers reported that the data-informed pedagogy approach that I introduced facilitated their understanding of how assessment is a congruent and inherent aspect of transforming the practice of assessment in their classrooms.

Ingersoll and Collins (2018) stated that teachers at all levels were transformational figures who adapted their practices to meet their professional responsibilities and responded to different student learning styles when using assessment appropriately. As I explained how the five-phase data-informed pedagogical cycle was essential as it forms the foundation for utilising student assessment data as a teaching tool and that the entire learning process hinged on a shared sense of responsibility between teachers and

students. This was critical for achieving successful outcomes (NDoE, 2002; Peterson et al., 2018). The teachers developed an understanding of using data in a meaningful way to enhance instructional methods and achieve the desired learning outcomes and student transformations, aligned with the curriculum.

Datnow and Hubbard (2016), in their literature review on educators' capacity for and beliefs about data-driven decision-making noted it was crucial to address issues such as teachers' belief systems and their ability to utilise data effectively. By enhancing their understanding of the phases involved with the five-phases of the data-informed pedagogical approach and effectively integrating classroom assessments, teachers could make significant strides in their practice in curriculum (Carr et al., 2005). Therefore, a finding from the study was that it was vital for Papua New Guinea teachers to know exactly how to interpret the data for all students across the curriculum responsibly.

Significance of teacher professional development in Papua New Guinea

The fourth research question: "How could professional development assist teachers in improving their assessment practices?" This question examined how professional development for teachers could aid teachers in improving their assessment practices while recognising the interconnectedness of various curriculum issues. My study revealed that all four teachers genuinely understood the importance of teacher upgrading activities and were eager for ongoing and consistent support from these programs within their schools and provinces. Discussions with the teachers highlighted that teacher professional development was crucial for the continuous enhancement of teachers' knowledge and skills in teaching methodologies, English content, and, particularly, assessment. The existing literature reinforced the significance of teacher professional development, emphasising that teachers must regularly refresh their skills and knowledge to adapt to educational demands and maintain high-quality teaching in the learning environments (Glatthorn, 1995; Singha & Sidkar, 2018; Park & So, 2014). Ingersoll and Collins (2018) described teacher professional development as advanced training that equipped teachers to navigate various challenges related to teaching and the curriculum, including effective assessment practices. In comparison, Darling-Hammond et al. (2017) and Kedzior and Fifield (2004) identified the characteristics of quality teacher professional development, such as extended and active learning, where teachers had opportunities to engage actively in ongoing sessions. This applied and worked well

to teachers in developed countries, and was less of a priority in Papua New Guinea, as revealed by this study.

While teacher professional development was prioritised and closely monitored in developed Western countries, it was often neglected in some developing nations, where teachers' needs were insufficiently addressed. This research highlighted how teachers in Papua New Guinea recognised the critical need for teacher professional development; however, they required it to bolster their existing knowledge and skills amid significant changes in the educational landscape, such as the ongoing education reform and its associated challenges. As the standards-based curriculum was relatively new, teachers required extensive professional development to build their confidence, forge connections, and foster a sense of ownership over the curriculum.

Pinar's (2012) social meliorism curriculum theory suggested that educational reforms could foster societal change. It influenced how teachers took on curriculum responsibility, plan and teach, and direct learning from the known to real-life experiences and advocates for educational reforms that empowered both students and teachers as equal partners in the learning process. This approach fostered a sense of connectedness, integral to effective teaching and learning, through collaboration between teachers and students to make lessons more meaningful and contextual. Thereby, this would achieve both short- and long-term educational goals. All voices should be heard in the reformed process, and in my study, teachers' voices were yet to be heard and empowered, and they should have had a voice in matters affecting their teaching for equality and transparency. This could be achieved through teacher professional initiatives, which enabled teachers to express their voices as they participated in and learn new skills and ideas during regular teacher professional development sessions. By building on students' existing knowledge and guiding them from the familiar to the unfamiliar, teachers could bridge gaps, ultimately leading to new learning experiences and skills that benefitted students now and in their post-school lives (Gay, 2010; Pinar, 2012).

My research has indicated that the absence of timely teacher professional development has led some teachers to rely on copying existing lesson plans and assessment criteria. This has resulted in a teaching approach that lacks authenticity. These findings resonated with Lingawa's (2013) PhD thesis, which emphasised that

teachers in Papua New Guinea needed more refresher courses, underscoring the ongoing underdevelopment of teacher professional development in the region. To effectively implement and teach the reformed curriculum, teachers required clear guidance and a well-defined roadmap. Such support was essential to prevent them from reverting to the previously discontinued outcomes-based curriculum when faced with uncertainties regarding what content to teach or whether to use the outcomes-based curriculum as a resource.

This study identified a lack of or limited practice of teacher professional development in Papua New Guinea and needed a more improved systematic arrangement. The teachers stated that the government and its agencies, including school inspectors, head teachers, and senior teachers, were not doing much to promote teacher professional development in schools. This was a significant concern that the four teachers regarded as crucial. International research emphasised the importance of teacher professional development in improving teaching. It should have been a key part of professional development, conducted regularly with proper monitoring and evaluation to ensure sustainability (Darling-Hammond et al., 2017; Phetta & Newman, 2020).

Villegas-Reimer (2003) highlighted different models of teacher professional development dividing them into two main types: a) organisational partnerships and b) small-group/individual approaches. Schools in Papua New Guinea were familiar with small-group teacher professional development, such as staff-based in-service training. This was delivered through staff meetings and sectional meetings at different grade levels, but it was not effective in many rural and remote schools.

Research conducted by scholars in Papua New Guinea (Airi, 2019; Avalos, 1993; Goro, 2021; Kukari, 2012; Lingawa, 2013) indicated that inadequate in-service training, limited understanding of the curriculum, and limited access to educational policy information, such as assessment guidelines, hindered teachers' performance and added to their burdens. Often, policy documents failed to reach teachers, getting stalled at administrative levels, with teachers remaining unaware of the necessary information. Teachers must be informed about the various policies governing their profession through effective professional development. Current levels of knowledge regarding educational policies among teachers were insufficient.

Papua New Guinea needed to recognise that teacher professional development extended beyond initial training and on-the-job induction for new teachers; ongoing professional development and growth were vital throughout a career (Singha & Sikdar, 2018). This perspective recognised that mastering complex skills and knowledge was a continuous and gradual process that required patience and commitment to acquire. Professionals must regularly update their skills as technology and knowledge advance (Darling-Hammond et al., 2017). Although teacher professional development had proven effective in many countries, it had yet to achieve the same level of success in Papua New Guinea.

To implement curriculum changes effectively, teachers must be encouraged to adopt a dialogic perspective during teacher professional development. Their perspectives and insights were essential, as they were the ones directly impacted by reform initiatives. Unfortunately, this was not the reality in Papua New Guinea, as teachers often felt overburdened and treated as second-class employees merely implementing a curriculum designed by others, with little input into its development. They found themselves in a precarious position, facing the threat of job loss if they resisted changes. This kept them tethered to a challenging work environment that hampered their ability to teach effectively (Rena, 2011). This was evident in the way the government directed schools to implement the reformed standards-based curriculum. However, the teachers had no contribution to its development, and the changes it brought to teachers and students.

Factors affecting assessment in schools: effects of English on students and teachers

The study clearly demonstrated that a student's ability to comprehend English was a fundamental factor affecting their performance in both written and oral tasks. Most Grade 6 students at Kofaik Primary School and Samill Primary School displayed a limited vocabulary in English, which hindered their ability to express themselves effectively and communicate clearly. This language barrier disrupted the natural flow of conversations between teachers and students in Papua New Guinea classrooms. These findings raised questions about equitable representation in the education system. Without addressing the language barrier, students in Papua New Guinea would continue to face challenges that dampen their growth and hinder their path to a better life. I observed these challenges firsthand during lesson observations, and as I reviewed the

students' activity books, I struggled to make sense of their work. During the lessons, responses to questions were sparse, with only one or two students able to communicate effectively in English, especially at Kofaik Primary School, compared to Samill Primary School. The lack of English comprehension had significantly affected students and remained a pressing issue since the curriculum reforms began in 2002 and recently in 2017 (Airi, 2019; Devette-Chee, 2021a; Goro, 2021).

I noted that teachers needed to improve their English proficiency. The standard of written English in lesson plans, assessment descriptions, and criteria required greater clarity in several areas. To cope with this challenge, some teachers resorted to copying technical terms from the teachers' guides, passing them off as their own. During lesson observations, it became clear that teachers lacked sufficient content knowledge, particularly in grammar lessons and key English skills such as oral expression, speaking, and listening. Their teaching standards indicated that their spoken English was not up to par and needed refinement. This shortfall affected student assessments, as many students struggled to grasp the language required to complete tasks, resulting in poorly finished work.

The teachers' fluency in English posed a significant challenge in the delivery and assessment of lesson content. Researchers from Papua New Guinea, including Goro (2021), Rena (2011), and Paraide (2014b), along with scholars from abroad such as Litteral (1999), Megarrity (2005), as well as the Papua New Guinea Department of Education through its Development Strategic Plan 2010-2030 (NDoE, 2010b) have confirmed the struggles with English comprehension among both teachers and students in Papua New Guinea's primary schools. My own research clearly showed that both groups faced difficulties in speaking and writing fluent English. I identified the immediate challenges facing teachers and students in continually navigating colonisation in the education system in Papua New Guinea. The challenge lay in reconciling the use of English, a remnant of our colonised past, with our efforts toward decolonisation. Despite the ongoing struggle, we find it difficult to shift away from English as the language of instruction in schools, given Papua New Guinea's rich tapestry of diverse languages and cultures (Levy, 2005; Litteral, 1999; Megarrity, 2005).

By acknowledging cultural elements, teachers should focus on enriching assessments and instructional strategies based on the five phases of the data-informed

pedagogical cycle to provide guidance. Once the barriers to acquiring English language skills are removed, all elements of the data-informed pedagogical cycle will flourish, resulting in transformative improvements in educational standards and literacy rates. The National Department of Education faces significant challenges ahead.

Dualism: curriculum and education structure affect learning

The study revealed that Samill Primary School and Kofaik Primary School were caught in a dual learning scenario, operating under both outcomes-based curriculum and standards-based curriculum frameworks within a combined structure of outcomes-based and standards-based education. During my data collection, I observed teachers expressing their frustrations regarding the confusion caused by the National Department of Education in Papua New Guinea. Papua New Guinea needs to commit to a single curriculum and education structure rather than remain stuck in indecision. This reality, unfortunately, was not backed by Western literature, which suggested that the issue may be politically motivated in Papua New Guinea.

