



AN INVESTIGATION INTO THE IMPACT OF
AN INFORMAL TEACHER TRAINING
INITIATIVE IN THE KOKODA TRACK
CATCHMENT REGION

RESEARCH REPORT

**RESEARCH CONDUCTED FOR KTF
(KOKODA TRACK FOUNDATION)**

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August, 2019



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Foreword

In a country with over 850 distinct languages and an even larger number of tribes and cultures, it is no wonder the provision of basic services such as education and health confront ongoing challenges, especially their provision in rural and remote areas. A lack of school infrastructure, a paucity of teachers and the very minimal support for ongoing training and professional development for teachers has led Papua New Guinea's education system to where it is today. And yet time and time again we encounter such strong desires for learning and education amongst children, young people and adults alike. We often come across a passion and commitment to developing the next generation of leaders for PNG by way of teachers, educators or individuals who are inspired to teach young children in their remote communities, no matter the cost. Often these teachers volunteer their time, using anything they can find to educate their children.

The formal education system is under-resourced and there are not enough teachers being trained and supported to take up posts in remote schools across rural PNG. A solution to this adaptive challenge has not yet been found and no doubt will require significant investment; however, what we do know is that the current model of teacher training isn't working at its full capacity and requires an innovative and new response. This is what we do best at KTF.

To not be burdened by the challenges of the formal system, in 2012, we pushed ahead with the development of our own state-of-the-art teacher training programme and delivered it to trainee teachers in an area where its teachers are so desperately needed and where people wanted to learn no matter the outcome. We had hoped that proper accreditation and certification would be received but nonetheless we were committed to creating a cohort of exemplary teachers whose dedication, creativity and hard work would allow thousands of children to attend a school and receive high quality education.

Years later, we continue to see these teachers in action, some continuing to be paid a salary by KTF, some continuing to volunteer, and some who have undertaken further government training to be transferred onto a government payroll. Regardless of qualification and remuneration, two things stand out all these years later. First, these teachers continue to hold up the rural elementary system in their region and have educated thousands of children over the years, helping to create safer and enhanced learning pathways for children who otherwise would have been crammed into larger classes or would have received no education at all. And secondly, the impact these teachers have had on their peers via their ability to pass on skills and lessons learnt from their original informal training is clearly demonstrated in the classroom today.

All in all, we believe that there are significant benefits to breaking out of the mould, to thinking bigger and taking risks. PNG's formal education system and accreditation processes are necessary pathways when the system is properly resourced by Government; however, when this system is not fully resourced or supported, we must explore alternate solutions. This work undertaken by educationalist, Ruth James, demonstrates the power of the informal education system in rural PNG – a system that should be supported, not quashed, and whereby many tens of thousands of children receive an education every year.

Executive Summary

This research report was commissioned by the Kokoda Track Foundation (KTF) to determine the effectiveness and impact of an informal elementary teacher training program that was designed and delivered to teacher trainees from across the Oro and Central Provinces of Papua New Guinea (PNG). The research followed a cohort of teachers who had previously participated in the KTF teacher training program and draws out the reflections from the teachers and communities across the Kokoda catchment region.

The purpose of this research was to explore and analyse the teacher training program that was delivered in 2012, addressing the strengths and weaknesses of the training, and examining the pathways which had led participants to where they are today, ultimately determining the efficacy of the informal education system in PNG.

A number of key learnings were uncovered by the research:

The value of training with particular emphasis on particular modules was well received and critical for the development of teacher's knowledge and skills. Particular skills such as phonics, disability and inclusive education, child protection and the utilisation of natural resources for learning were highlighted by teachers as critical skills that they continue to use in their teaching every day.

A stark comparison emerged between the quality of graduates from the KTF training program and graduates of Government elementary teacher training programs. It was clear that the higher standard of teaching and learning was evidenced by KTF trained teachers, despite difficult conditions faced by these teachers including uncertainty, lack of funding for their positions and further professional development, and fear of not receiving or losing an income. It was also evident that Government trained and funded teachers often sought out KTF trained teachers for mentoring and advice. In some cases, KTF trained teachers would be asked to or forced to take complete control of their classes or schools.

An increase in skillset often comes with an increase in confidence which was evident in the responses given by research participants. All participants felt more empowered and confident to carry out their teaching activities.

Whilst ongoing training and further professional development is required, and always will be, it is abundantly clear that an informal system has much value in rural PNG as evidenced by the sheer determination of the KTF cohort of teachers who are committed to the development of their communities and children. Despite the challenges faced by these individuals and the continued lack of recognition of their skills and tireless work, the research demonstrated the clear impact they have had on the rural education system.

Introduction

KTF is an international development NGO that has been operating in PNG for over a decade. KTF's purpose is to work with people and communities to improve the lives and futures of Papua New Guineans. KTF works in partnership with communities, identifies their needs and strengths, and together implements projects that achieve long term changes. KTF has recently expanded beyond the Kokoda catchment region in Oro and Central Provinces and provides support to communities across 16 Provinces.

KTF has been implementing its Education Program in PNG since its inception in 2003. Strong partnerships with the Department of Education at all levels (National, Province, and District) have been established and the delivery of a variety of education interventions have been undertaken over this time. These interventions have included a wide-scale scholarship program for 2,000 children living in the Kokoda Track catchment region, the operations of over 50 elementary and primary schools, including the training and postings of teachers, and the training for certification of 3,685 elementary teachers across 14 Provinces in PNG.