The coexistence of both curricula and structures has had a significant impact on assessments, both formative and summative, leaving teachers uncertain about which curriculum to use for planning lessons and evaluating students. Many well-intentioned teachers found themselves in a difficult position, unsure of which direction to follow. As a result, their students were deprived of the right to receive a coherent education. The government's National Education Plan for 2020 to 2029 emphasised the need for quality learning, which must have stemmed from a properly aligned curriculum and assessment system (NDoE, 2020). Similarly, Papua New Guinea's Vision 2050 (NDoE, 2010a) aimed to achieve quality education by 2050. However, this goal remains out of reach unless the issues regarding the dual curricula and structures are addressed.

The introduction of the new standards-based curriculum in 2017 was an attempt to address the challenge of developing an appropriate and relevant curriculum tailored to the needs of Papua New Guinea. Nevertheless, the pressing concern was how effectively this curriculum is reaching schools, both urban and rural. By the time of this study, in its ninth year of implementation, the standards-based curriculum had yet to reach many schools, resulting in significant delays. The readiness of Papua New Guinea for such curriculum reforms was questionable, as researcher Goro (2021) had pointed

out concerns about Papua New Guinea's preparedness to implement the new education structure and curriculum introduced in 2017.

Confused teachers

It was evident from the fieldwork that these dual curricular arrangements complicated the learning process, as students were left in a state of limbo between outcomes-based and standards-based curricula. Teachers, in turn, faced confusion and frustration as they navigated this transitional phase. It was crucial for proper monitoring and evaluation to take place; education officials in Port Moresby needed to assess the extent to which the new curriculum materials had been distributed nationwide. Observing their implementation during my study revealed a troubling lack of understanding among decision-makers in Port Moresby regarding the curriculum delivery process and its monitoring and evaluation processes.

Several researchers in Papua New Guinea had noted the ongoing structural and curricular changes, echoing similar concerns about the quality of education in the country and the directions the education reforms were taking (Aihi, 2011; Guthrie, 2015; Waiko, 1997). Pinar (2012) underscored the idea that teachers must authentically engage with and take ownership of the reformed curriculum. Unfortunately, this situation was not yielding the desired results for teachers in Papua New Guinea, as the confusion surrounding the dual curriculum continued to affect both teachers and students alike.

As outlined in Papua New Guinea's National Education Plan (NDoE, 2020), the plan affirms that teachers should be seen and promoted as cultural leaders who use teaching methods that resonate with local traditions and values. It was vital to engage in meaningful dialogue with education authorities, and to also hear from teachers —the immediate implementers of the curriculum to create an assessment framework which reflected Papua New Guinea's cultural values while integrating global perspectives.

This balanced approach was essential for sustainability and for preparing students to become global citizens locally, empowering them to make transformative changes in their lives as suggested by Giroux (1985). Therefore, Papua New Guinea must come together to address urgent educational challenges, as education is key to improving the lives of its people. In this fast-paced world, staying relevant is crucial; we cannot afford to be left behind (Devette-Chee, 2021b). The education system had undergone

significant changes over the years, primarily due to the impact of colonisation. Now, more than ever, we need to focus on comprehensive education that supports whole-person development, aligned with our philosophy of living purposefully and creatively for a better Papua New Guinea and contributing to the global community, as noted by Matane (1986).

Critiques from the analysis

Freire's (1970, 1973) pedagogy of the oppressed and critical theory emphasised the importance of equality in education, where all voices were fairly represented to foster learning and achieve both short-term and long-term educational goals, ultimately serving humanity in the world. Inclusive and encouraging decision-making that benefits everyone, promoting individual engagement and prosperity. Freire argued that education and its reforms were the ideal place to exercise democratic rights, regardless of gender, age, ability, and race, where everyone was educated and elevated. Moreover, Freire's perspective was practical in countries, offering a way to understand how cultural heritage and Indigenous languages could be incorporated into the education system, allowing students to fully engage in lessons using their native languages and cultural contexts, thereby demonstrating fairness.

In countries like Papua New Guinea, where cultural heritage was less well preserved, it was primarily oral and not fully covered in schools because there was no written cultural heritage. The limited use of Indigenous languages in education was similar to that in other Indigenous cultures, which drove unfairness (Archibald, 2007; Atleo, 2009; Benson, 2003).

Papua New Guinea is at a disadvantage because none of the 800 languages is documented, making it unlikely to become a national language of instruction—a sad reality. Gay (2010) and other scholars, including those who informed my theoretical frameworks, encouraged the need for authentic assessment, promoting a culturally inclusive student-centred approach, which is a framework worth exploring further in Papua New Guinea. This was not the reality in my study; students were generally disengaged, although students at Kofaik Primary School participated, albeit minimally. Students at Samill Primary School did not fully participate, making the promotion of student-centred lessons problematic. International scholars (Gay, 2010; Monteiro et al., 2021; Wilson, 2021) suggested that using student-centred lessons as a means of

conveying knowledge to students through collaboration and inclusion was vital in driving and achieving curriculum goals. These approaches played a crucial role in transforming a student's life within the school system by linking familiar concepts to unfamiliar real-life experiences (Farren, 2015; Giroux, 1985; Ladson-Billings, 1995; Pinar, 2012). As noted in Chapter 7 of the analysis, teachers' transition was challenging, and it would take some time for proper awareness to be raised about the usage of the curriculum before they could accept the new standards-based curriculum and implement it accordingly.

Taken together, the findings show that improving assessment practice in Papua New Guinea primary schools will require more than technical training in test design. It will demand coherent curriculum policy, equitable resourcing, sustained professional learning that builds teachers' theoretical and practical assessment literacy, and explicit support for bilingual, culturally relevant assessment practices. Without these systemic changes, teachers will remain caught between policy expectations for formative, data-informed assessment and the realities of teaching in linguistically diverse, under-resourced classrooms.

Summary

Teachers perceive assessment as a process of collecting and analysing students' scores through both formative and summative evaluations. A significant issue impacting teachers' understanding of assessment was the lack of English comprehension among both students and teachers, which significantly undermined the effectiveness of assessments in primary schools. Teaching English at this level presented its own set of challenges; teachers often struggled with the subject matter, while students found it difficult to grasp both the language and its content.

For students to truly learn through formative and summative assessments, the English material presented must be both relevant and accurate. If the content is mis-taught or improperly assessed, it can lead to long-term issues with English fluency. Teachers who lack familiarity with the material tend to teach based on their personal understanding and assess accordingly, which is not ideal. This approach can result in students absorbing incorrect information, believing it to be right, and continuing to practice these errors until they eventually recognise the mistakes made by their teachers later in life.

By acknowledging cultural elements, teachers should focus on enriching assessments and instructional strategies based on the five phases of the data-informed pedagogical cycle to provide guidance. Furthermore, it is recommended that teachers seek to upgrade their qualifications to teach English more effectively, which in turn will help develop students' critical thinking and reasoning skills. Engagement between teachers and students should be enjoyable, meaningful, and reciprocal, fostering a learning environment that feels collaborative rather than one-sided. Once the barriers to acquiring English language skills are removed, all elements of the data-informed pedagogical cycle will flourish, resulting in transformative improvements in educational standards and literacy rates.

The National Department of Education faces significant challenges ahead in developing strategies and improving education quality, particularly in addressing the dual education system, curriculum, and medium of instruction in schools, which require urgent attention to raise educational standards and assessments in Papua New Guinea.

In Chapter 9, the final chapter of the study, I present the study's conclusions. This chapter not only underscores the study's limitations but also proposes recommendations to enhance assessment practices across various organisations.

Chapter 9

Conclusion, recommendations, and suggestions for new research

Endings: Now what?

Driven by my passion for improving education for primary school students in Papua New Guinea, I arrived in Australia, in 2022, a country I had only known through the media, to commence this study, leaving behind my loved ones and the familiarity of belonging I had back home. I adopted a new identity as a PhD student and enrolled at Victoria University. I spent the last four years, from 2022 to 2026, immersed in new and inspiring experiences that both thrilled and overwhelmed me and changed my perspectives on how teachers and students should embrace the learning process as a stepping stone to a better future, one that involves eliminating poverty and living a decent life in Papua New Guinea.

The teachers' encounters in this study resonate with my own learning experiences. I was a recipient of a top-down approach, that forced teachers to implement a curriculum in whose development they had not been involved.

In 1995, the National Department of Education instructed teachers to either upgrade their qualifications to a Diploma in teaching outcomes-based curriculum or leave the profession. This instruction proved provocative, I began upgrading my qualifications, progressing from a Primary School Certificate holder to a Master's. My upgraded qualifications made me unfit for primary school teaching, and I left primary school classrooms that once significantly shaped my emotional and physical maturity to teach at tertiary institutions.

The study's impacts on Papua New Guinea

The uniqueness of this study lies in the cultural, historical, and political contexts of Papua New Guinea, as there is a notable lack of research on teachers' perceptions of assessments and their impact on students' learning. The methods I used in this study have afforded an in-depth understanding of teachers' experiences of conducting assessments. As I listened to their narratives during the fieldwork in 2023, their dialoguing in Tok Pisin and English, while performing the planned activities and working to achieve the intended outcomes, was informative, and I came to discern how

the participating teachers needed more background knowledge and skills to effectively conduct assessments *as* learning in their daily lessons.

As a result of conducting interviews and lesson observations with the four Grade 6 teachers, Noko and Rami from Samill Primary School and Waka and Kavi from Kofaik Primary School, I identified that the practical application of measuring students' learning is not a stand-alone process. What I observed in the classrooms is supported by international research on assessments (Ara & Saeed, 2020; Black & Wiliam, 2018; Monteiro et al., 2021; Rashid & Jaidin, 2014; Webb & Jones, 2009), which acknowledges the fact that assessments unfold differently in various education systems worldwide. However, we must consider the context: as Papua New Guinea, in a developing country, there are significant disparities in assessment practices compared to developed countries. In Papua New Guinea assessment practice is characterised by an over-reliance on tests. It was evident through lesson observations and analysed documents that improvement is required for the standards that the Papua New Guinea National Department of Education is expecting to meet its vision 2050 goal of achieving quality education for all (NDoE, 2020; NDoE, 2010a).

Data-informed assessment practices are necessary to improve learning

International research reported that teachers are implementing data-informed pedagogy as a tool to improve teaching and learning (DoE, NSW, 2017; Datnow & Park, 2014; Makovec, 2018), which significantly improved student learning. My study applies a five-phase data-informed pedagogy model, which appears as Figure 1.1 in Chapter 1 and as Figure 9.1 below. It signifies the use of assessment data as a teaching strategy to improve teaching and learning in Papua New Guinea.

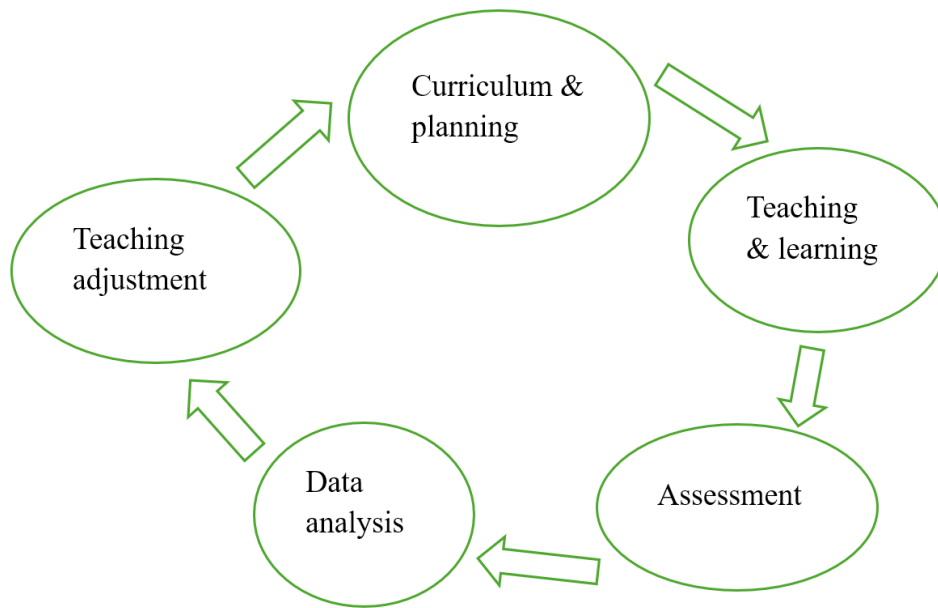


Figure 9.1 Data-informed pedagogy: five-phase model

Based on and derived from the Department of Education (DoE), New South Wales (NSW), 2025

Teachers in my study reported that they had not been fully aware of this strategy until the study highlighted the importance of using assessment data to improve teaching and learning. It was noted that they had been using it subconsciously as a means of improving instructional practices until this study made them consciously aware of its significance, which went beyond what they assumed. The frequent use of data-informed pedagogy would provide a clear pathway for teachers to conduct assessments effectively. It was evident that teachers required knowledge and information about the approaches taken in the data-informed pedagogical cycle (see Figure 9.1).

Datnow and Hubbard (2016) have reported how data-informed decisions empowered teachers to take ownership of ensuring that assessments improve learning, creating a meaningful link and fostering appreciation, as teachers and students became co-partners in the teaching, learning, and assessment process. Both teachers and students have significant roles and responsibilities to play within the data-informed pedagogical cycle, which unfolded when they participated in learning in line with the cycle's expectations to plan, teach, and assess effectively. Their immediate engagement with the data-informed pedagogical cycle reinforced and stimulated learning that built on collaborative trust and fostered creativity. This engagement can enrich the beauty of

cultural knowledge in lesson outcomes that are meaningfully supported by data (Datnow et al., 2007).

Participatory action research led to situated knowledge creation

The theoretical perspectives of my study suggest that creating meaningful dialogues between different parties should be directed toward transformative changes and growth (Freire, 1970; Giroux, 1985; Ladson-Billings, 1995; Pinar, 2012), particularly given the context of Samill and Kofaik Primary Schools in Papua New Guinea. Participatory action research and action-oriented activities proved necessary for the two case studies (Kindon et al., 2008; Oliveira, 2023) to facilitate better conversations between teachers and students, leading to improved curriculum decision-making. Teachers should work with students to identify the types of assessment, either formative or summative, to evaluate learning. Although students' voices are not the focus of this study, they have a responsibility for their own learning and play a part in improving it. Thus, the methods used in assessment should reflect the student's culture, such as oral presentations, meaningful observations, and imitations of experiences introduced by the curriculum.

The quality of learning determines the outcome, and assessments are reflected in the marks that individual students receive. The data-informed pedagogical cycle (Figure 9.1) sets the foundation for new knowledge identified in this study. This is when the five phases of the cycle are effectively implemented using language rooted in students' real-life experiences and engaging in appropriate dialogue when formative and summative assessments are conducted in schools, thereby using culturally relevant teaching approaches. Student authenticity is demonstrated when teachers drive changes to improve learning in the reformed curriculum in Papua New Guinea.

Recommendations based on implications to beneficiaries and application

The findings of this study have practical implications for various individuals, the government and its agencies, the National Department of Education, and non-governmental organisations involved in education. The impact of teaching and learning is noticeable and affects the immediate educational needs of both teachers and students, with implications for assessment. By collaborating to share knowledge and resources, various stakeholders can promote efficiency in teaching and learning, ultimately aiming to achieve the broader educational goals for Papua New Guinea. Based on the key

findings, I make recommendations to teachers, schools/boards of management, teachers' colleges, the government of Papua New Guinea, and its agencies, the National Department of Education and non-government organisations such as World Vision, Save the Children, and United Nations International Children's Emergency Fund and World Bank.

Recommendations to teachers

The findings illustrated that teachers needed to come out and be proactive in enrolling in courses that enhance their knowledge of teaching in English. The study also demonstrated that teachers needed to gain knowledge of assessment as learning; however, this aspect of assessment was written and explained in the teachers' guides, and teachers still required an understanding of what it entailed. Teachers need to step out of their comfort zones and venture into areas that will broaden their knowledge by engaging in their own professional improvement. Teachers should often reflect on their teaching and prepare exciting lessons, creating student-centred learning experiences informed by the data-informed pedagogical cycle. This required teachers to be proactive and creative, utilising their imagination to design culturally significant lessons and assessments.

Recommendations to the schools / board of management

One factor affecting assessment is the dualism in curriculum and educational structure, which has implications for schools. Schools should ensure that adequate, standards-based curriculum materials are in place, and that annual stocktakes are conducted, aligning teachers' teaching and assessments with the standards-based curriculum. The abolished outcomes-based curriculum material should be used as an additional resource, not a teaching guide. All teaching should be aligned with a standards-based curriculum. The schools should liaise with the government to establish a fixed education structure of 1-6-6, as this is the ninth year of its implementation. The outcomes-based education structure was abolished in 2016 and should not be in operation. Schools should provide libraries with appropriate reading materials to enhance students' reading skills and help them learn English through reading.

Recommendations to the teacher training institutions

It was evident that the four teachers did not conduct assessment *as learning* and lacked knowledge of assessment as a teaching pedagogy. The knowledge of the data-informed pedagogy cycle was lacking. The data-informed pedagogical cycle should be addressed sufficiently and accurately, bringing its importance to the teachers. The element of assessment data as a teaching pedagogy should be discussed, aligning it well with the data-informed pedagogical cycle. This should be accommodated across multiple subject strands in teacher colleges, for a better grounding of the concept among teachers. The teachers' college curriculum needs upgrading, including the incorporation of culturally relevant pedagogy and recognising teachers as cultural workers in the teacher training curriculum. This approach should also involve teaching that speaks out, so that teachers are aware of their role as cultural workers when implementing the Papua New Guinea school curriculum.

As identified in this study, student-centred lessons were invisible. There were no interactions between teachers and students, and vice versa, and lessons were not reciprocal. Therefore, proper measures should be considered to help make lessons reciprocal through an effective cultural lens. More emphasis should be placed on lesson planning and programming as a crucial and ongoing foundation for developing and delivering practical lessons. A lack of lesson planning creates a breakdown in the lesson sequence, leading to confusion, and students do not learn effectively. Teachers' college lecturers should actively participate in/contribute to the teacher professional development activities for in-service teachers in the provinces. In the 21st century, lecturers must upgrade their qualifications to a PhD to teach in teacher training institutions.

Recommendations to the government of Papua New Guinea and its agencies, the non-government organisations

Although teachers can administer assessments, internal and external factors may influence assessment practices. For instance, the location of schools, state of classrooms, socio-cultural issues, medium of instruction (English), teacher-centred lessons, teacher preparedness to teach, student preparedness to learn, education reform (dualism in educational structure/curricula), and teachers and students transitioning from the previous curriculum to a reformed one. The data clearly show that more is

required to efficiently conduct assessments in Papua New Guinea schools, considering new approaches from both cultural and global perspectives. This question warrants further investigation by Papua New Guineans before we engage in blind arguments and instigate another education reform. Government and policymakers should consider improving the teaching and learning within a dual curriculum and education structure. This reality has affected the whole assessment process. This is a setback for achieving a transformative quality education for Papua New Guinea students. The government, through the National Department of Education, should immediately consider making the necessary changes to integrate the standards-based curriculum into the education structure 1-6-6. The government should develop and disseminate sufficient curriculum materials to all schools, making the curriculum accessible. This will significantly impact the entire assessment process. The National Department of Education should provide opportunities for teachers and students to have their voices heard in curriculum decision-making. The National Department of Education should regularly conduct professional development activities for national teachers to update them with the latest knowledge and information about curriculum changes and expectations.

A significant finding of this study is the need to review of the teachers' college curriculum and the implementation of teacher professional development by National Department of Education to meet their plan for systematically organised assessments for Papua New Guinea schools. The National Department of Education by proactively organising and facilitating yearly in-services/ professional development for teachers, that is meaningful, strategically planned, and effectively implemented to meet their needs.

The National Department of Education and non-governmental organisations, by collaborating with teacher training institutions and involving them in the implementation of educational changes, can situate teachers' colleges and universities as primary agents of change responsible for implementing educational changes in the broader community of Papua New Guinea.

Limitations to the study

On reflection, I have identified the following limitations.

Although the participatory action research approach encouraged teachers to be co-researchers who contributed to knowledge in this study, their participation came with

reservations. Reservations included a lack of confidence to contribute constructive ideas about lesson planning and assessment construction, inconsistent commitment to participate and limited communication when teachers were unavailable to attend teaching sessions and interviews.

My role as a teacher educator and former primary teacher was an influential factor inhibiting the teachers' ability to express their thoughts meaningfully during lesson reflections, despite my best intentions. I felt dominant in all the discussions, and it took time for the participants to contribute confidently during the interviews, expressing their insightful thoughts about the implications of assessment on their practice. I concluded that lesson observations put pressure on teachers. Three out of the four teachers produced incomplete lesson plans in one or two lessons, and all were unwilling to discuss their draft plans before teaching, as step 1 of the participatory action research suggested. Teachers claimed they had no time for pre-conferencing, even though I was available. While observing lessons, some students were embarrassed and uncomfortable and did not respond well to their teachers.

The contexts of the schools and the study significantly impacted the quality of the observed lessons, teacher preparation, and students' learning potential. The study would have been different if it had been conducted in Port Moresby, the capital city of Papua New Guinea, where most students are exposed to the English language and modern changes taking place today.

The literature about the use of the English language in Papua New Guinea during the colonial era was written from the white man's perspective, which can be biased in some ways. Papua New Guinea researchers need to conduct further research into the impacts of English on Papua New Guinea today to counterbalance discussions of the English Language from both sides and promote balanced views.

To counter the study's limitations, I remained persistent and consistent in my approaches across both schools. With the determination to achieve regardless of challenges, I adjusted as needed. I worked hard to foster loving relationships with teachers, create safe spaces for interaction, and ensure everyone felt comfortable and secure. Using more than one data-gathering method and two different case studies signified a cross-study comparison between teachers and students. The multi-methods used secured surplus data for this study, and the data-gathering methods were well

administered, and all planned data-collection activities were completed. Although I was a novice researcher, I trusted my insights and intuitions, which guided me in making informed decisions throughout the research process, including examining, evaluating, and re-evaluating my decisions. The success of my study/fieldwork depended on my ability to plan effectively, to listen to and read between the lines of my supervisors' recommendations, to engage in additional readings, to maintain daily reflections and to cultivate self-awareness.

Way forward and future research

To understand the implications and limitations of this study, future studies can be conducted to address some of the factors. The following four suggestions were derived from this study.

The investigation revealed that mastering the English language is a crucial prerequisite for teaching and learning in Papua New Guinea. Based on this, future research should explore the effectiveness of language development programs in enhancing the language knowledge and skills of primary school teachers and students. Research should also aim to broaden understanding of the effectiveness and efficiency of English as a medium of instruction and how it can be improved to accommodate Papua New Guinea's cultural and language diversity.

The current use of formative and summative assessments should be examined in-depth within the data-informed pedagogy model to ensure that teachers provide meaningful, authentic assessment guidance when collecting data. Additionally, investigate how teachers utilise assessment as a teaching method, considering the pre-service teachers' curriculum in order to enhance the quality of programs for English instruction in primary schools.

Another vital suggestion is to listen to the students' perspectives on assessment and how they would like assessments to be conducted in preparation for their lives after school.

Since this study involved only four Grade 6 teachers and their students, it would be beneficial to conduct a similar study in different contexts, with different research designs, questions, and methods, such as a survey with a larger sample. From an outsider's perspective, it could be expanded nationwide to gather a collective view of

teachers on the types of assessments used in various schools across provinces. This would be categorised by region: Highlands, Momase, New Guinea Islands, and Papuan.

Now to the conclusions.

Concluding remarks

With gratitude, I reflect on the theoretical positioning chosen for this study. In choosing the theoretical perspectives for my study, my supervisor assisted in suggesting the theories, critical theory envisioned in the pedagogy of the oppressed, culturally relevant pedagogy, and critical transformative paradigm observing teachers as cultural workers (Freire, 1970, 1973; Gay, 2010; Giroux, 1985, 1997; Ladson-Billings, 1995, 1994; Villegas & Lucas, 2007). At that time, I had a limited understanding of these theories, and during the initial proposal stage, I conducted extensive reading and writing. However, I had many questions trying to frame my work so that it sat well with the theories. Throughout the thesis writing journey, I questioned where the theories were taking me. Confusion overwhelmed me at various stages of the writing process until I wrote the discussion chapter, led the conversation, theorised, and integrated all the research themes supported by the literature, I realised how effectively the theories underpinned my study. Bringing in the theoretical perspectives to discuss the findings was eye-opening. I can now look at assessment through the lens of cultural pedagogy and the transformative paradigm, where everyone is heard and represented in authentic assessments.

Reflecting on the research questions, I had no intention of providing teacher professional development activities to inform teachers of new knowledge and skills about assessments derived from this study. I do not know whether the professional development activities I plan and provide for teachers in Papua New Guinea will have a significant impact on their professional growth. In pursuing this PhD, my intention was to make a significant impact on how teachers in Papua New Guinea can become more effective classroom practitioners. Some people might argue that I have been too subjective, but I am providing a context that opposes objectivity and as Haraway (1986) has argued, knowledge is situated and positioned by individuals within varying contexts and through interactions with others, rather than being derived from nothing.

To conclude, assessments of all types, both summative and formative, are a crucial aspect of the curriculum in Papua New Guinea. The practical implementation of

assessments requires innovative teachers who can view their outcomes from a critical and transformative lens to drive authentic approaches to challenge students' achievement. This suggests that Papua New Guinea teachers should be innovative in creating assessments that relate to students' real-life experiences, with a focus on a changing cultural context. Students' full potential is then put to the test when they engage in higher-order assessments, and by achieving their outcomes, they are prepared for real life. In Papua New Guinea, a developing country, the government will continue to work hard to achieve its Vision 2050 goal of providing quality education for its citizens through a quality curriculum, qualified teachers, and quality assessment in primary school teaching. I hope this study represents a step forward in helping Papua New Guinea achieve its Vision 2050 goal in education.

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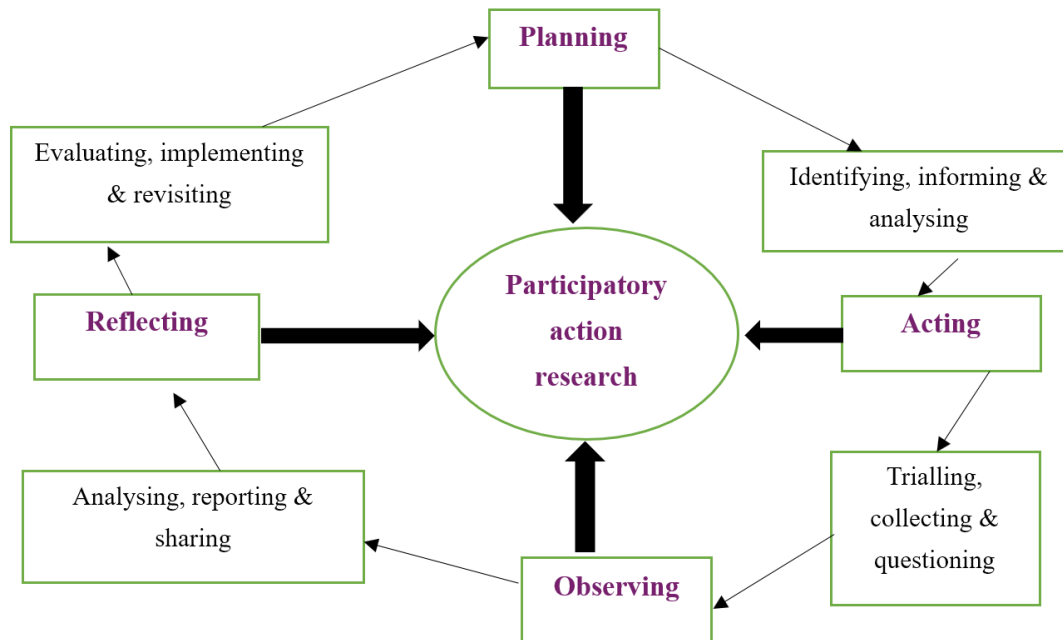
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Appendix A The participatory action research cycle



Appendix B

Questions for semi-structured interviews

Subject: English		
Topic	Questions for teachers	Answers
a) General assessment definition	1) What is your perception about using differing types of assessment in teaching and learning? a) What is assessment? b) What is formative assessment? c) What is summative assessment? d) Why do you use these assessments in you teaching? e) How and when do you plan for these assessments? f) What you do at the end of the assessment period? g) What other assessment types are you familiar with? h) How do you use the forms of assessment in teaching? i) When do you use these assessment types in teaching? k) Which assessment type are you comfortable with and why?	
b) What to assess	2) How does the application of differing types of assessment affect student learning in PNG primary schools? a) What do you assess in English in different situations/lessons? b) How and when do you record their marks? c) How do the assessment types affect student learning? d) How do you know that students learn? e) What do you do with students marks? f) When do assessment affect student learning? g) How do you help students learn? h) How do you mark and record students marks?	

Subject: English		
Topic	Questions for teachers	Answers
	i) Which assessment type demonstrates that student learn well and why? k) When do you provide feedback to students?	
c) The intent of assessment	3) What existing assessment methods do you apply to review student learning and how do they utilise this data in their teaching? a) Why do you assess your Grade 6 students? b) What is the need for assessing English assessment? c) What are the assessment methods used to assess students? d) What assessment methods are you familiar with? e) Why do you use this assessment method in your teaching? f) Are there any other methods you can use apart for the familiar ones? g) What assessment methods best assess students' learning? h) When creating assessment tasks do you consider students' needs? i) What assessment method best suits the students' needs? j) What assessment methods are balanced and meet the needs of all the students? k) Do you sometimes get students opinions when designing assessment, them? Why? Assessment data a) What do you know about assessment data? b) How do you use the assessment data in your teaching? c) What does the assessment data tell you about the students? d) How do you use assessment data to improve your teachings? e) How do assessment data helps improve	

Subject: English		
Topic	Questions for teachers	Answers
	student learning? f) How does assessment data affect your teaching/student learning? g) Why is assessment data important in teaching and learning? h) How do you acknowledge student achievement? j) Are you aware that assessment data is a teaching pedagogy? k) How do you show that assessment data is important as a teaching pedagogy?	
d) Assessment process	1. Who does the assessment? 2. When do you assess? 3. Why do you collect assessment data?	
e) Use of the information from assessment	1. How can you and your students use the information from different assessment tasks? 2. How do you evaluate your teaching? 3. At the end of the semester, what factors do you consider when assessing your students?	
f) Use of teacher professional development (TPD)	4. How can professional development assist you to improve assessment practices? a) What do you know about TPD? b) How can TPD help you improve your assessment practices? c) How many TPD sessions have you had so far? d) What can you say about that TPD, what was is it about and how did it contribute to improve your teaching performance? e) Why is TPD important to you and your profession? f) What type of TPD activity would you consider necessary to improve assessment practice? g) How can you and the school contribute to TPD? h) What curriculum areas should you	

Subject: English		
Topic	Questions for teachers	Answers
	consider TPD to address in the future? i) Who facilitates TPD in your school/province? j) Do you think it is important to have frequent TPD sessions and why? k) What is your opinion about having a well-coordinated TPD program at your school/the province?	

Prompts to be used to get more information:

Tell me more about.....?

Why did you say that.....?

Can you explain/clarify.....?

What do you mean by that....?

What is an example of?

How do you feel about....?

In what ways.....?

Why is it.....?

How is it....?

Appendix C Lesson observation checklist of items

Cycle 1: Step 3: Observation		
Subject: English		
Dimensions	Categories	Answers
1. Who evaluates	1.1 Teacher assessment 1.2 Peer assessment 1.3 Self-assessment 1.4 Summative/formative assessment 1.5 Understanding the form of assessment.	
2. Who initiated the oral interactions	2.1 The teacher, by asking questions 2.2 The students, by asking questions or making statements to obtain feedback	
3. Oral questions: who is questioned	3.1 Almost all students are questioned 3.2 A few students (mostly the same ones) are questioned	
4. Use of assessment data	Encourage student learning Improve teacher performance For future student academic progression Improve student learning	
5. Type of assessment and assessment tools	5.1 Formative/as/in/for learning 5.2 Summative 5.3 Assessment tools	
6. Level of cognitive complexity	6.1 Low-remember (focus on retrieving relevant knowledge from the long-term memory) and understand (focus on clarifying, recalling, naming, and listing) 6.2 High-apply (focus of prior knowledge to solve a problem), and analyse (focus on carrying out a procedure in a given situation) and evaluate (focus on making judgements based on criteria and standards)	

Cycle 1: Step 3: Observation		
Subject: English		
Dimensions	Categories	Answers
7. Oral and written feedback	7.1 Feedback at the self-level (praise or criticism without task related information) 7.2 Feedback at the task and product level (corrective feedback, pointing out errors or providing correct forms) 7.3 Feedback at the process level aimed at the processes used to complete the tasks (Clarification, hints, suggestions for the future, or asking for explanations) 7.4 Feedback at the self-regulation or conditional level, which engages students' skills in self-evaluation (encouraging self-assessment)	
8. Teacher preparedness	8.1 Teacher was prepared for the lesson 8.2 Teacher centred lesson presented 8.3 Teacher prepared for all levels of students 8.4 Teacher encouraged all students to learn 8.5 Teacher knew the type of assessment used 8.6 The method used was appropriate and balanced for every child.	
9. Student preparedness	9.1 Student was prepared for the lesson/assessment 9.2 Student knew their assessment results 9.3 Student did well in the assessment 9.4 Students were involved in the lesson 9.5 Students took responsibility for their own learning/assessment.	

Appendix D Teachers' document analysis: checklist of items

English lesson/activity plan

Category	Guided questions	Answers
a. Lesson plan	a.1 Was the lesson well sequenced? a.2 Was the lesson objective clear? a.3 Was the lesson objective relevant?	
b. Teaching content	b.1 Was the subject content relevant to the grade level? b.2 Were the explanations clearly stated? b.2 Were examples/illustrations provided?	
c. Student participation	c.1 Was the lesson involving? c.2 Was it individual or collaborative? c.3 Was the lesson interactive and student centred? c.4 Did the students participate well? c.5 Had students asked questions?	
d. Assessment process	d.1 Was the task stated in the lesson plan? d.2 Was the assessment task clearly explained? d.3 Was the task practical and hands on? d.4 Was the teacher fair in assessing students? d.5 Did most students do well? d.6 Did the teachers assist students with the task? d.7 Were the marks recorded? d.8 Had the teachers used the assessment data to encourage students? d.9 Had the assessment data give information to teacher or students?	
e. Teacher preparedness/ involvement	e.1 Was the teacher prepared for the lesson/assessment? e.2 Were there teaching and learning aids provided?	

Category	Guided questions	Answers
	e.3 Did the teacher know the subject content? e.4 What were the teaching strategies used? e.5 Had the teacher done well after the reflections? e.6 Is there a need for more lesson reflections?	
Researcher makes general reflective comments		

Appendix E Student document analysis: checklist of items

Category	Guided questions	Answers
a) Student understanding	a.1 Did the student understand the lesson? a.2 Was the lesson exciting for the student? a.3 Was the lesson building on from the known to unknown? a.4 Was the subject content relevant to the grade/student level? a.5 Did the student answer all the questions? a.6 Were examples/illustrations provided? a.7 Was the lesson involving? Was it individual or collaborative? a.8 Was the lesson interactive and student centred? a.9 Did the students participate well? a.10 Had students asked questions?	
b) Assessment process	b.1 What was the assessment type? b.2 Did the student understand the activity? b.3 Was the task practical and hands on? b.4 Did the student do well? b.5 What is the assessment data? b.6 What information does the assessment data represent? b.7 How would the student use the assessment data?	
c) Student preparedness/involvement	c.1 Was the student prepared for the lesson? c.2 How did the student contribute to the lesson? c.3 Did the student know the subject content? c.4 Is there a need to improve student interest and motivation? c.5 How would that improvement take place? c.6 Was the activity book neat and tidy? c.7 Was the handwriting legible?	

Category	Guided questions	Answers
	c.8 Has the teacher been constantly check on the students' workbooks? c.9 How has the teacher been checking on the students' workbooks?	
Researcher makes general reflective comments		

Appendix F Letter to the provincial education advisor, East Sepik Province

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6 October 2022

The Education Advisor
East Sepik Education Authority
Wewak 531
East Sepik Province
PAPUA NEW GUINEA

Dear Education Advisor

Request for permission to conduct research in primary schools in East Sepik Province

I am a Papua New Guinean student enrolled in a four-year Doctor of Philosophy program at Victoria University in Melbourne, Australia. As part of the program, I need to undertake research in PNG. To this end, I am seeking permission to conduct research in primary schools in East Sepik Province, specifically at Kreer, which serves as an example of an urban school, and at Kunjingini in the Wosera District, which serves as an example of a rural school. I hope to conduct this phase of my research from March to August 2023.

My thesis topic is Primary school teachers' perceptions about the differing types of assessment to improve student learning in primary classrooms in Papua New Guinea. As an experienced teacher educator of pre-service primary school teachers, I have a keen interest in understanding assessment practices in schools and identifying the effects of assessment on student learning. Upon completing my PhD, I believe that my findings will contribute to improving assessment practices in primary schools in Papua New Guinea. I would therefore provide you with a summary of my conclusions, which I believe will offer insights into the practice of teaching and learning, assessment practices, teacher and student preparedness, staff relationships, school support, policymaking, and teacher qualifications.

I intend to interview four Grade 6 teachers, two from each school. Their students will also be involved when I collect samples of documents such as student activity books, samples of assessment tasks and conduct classroom observations. The data collection will take six months, as I will spend three months in each school. During the data collection process, I will make every effort not to cause any inconvenience or disruption to the schools' programs and

activities. I will abide by the school's regulations and follow the routines established by the school, particularly those that apply to the classes directly involved in my study.

All information will be kept strictly confidential. I will use pseudonyms to ensure that the schools and participating individuals remain anonymous. The research will adhere strictly to Victoria University's Ethical Conduct in Human Research and Related Activities Regulations, which can be obtained by emailing researchethics@vu.edu.au. If you require any more information on ethics considerations, please contact:

The Ethics Secretary
Human Research Ethics Committee
Office for Research
Victoria University
PO Box 14428
Melbourne VIC 8001
Australia
Telephone: + 61 3 9919 4781 or + 61 3 9919 4461
researchethics@vu.edu.au

My research project is under the supervision of Associate Professor Mark Vicars (my principal supervisor) and Dr Greg Neal (my associate supervisor), both at Victoria University. If you have any queries, they can be contacted at:

Mark.Vicars@vu.edu.au
Telephone: + 61 3 9919 2052
Greg.Neal@vu.edu.au

I look forward to receiving your response to my request to conduct research in schools managed by the East Sepik Education Authority.

Yours sincerely



Erita Yawi

CC: School Inspectors (Wewak and Wosera); Program Managers (Wewak and Wosera)

Appendix G Letter to the Catholic education secretary, East Sepik Education Authority

Erita Yawi
PhD Research Student
Victoria University
101 Ballarat Road
Footscray VIC 3011
AUSTRALIA
Email: erita.yawigabby@live.vu.edu.au
or
eritayawi@gmail.com
Telephone: Australia: + 614 0466 99 3032
PNG: + 675 7229 9920

6 October 2022

The Catholic Education Secretary
East Sepik Education Authority
Wewak 531
East Sepik Province
PAPUA NEW GUINEA

Dear Catholic Education Secretary

Request for permission to conduct research in primary schools in East Sepik Province

I am a Papua New Guinean student enrolled in a four-year PhD program at Victoria University in Melbourne, Australia. As part of the program, I need to undertake research in PNG. To this end, I am seeking permission to conduct research in primary schools in East Sepik Province, particularly at Kunjingini in the Wosera District, as an example of a rural school. I hope to conduct this phase of my research from March to August 2023.

My thesis topic is *Primary school teachers' perceptions about the differing types of assessment to improve student learning in Papua New Guinea*. As an experienced teacher educator of pre-service primary school teachers, I have a keen interest in understanding assessment practices in schools and identifying the effects of assessment on student learning. Upon completing my PhD, I believe that my findings will contribute to improving assessment practices in primary schools in PNG. I would therefore provide you with a summary of my conclusions, which I believe will offer insights into the practice of teaching and learning, assessment practices, teacher and student preparedness, staff relationships, school support, policymaking, and teacher qualifications.

I intend to interview two Grade 6 teachers from Kunjingini Primary School. Their students will also be involved when I collect samples of documents such as student activity books, samples of assessment tasks, and conduct classroom observations. The data collection will take six months, as I will spend three months in each school. During the data collection process, I will make every effort not to cause any inconvenience or disruption to the schools' programs and activities. I will abide by the schools' regulations and follow the routines established by the schools, particularly those that apply to the classes directly involved in my study.

All information will be kept strictly confidential. I will use pseudonyms so that the schools and the participating individuals remain anonymous. The research will adhere strictly to Victoria University's Ethical Conduct in Human Research and Related Activities Regulations, which can be obtained by emailing researchethics@vu.edu.au. If you require any more information on ethics considerations, please contact:

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Victoria University
PO Box 14428
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researchethics@vu.edu.au

My research project is under the supervision of Associate Professor Mark Vicars (my principal supervisor) and Dr Greg Neal (my associate supervisor), both at Victoria University. If you have any queries, they can be contacted at:

Mark.Vicars@vu.edu.au
Telephone: + 61 3 9919 2052
Greg.Neal@vu.edu.au

I look forward to receiving your response to my request to conduct research in Kunjingini primary school managed by the Catholic Education Secretariate.

Yours sincerely



Erita Yawi
CC-School Inspector Wosera; Program Manager Wosera

Appendix H Letter to the head teacher, Kofaik Primary School

Erita Yawi
PhD Research Student
Victoria University
101 Ballarat Road
Footscray VIC 3011
AUSTRALIA
Email: erita.yawigabby@live.vu.edu.au
or
eritayawi@gmail.com
Telephone: Australia: + 61 0466 99 3032
PNG: + 675 7229 9920

6 October 2022

The Head Teacher
Kreer Primary School
Wewak 531
East Sepik Province
PAPUA NEW GUINEA

Dear Head Teacher

Request for permission to conduct research in primary schools in East Sepik Province

I am a Papua New Guinean student enrolled in a four-year PhD program at Victoria University in Melbourne, Australia. As part of the program, I need to undertake research in PNG. To this end, I am seeking permission to conduct research in primary schools in East Sepik Province, particularly at Kreer, which serves as an example of an urban school. I hope to conduct this phase of my research from March to August 2023.

My thesis topic is *Primary school teachers' perceptions about the differing types of assessment to improve student learning in Papua New Guinea*. As an experienced teacher educator of pre-service primary school teachers, I have a keen interest in understanding assessment practices in schools and identifying the effects of assessment on student learning. Upon completing my PhD, I believe that my findings will contribute to improving assessment practices in primary schools in PNG. I would therefore provide you with a summary of my conclusions, which I believe will offer insights into the practice of teaching and learning, assessment practices, teacher and student preparedness, staff relationships, school support, policymaking, and teacher qualifications.

I intend to interview two Grade 6 teachers at Kreer Primary School. Their students will also be involved when I collect samples of documents such as student activity books, samples of assessment tasks and conduct classroom observations. The data collection will take 3 months. During the data collection process, I will make every effort not to cause any inconvenience or disruption to the schools' programs and activities. I will abide by the school's regulations and follow the routines established by the school, particularly those that apply to the classes directly involved in my study.

All information will be kept strictly confidential. I will use pseudonyms to ensure that the schools and participating individuals remain anonymous. The research will adhere strictly to Victoria University's Ethical Conduct in Human Research and Related Activities Regulations, which can be obtained by emailing researchethics@vu.edu.au. If you require any more information on ethics considerations, please contact:

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Victoria University
PO Box 14428
Melbourne VIC 8001
Australia
Telephone: + 61 3 9919 4781 or + 61 3 9919 4461
researchethics@vu.edu.au

My research project is under the supervision of Associate Professor Mark Vicars (my principal supervisor) and Dr Greg Neal (my associate supervisor), both at Victoria University. If you have any queries, they can be contacted at:

Mark.Vicars@vu.edu.au
Telephone: + 61 3 9919 2052
Greg.Neal@vu.edu.au

I look forward to receiving your response to my request to conduct research at your school.

Yours sincerely



Erita Yawi

CC: Senior Teacher Senior Primary

Appendix I Letter to the head teacher, Samill Primary School

Erita Yawi
PhD Research Student
Victoria University
101 Ballarat Road
Footscray VIC 3011
AUSTRALIA
Email: erita.yawigabby@live.vu.edu.au
or
eritayawi@gmail.com
Telephone: Australia: + 61 0466 99 3032
PNG: + 675 7229 9920

6 October 2022

The Head Teacher
Kunjingini Primary School
Wewak 531
East Sepik Province
Papua New Guinea

Dear Head Teacher

Request for permission to conduct research in primary schools in East Sepik Province

I am a Papua New Guinean student enrolled in a four-year Doctor of Philosophy program at Victoria University in Melbourne, Australia. As part of the program, I need to undertake research in PNG. To this end, I am seeking permission to conduct research in primary schools in East Sepik Province, particularly at Kunjingini as an example of a rural school, and I hope to conduct this phase of my research from March to August 2023.

My thesis topic is *Primary school teachers' perceptions about the differing types of assessment to improve student learning in Papua New Guinea*. As an experienced teacher educator of pre-service primary school teachers, I have a keen interest in understanding assessment practices in schools and identifying the effects of assessment on student learning. Upon completing my PhD, I believe that my findings will contribute to improving assessment practices in primary schools in PNG. I would therefore provide you with a summary of my conclusions, which I believe will offer insights into the practice of teaching and learning, assessment practices, teacher and student preparedness, staff relationships, school support, policymaking, and teacher qualifications.

I intend to interview two Grade 6 teachers at Kunjingini Primary School. Their students will also be involved when I collect examples of documents such as exercise books, samples of assessment tasks and conduct classroom observation. The data collection will take 3 months. During the data collection process, I will make every effort not to cause any inconvenience or disruption to the schools' programs and activities. I will abide by the school's regulations and follow the routines established by the school, particularly those that apply to the classes directly involved in my study.

All information will be kept strictly confidential. I will use pseudonyms to ensure that the schools and participating individuals remain anonymous. The research will adhere strictly to Victoria University's Ethical Conduct in Human Research and Related Activities Regulations, which can be obtained by emailing researchethics@vu.edu.au. If you require any more information on ethics considerations, please contact:

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My research project is under the supervision of Associate Professor Mark Vicars (my principal supervisor) and Dr Greg Neal (my associate supervisor), both at Victoria University. If you have any queries, they can be contacted at:

Mark.Vicars@vu.edu.au
Telephone: + 61 3 9919 2052
Greg.Neal@vu.edu.au

I look forward to receiving your response to my request to conduct research at your school.

Yours sincerely

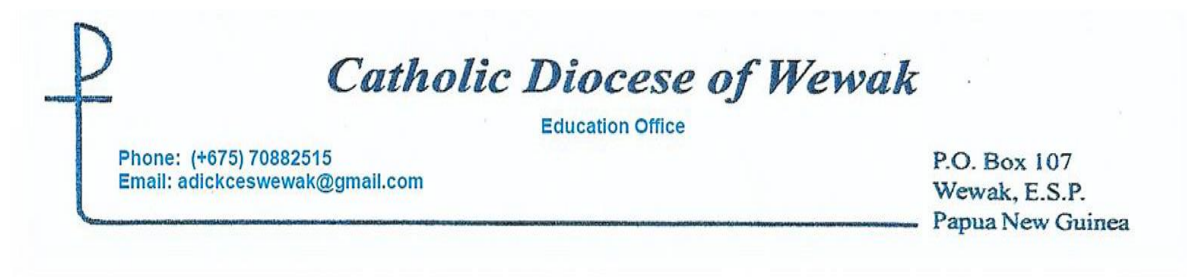


Erita Yawi

CC: Senior Teacher Senior Primary

Appendix J

Letter of response from the Catholic education secretary



31-10-2022

Dear Miss Yawi

Greetings from the Diocese of Wewak- East Sepik Province, Papua New Guinea.

My Pleasure contacting you after receiving your request letter to carry out a RESEARCH using the Catholic Agency Schools.

As someone who has contributed a lot in educating young teachers of this Province and Papua New Guinea at large, I am more privilege to have you to do your research with our Agency schools. Your request is excepted and I am happy to assist you in your research.

As with the latest changes in Education in Papua New Guinea, your research will assist our teachers with new ideas and way of administrating assessments.

Again, I am happy to accept you and will wait your coming. Thank you & God Bless You.

Faithfully Yours

atia

Mrs Anastasia Tia

Catholic Education Secretary

Appendix K Letter of response from Kofaik Primary School



Division of Education
KREER PRIMARY SCHOOL

Email:kreerps19.esp@gmail.com
Mobile: +675 72885449

P.O. Box 502,
WEWAK
East Sepik Province

Date : 3 Nov 2022

Date : 03 October 2022
Erita Yawi
PhD Research Student
Victoria University
101 Ballarat Road
Footscray VIC 3011
AUSTRALIA

Dear Erita

Ref: Request Permission to Conduct Research in Kreer Primary School in East Sepik Province

I acknowledge receipt of your letter dated 6 October 2022.

Your letter requesting permission to do your research has been approved by the school BOM.
We are looking forward to work with you in 2023.

Cheers !

Joan Mellah Kaïen
Deputy Head Teacher
Administration

Appendix L Information to participants involved in research



You are invited to participate

You are invited to participate in a research project entitled exploring teachers' perceptions of assessment on student learning in grade 6 primary classrooms in Papua New Guinea (PNG)'.

This project is being conducted by Erita Yawi a student researcher as part of my PhD study at Victoria University under the supervision of Associate Professor Mark Vicars as my Principal Supervisor and Dr Greg Neal Associate Supervisor from the Institute of Sustainable Industries and Liveable Cities.

Project explanation

The study seeks to explore teachers' perceptions of assessment on student learning in grade 6 primary classrooms in PNG. The study is important as it aims to develop a deeper understanding of the different types of assessment practices utilized by primary school teachers in grade 6 classrooms in PNG. Understanding the functions of assessments from a teacher's perspective in PNG will enable future Teacher Professional Development (TPD). The PNG National Government published PNG Vision 2050 and the National Education Strategic Plan in 2010. These policy documents plan for all aspects of the nation's development includes an aspiration to improve the quality of education by 2050. Improving educational assessment practices which my study is focusing on, would meaningfully contribute to achieving or improving the standards of primary education in PNG as enshrined in the PNG vision 2050 to achieve quality education.

It is important to find out whether teachers are able to undertake assessment as required by the national standards with the current changes in the PNG school curriculum. Unfortunately, the voices of many PNG's primary school teachers may not be sufficiently heard by the Education Departments at the National or Provincial levels. Hence, it is essentially important to listen to teachers' views particularly on different functions of assessments that affect their teaching and student learning. Their stories would enable the Education Departments to consider changes to meet its long-term educational goal of achieving higher standards in primary education in PNG.

The study is guided by one main question and four supporting questions.

Main Question. To what extent do teachers understand how to utilize a range of assessment practices in primary schools to improve student learning?

Sub questions.

1. What is PNG primary teachers' perceptions about using differing types of assessment in teaching and learning?
2. How does the application of differing types of assessment affect student learning in PNG primary schools?

3. What existing assessment methods do PNG teachers apply to review student learning and how do they utilise this data in their teaching?
4. How can professional development assist teachers to improve their assessment practices?

What will I be asked to do?

This is a great opportunity to listen to your views about what you know and understand about student assessment by participating in an individual semi structured interview which will take one hour of your time for four weeks after the official school hour from 3-4pm. All interviews will be tape recorded for analysis. You are requested to teach 4, 30 minutes English lessons for classroom observation for 4 weeks, 1 lesson per week. The 4 weeks and when to teach the lesson will be discussed and agreed upon by researcher and the teacher. The class timetable will be utilised to select day and lesson times. The lessons you presented will be observed by me the researcher. After the lesson observations you and I will reflect on each of the lessons by discussing, sharing ideas and information that would contribute to improve assessment practices in the next lessons. The reflections would take 30 minutes of your time after the students are sent home. In each of the 4 lessons after the presentation I will collect samples of lesson plans, assessment plans, marking criteria and marked assignments from you to show what you have created for assessment and the methods you used to collect marks from your students. Students' activity books, samples of marked assignments and tasks will also be collected to see what the students have been doing for assessment and how much effort they have put into completing the different task.

What will I gain from participating?

You are one of those primary school teachers who is likely to participate in this study that will benefit the many primary school teachers and students in PNG. Your participation and collaboration in this study would bring to light some of the significant insights into the areas of concerns about student assessment that teachers experience while designing and delivering teaching and learning in the classrooms. Your stories will be a sounding board to the PNG Education Department to deliberate on to bring reasonable changes to address assessment issues that leads to improving primary education in PNG. It is anticipated that the findings of this study will provide significant information that can contribute to new knowledge to:

5. help initiate appropriate assessments practices for teachers and students in primary schools in PNG
6. develop the use of evidence-based data in PNG primary schools
7. help primary school teacher training institutions to improve the quality of their teacher training programs focusing on assessment led pedagogies
8. assist the PNG education department to plan for teacher professional development and upgrading of professional skills
9. support the education department and non-government organisations (NGOs) in PNG to negotiate and develop educational changes in the use of a range of assessment practices.

How will the information I give be used?

All data collected from using semi structured interviews, documents and classroom observation is for my PhD thesis written report that I will submit to the Victoria University as a requirement for the completion of my PhD study. The findings are likely to be shared through academic presentations, seminars, and publications in research journals. It is highly likely that I will present my research findings to the PNG Department of Education for their recommendations on future Teacher Professional Development activities for PNG teachers that caters to improving assessment practices. It is possible for me to send a copy of my PhD thesis to your school for reference that can be kept in your school library.

What are the potential risks of participating in this project?

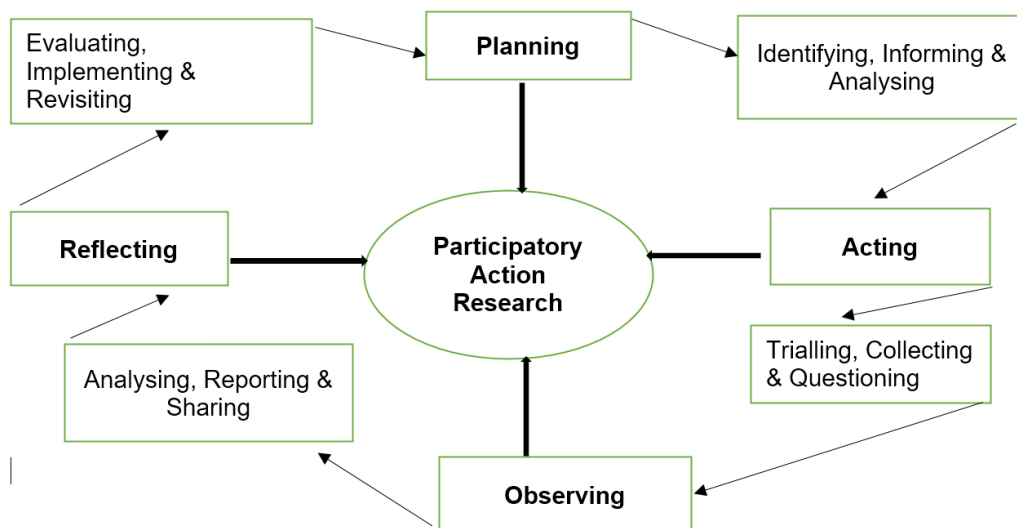
The potential risks in participating in this study is the concern for privacy and confidentiality. You are assured that your personal information is protected and will not be used in whatever means to harm you and your teaching career. You are requested to protect yourselves and others involved in this by not sharing any shared information to anyone outside of the perimeter of this study. Using the data for analysis and reporting your identity will remain anonymous and false names will be used instead of your real names and schools. However, in my study the issues of anonymity and confidentiality would not be guaranteed because there are only two schools and four teachers involved in my study. It is likely that the study will be obvious for the other teachers and the surrounding community to know. Despite this the issue of anonymity and confidentiality is an issue of concern that you all must try to protect yourself and I will protect your privacy to avoid any harm done to you now and in the future.

How will this project be conducted?

The study will be conducted at your primary school and inside a grade 6 classroom. The selected teachers should have a diploma/degree in Primary Teaching and with 10-20 years of teaching experiences either male or female who are committed to the teaching of grade 6 students. You will participate in a Participatory Action Research (PAR refer to the diagram below) whereby you are involved in the study. The research and you are going to work in collaboration, consulting each other when planning the English lessons and reflecting on the lessons after presentation. The research is shared between you and the research as you share your experiences, knowledge, skills, and resources to create new knowledge that would benefit you and other teachers in primary schools of PNG. In the PAR, you will be engaged in a on hour from 3-4pm individual semi structured interviews using a set of interview questions. You are requested to teach 4 different 30 minutes English lessons according to your class timetable. The lessons are to be observed and assessed using a checklist of items. After the lesson observation you and the researcher will reflect upon the lesson for 90 minutes from 3-4:30pm. This will be a collective discussion time where you and the researcher examine the lesson taught and provide meaningful feedback that would create knowledge towards improving assessment practices. Different ways of improving assessment practices would be made that you will implement the change in the next lessons taught out of the 4 English lessons. Teachers and students' samples of

assessment tasks, activity books, lesson plans, assessment plans, marked assignments will be collected for document analysis. A checklist of items will be used to analyse the documents. This is a PAR therefore your contribution to this study is very much valued and respected.

Appendix A: The Participatory Action Research Cycle



Who is conducting the study?

The project will be conducted by PhD student at Victoria University

Erita Yawi

PhD Research Student

Victoria University

101 Ballarat Road

Footscray VIC 3011

AUSTRALIA

Email: erita.yawigabby@live.vu.edu.au

or eritayawi@gmail.com

Telephone: Australia: + 61 0466 99 3032

PNG: + 675 7229 9920

This research project is under the supervision of Associate Professor Mark Vicars (my principal supervisor) and Dr Greg Neal (my associate supervisor), both at Victoria University. If you have any queries, they can be contacted at:

Mark.Vicars@vu.edu.au

Telephone: + 61 3 9919 2052

Greg.Neal@vu.edu.au

Telephone: +61 041738194

Any queries about your participation in this project may be directed to the Chief Investigator listed above. If you have any queries or complaints about the way, you have been treated, you may contact the Ethics Secretary, Victoria University Human Research Ethics Committee,

Office for Research, Victoria University, PO Box 14428, Melbourne, VIC, 8001, email researchethics@vu.edu.au or phone (03) 9919 4781 or 4461.

Appendix M Consent form for participants involved in research

Information to participants

I would like to invite you to be a part of a study into ‘exploring teachers’ perceptions of assessment on student learning in grade 6 primary classrooms in Papua New Guinea (PNG)’.

The study seeks to explore teachers’ perceptions of the different forms of assessment on student learning in grade 6 primary classrooms in PNG. Teachers as the immediate implementers of the curriculum should be better informed and knowledgeable in the designing and delivery of teaching and learning including effective assessment practices that addresses student’s needs. The study is important as it aims to develop a deeper understanding of the different types of assessment practices utilized by primary school teachers in grade 6 classrooms in PNG. Understanding the functions of assessments from a teacher’s perspective in PNG will enable future Teacher Professional Development (TPD). The PNG National Government published PNG Vision 2050 and the National Education Strategic Plan in 2010 calls for quality education to be achieved by 2050 for its people. It is important to find out whether teachers can undertake assessment as required by the national standards with the current changes in the PNG school curriculum. Unfortunately, the voices of many PNG’s primary school teachers may not be sufficiently heard by the Education Departments at the National or Provincial levels. Hence, it is essentially important to listen to teachers’ views particularly on different functions of assessments that affect their daily teaching and student learning. The findings derived from their stories would enable the Education Department to consider changes to meet its long-term educational goal of achieving higher standards in primary education in PNG.

The potential risks associated with this project are informed consent, anonymity, and confidentiality. You are assured that your privacy and personal information will be protected using pseudonym made up names in the data analysis and in the final written report for publication. You will not be identified in any way as all information provided will be kept confidential. You are also advised to keep any issues discussed during the research process to strict confidentiality so that we corporate in protecting each other’s privacy and remain anonymous is this study.

Certification by participant

I _____ of Samill/Kofaik Primary School certify that I am over 18 years old and that I am voluntarily and willingly give my consent to participate in the study ‘Exploring teachers’ perceptions of assessment on student learning in grade 6 primary classrooms in Papua New Guinea (PNG)’being conducted at Samill /Kofaik Primary School by Erita Yawi a PhD Research Student.

I certify that the objectives of the study, together with any risks and safeguards associated with the procedures listed hereunder to be carried out in the research, have been fully explained to me by Erita the research student and that I freely consent to participate involving the mentioned procedures below. As the potential participants to this study, you have the following rights to.

- withdraw from the study anytime up until 30th August 2023

- refuse to answer any question/s.
- ask any further questions about the study and how the information you provided will be used.
- examine any information either to amend any part you wish to or request certain information to be withheld and not to be used, up to the period of data analysis.
- examine the transcript to confirm that it is a true representation of your responses.
- raise any complaints regarding the research project/process to the Victoria University

I certify that I have had the opportunity to have any questions answered and that I understand that I can withdraw from this study at any time. The withdrawal will not affect me in any way.

I have been informed that the information I provide will be kept confidential.

Signed:

Date:

Any queries about your participation in this project may be directed to my research supervisor.

My research project is under the supervision of Associate Professor Mark Vicars (my principal supervisor) Mark.Vicars@vu.edu.au

Telephone: + 61 3 9919 2052

If you have any queries or complaints about the way you have been treated, you may contact the Ethics Secretary, Victoria University Human Research Ethics Committee, Office for Research, Victoria University, PO Box 14428, Melbourne, VIC, 8001, email Researchethics@vu.edu.au or phone (03) 9919 4781 or 4461.

Appendix N

Letter of response from provincial education advisor, East Sepik Province



EAST SEPIK PROVINCIAL ADMINISTRATION

Office of the Provincial Administrator

Telephone: (675) 456 1337

Facsimile: (675) 456

Email: espa@officeofpa.com.pg

BMS Free Mail Bag

WEWAK ESP

Papua New Guinea

3 November 2022

Erita Yawi
PhD Research Student
Victoria University
101 Ballarat Road
Footscray VIC 3011
AUSTRALIA

Dear Erita Yawi

Ref: Request for permission to conduct research in primary schools in East Sepik Province.

Your request seeking permission to conduct research in primary schools in East Sepik Province is granted.

Do continue on your research here as stated in your request letter as your research will also assist us in delivering better education services in the province.

Waiting to receive you next year and do inform me of your coming in March 2023.

Thank you



Mr. Timothy Yavu
Executive Manager - Education

Appendix O Permission for overseas travel for fieldwork

From: [Andy Hill](#)
To: [Stephen Gray](#)
Subject: RE: Seeking permission for overseas travel for fieldwork
Date: Monday, 6 March 2023 8:08:57 AM

I approve the travel request.
Andy

From: Stephen Gray <Stephen.Gray@vu.edu.au>
Sent: Friday, March 3, 2023 7:45 PM
To: Andy Hill <Andy.Hill@vu.edu.au>
Subject: FW: Seeking permission for overseas travel for fieldwork

Hello Andy,

A PhD student from Papua New Guinea (PNG) is requesting travel back to PNG to undertake field work (see below and attached).

The travel would be paid by her Australia Awards scholarship and she is awaiting final ethics approval for her field work before finalising her travel plans.

I request that you approve her travel subject to approval of her ethics application, as it is central to her studies that she undertake the field trials.

The DFAT level for PNG is 2. She will not be travelling to the more dangerous rating 3 areas (see attached email).

Warm Regards
Stephen

From: Erita Yawi Gabby <erita.yawigabby@live.vu.edu.au>
Sent: Friday, 3 March 2023 5:10 PM
To: Stephen Gray <Stephen.Gray@vu.edu.au>
Cc: Mark Vicars <Mark.Vicars@vu.edu.au>
Subject: RE: Seeking permission for overseas travel for fieldwork

EXTERNAL EMAIL: Please be cautious before clicking on any links or downloading attachments.

Dear Stephen,
Thank you for your response to my email.
Apology for not providing enough information.
My research topic is *Exploring teachers' perception on assessment about student learning in grade 6 classrooms in Papua New Guinea primary schools*.
My field work concerns collecting information from teachers using semi-structured interviews, observations of English lessons and collecting teachers documents to analyse.
Four primary school teachers will be recruited for the study. The teachers will be recruited from two primary schools one urban and one rural. I will be travelling to schools to collect data.
The data collection process will take 6 months.
The Human Research Ethics committee, (High risk research) have looked at my ethics submission

and is “withheld”, there are amendments to make prior to approval but I was advised today to contact you to get permission for the overseas travel.

When I resubmit my ethics application, I will attach the overseas travel approved form as well. My travel to Papua New Guinea from Melbourne and return is sponsored by Australia Awards PNG. Johnny. Ko jko@vu.edu.au can be contacted for more information.

I intent to travel on the 20th of March and return on the 30th of September 2023 if my ethics application is approved in time for the travel.

Please do contact me if you need more information.

Attached are some documents for data collection.

Thank you once again.

Best wishes

Erita

From: Stephen Gray <Stephen.Gray@vu.edu.au>

Sent: Friday, 3 March 2023 4:25 PM

To: Erita Yawi Gabby <erita.yawigabby@live.vu.edu.au>

Subject: RE: Seeking permission for overseas travel for fieldwork

Hello Erita and Mark,

Can you provide a few more details on your trip?

What is the field work you are doing in PNG?

Has the ethics committee approved the field work (your email does not explicitly state this although I presume it has)?

Who is paying for the trip?

Once I receive this information I can request that Prof Andy Hill, DVC Research and Impact, approve your travel. Andy is required to approve international research travel.

Warm regards

Stephen

From: Erita Yawi Gabby <erita.yawigabby@live.vu.edu.au>

Sent: Friday, 3 March 2023 1:52 PM

To: Stephen Gray <Stephen.Gray@vu.edu.au>

Cc: Mark Vicars <Mark.Vicars@vu.edu.au>

Subject: Seeking permission for overseas travel for fieldwork

EXTERNAL EMAIL: Please be cautious before clicking on any links or downloading attachments.

Dear Stephan,

Good afternoon.

Hope this email finds you well.

I am Erita Yawi an international PhD student from Papua New Guinea supervised by Associate Professor Mark Vicars. I am due to travel home to PNG late this month (March) or early next month (April) for my field work (data collection).

As required by Victoria University Ethics committee I have to obtain permission from the university which you are the person to contact.

I am kindly requesting permission to be granted for me to go to PNG for my field work this year.

Thank you for your assistance.

Kindest regards.

Erita

Appendix P

Working with children in Victoria permit



You've passed your Working with Children Check

Dear Erita YAWI,

You have passed the Working with Children Check. Your card 2694121A-01 will arrive in 4 weeks.

After you receive your card, you can log in to organisation's details online.



[MyCheck](#) to update your personal and

Director

Working with Children Check Victoria

This is a system-generated email so please do not reply.

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Appendix Q 2023 data collection: tentative schedules for teachers' interviews and lesson observations

Samill Primary School

Teacher: Noko: activity schedule

Week	Teacher	Day	Activities	Time	Assessment type
1	Noko	Thursday	Discussions: Lesson 1 planning	3:00–4:00	
2		Wednesday	English Lesson 1: observation	9:30–10:00	As learning: grammar lesson
			Lesson reflection: Lesson 2 planning	3:00–4:00	
		Thursday	Interview 1	3:00–4:00	
3		Wednesday	English lesson 2 observation	9:30–10:00	For learning: literature lesson on poems
			Lesson 2 reflection: Lesson 3 planning	3:00–4:00	
		Thursday	Interview 2	3:00–4:00	
4		Monday	English lesson 3 observation	9:30–10:00	As learning
			Lesson 3 reflection: Lesson 4 planning	3:00–4:00	
	Tuesday	Interview 3	3:00–4:00		
	Friday	Interview 4	3:00–4:00	Of learning	
5	Tuesday	English lesson 4	9:30–10:00		
		Lesson 4 reflection	3:00–4:00		

Teacher: Rami: activity schedule

Week	Teacher	Day	Activities	Time	Assessment type
2	Rami	Thursday	Discussions: Lesson 1 planning	3:00–4:00	
3		Monday	English Lesson 1: Observation	9:30–10:00	As learning

Week	Teacher	Day	Activities	Time	Assessment type
			Lesson 1 reflection: Lesson 2 planning	3:00–4:00	Grammar lesson
		Tuesday	Interview 1	3:00–4:00	
4		Wednesday	English lesson 2 observation Lesson 2 reflection: Lesson 3 planning	9:30–10:00 3:00–4:00	For learning: Literature lesson on Poems
		Thursday	Interview 2	3:00–4:00	
5		Monday	English lesson 3 observation Lesson 3 reflection Lesson 4 planning	9:30–10:00 3:00–5:00	As learning
		Tuesday	Interview 3	3:00–4:00	
		Thursday	Interview 4	3:00–4:00	Of learning
6		Tuesday	English lesson 4 Lesson 4 reflection	9:30–10:00 3:00–4:00	

Kofaik Primary School

Teacher: Waka: activity schedule

Outcomes: To collect data through four lesson observations and four interviews as scheduled.
Teacher's lesson plans and students' workbooks will also be collected for document analysis.

Week	Teacher	Day	Time	Activities
2	Waka	Monday	8:00–4:00	Consult the timetable and discuss lesson 1 planning and preparation
		Tuesday		Develop lesson plan include assessment as/in learning
		Wednesday		Continue planning and preparing for lesson 1
		Thursday		Checking lesson plan with the type of assessment
		Friday		Continue planning and preparing for lesson 1
3		Monday	9:30–10:00	Lesson 1 observation: assessment as learning
			3:00–4:00	Lesson 1 reflection and planning lesson 2
Tuesday		3:00–4:00	Interview 1	
4		Monday	11:00–11:30	Lesson 2 observation: assessment as learning
			3:00–4:00	Lesson 2 reflection and planning, lesson 3
Tuesday		3:00–4:00	Interview 2	
5		Monday	9:30–10:00	Lesson 3 observation: assessment for learning
			3:00–4:00	Lesson 3 reflection and planning, lesson 4
Tuesday		3:00–4:00	Interview 3	
6		Monday	9:30–10:00	Lesson 4 observation: assessment for learning
			3:00–4:00	Lesson 4 reflection
			Tuesday	3:00–4:00

Teacher: Kavi: activity schedule

Outcomes: To collect data through four lesson observations and four interviews as scheduled.
Teacher's lesson plans and students' workbooks will also be collected for document analysis.

Week	Teacher	Day	Time	Activities
2	Kavi	Monday	8:00–4:00	Consult the timetable and discuss lesson 1 planning and preparation
		Tuesday		Develop a lesson plan that includes assessment as learning
		Wednesday		Continue planning and preparing for lesson 1
		Thursday		Checking the lesson plan and the type of assessment
		Friday		Continue planning and preparing for lesson 1
3		Wednesday	9:30–10:00	Lesson 1 observation: assessment as learning
			3:00–4:00	Lesson 1 reflection and lesson 2 planning
Thursday		3:00–4:00	Interview 1	
4		Wednesday	9:30–10:00	English lesson 2 observation, assessment as learning
			3:00–4:00	Lesson reflection 2 and planning lesson 3
Thursday		3:00–4:00	Interview 2	
5		Wednesday	9:30–10:00	Lesson 3 observation: Assessment for learning
			3:00–4:00	Lesson 3: reflection and planning, lesson 4
Thursday		3:00–4:00	Interview 3	
6		Wednesday	9:30–10:00	English lesson observation 4: assessment for learning
			3:00–4:00	Lesson reflection 4 reflection

Week	Teacher	Day	Time	Activities
		Thursday	3:00–4:00	Interview 4

Appendix R Information to parents and guardians

Erita Yawi is a research student from Victoria University in Melbourne, Australia, who will conduct her research at _____ primary school for a period of three months.

The researcher would like to inform parents and guardians of students in grade six _____ class that her presence in the classroom will not affect the daily teaching and learning. All lessons will progress as usual.

As part of the research process, the students will be involved in the study during lesson observations, where the researcher observes the teacher teaching while the students are present. The researcher will collect some of the students' activity books as part of her study but this will not affect student learning. During the lesson observations, she will sit at the back of the classroom and refrain from disturbing the class. The researcher will be present in the classroom only on selected days and at scheduled times, as outlined in their class timetable.

The researcher would like to inform you that she will not disrupt your children's learning in any way while interacting with the teacher. The teacher will not be exempt from their professional responsibilities. He/she will continue to teach the students while the research is conducted. The researcher would like to assure you that all discussions and reflections on lessons will be conducted between the teacher and the researcher; no children will be involved in these discussions.

The researcher would like to thank you for your understanding.

For any queries regarding the given information, please contact me through the school head teacher.

Thank you.

Erita Yawi

Student Researcher.

Appendix S

Student consent



Catholic Diocese of Wewak

Education Office

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Papua New Guinea

07th – 03 – 23

Victoria University Human Research Ethics Committee
Office for Research,
Victoria University
PO Box 14428
Melbourne,
VIC, 8001

Dear Chairperson,

I Mrs. Anastasia Tia the Catholic Education Secretary of the Diocese of Wewak in writing, writes on behalf of my teachers at Kunjigini Primary School. This letter is to inform you that Miss Eita Yawi a student at your institution who is doing her research here at the above mentioned school does not need Parents' Consent while carrying out her research. The students that will be engaged will be under their teacher's supervision.

Should you require more information, please do not hesitate to contact me through my email or Mobile number stated above.

Thank you.

Yours sincerely,

atia

Mrs. Anastasia Dick Tia
Catholic Education Secretary