In 2012, KTF utilized a facility it had previously built in Kou Kou community (in 2011) to train a cohort of elementary teachers for remote and rural Oro and Central Provinces. At the time KTF conducted its training programme, the Government course for the training of elementary teachers was the mixed-mode, multi-grade certificate of elementary teaching that was delivered via three x 6-week training modules over three years. The quality of this training reported by the recipients was poor and anecdotal evidence at the time suggested that teachers required more in depth training, over a longer period of time, and of a higher quality.

In preparation for the establishment of a larger facility that would ultimately become a Teachers College, KTF designed a 6-month pre-service training program that could be delivered at its Community Hall in Kou Kou village. The training program was aligned with the national Certificate of Elementary Teaching curriculum, but was more in-depth, had greater orientation to evidence based teaching strategies, pedagogical good practice and a range of "add-value" elements such as child protection, gender equity and inclusive education modules.

In 2012, KTF enrolled 60 Grade 10 school leavers from the catchment region in its pilot teacher training program and they attended the 6-month program. The teacher trainees were billeted in the local community who were extremely supportive and also put forward a number of community representatives to attend the training. Trainees were selected from locations where there was no elementary school, or an extremely under-resourced elementary school and participants had to have strong desires to be teachers for the remainder of their careers.

The course was not accredited by the National Government and so there was no guarantee that any graduates from the program would be eligible for certification and government positions.

Via KTF's PNG Schools Project, however, a number of the teacher graduates were offered full-time employment positions with KTF and were supported to either establish new schools or operate existing schools. Seven years later, it became apparent that these teachers were responsible for delivering a high-quality education to hundreds of students across the catchment region, and that this "informal system" has supported these pathways, in the context of an under-resourced, and often broken Government education system.

The purpose of this research was to undertake an in-depth examination of the journeys of the teachers trained under KTF's 2012 teacher training program and the impact that these teachers have had in delivering teaching and learning in remote and rural communities throughout the Kokoda Track catchment region.

The research has examined in part the efficacy of the informal education system in remote and rural PNG and explores and describes whether non-traditional pathways can also result in education outcomes being met for children in remote areas.

Methodology

The research was conducted by independent researcher, Ruth James, from Allied Learning. The researcher utilised a qualitative framework and semi-structured interviews and focus groups were conducted that explored participants' experiences of the teacher training program delivered in 2012 including strengths and weaknesses of the learning process and outcomes acquired.

The interviews and focus groups analysed the journeys of the teachers after they graduated from KTF's teacher training program. In particular the researcher examined the various pathways that graduates took including taking up NGO and/or Church funded teaching positions, volunteering, and being supported by local communities. The researcher analysed this from the perspective of the teachers themselves, as well as their schools (boards of management, peer teachers etc), and communities (including parents and leaders).

A total of 17 teachers participated in the interviews and focus groups representing 12 schools from across the catchment region. The participating schools were: Kokoda Elementary School, Kokoda College, Kou Kou Infants School, Hoi Elementary School, Alola Elementary School, Sengi Elementary School, Kovello Elementary School, Kebara Elementary School, Waju Elementary School, Gorari Elementary School, Buna Elementary School, and Sanananda Elementary School.

Research Findings

Value of Phonics Training

An initial key finding emerging from the research was the immense value that the KTF trained teachers placed on phonics training. Phonics training was identified as a superior skillset previously unknown or unrecognised in PNG Government provided training. It has proven to be a vital area for the teachers as their students are superior in their results, compared to those taught under Government curricula which are not delivering Phonics.

The importance of developing early childhood learning of the English Language through the natural application of Phonics, is identified from the proven success of these teachers' achievements and their shared experiences across 12 different schools (i.e. Kokoda College, Kokoda, Alola, Hoi, Sengi, Kovolo and Hoi Elementaries, Kou Kou Infant, Kokoda Primary, Gorari, Waju, Kebara, Sanananda and Buna Elementaries).

The KTF trained teachers agreed overwhelmingly that their Phonics training was one of their most significant and effective tools for providing this important learning with their students' proven achievements. They also noted that because they had received bespoke phonics training from KTF, this drew keen interest from their PNG Government-trained colleagues. This resulted in many occasions whereby KTF teachers were asked to write books and manuals that would provide training for future PNG Government training programs, as well as Government teachers asking to 'sit-in' on their lessons to gain more of an understanding of how Phonics is applied.

Phonics continues to act as a great skill builder, giving greater creativity and understanding of word building to students. Reading books are used to develop these phonics skills, boosting great confidence in students as well as being an exciting skill which the children respond to.

All of the teachers interviewed shared similar experiences and became mentors and coaches to Government-trained teachers who had none of these skills. The Government teachers interviewed, some of whom are employed by KTF, spoke of having undertaken KTF workshops to improve their phonics skills and to develop their quality of teaching further.

Need for Targeted Disabilities Training and Skills

Teachers across the board spoke about how children with a disability are normally kept at home rather than sent to school by their parents. A number of KTF trained teachers spoke about the fact that due to their inclusive education training, they had worked with parents and communities to foster pathways for children with a disability to enrol and attend school and are either teaching or

have taught children with a disability in the past. The diversifying natures of these teachers have enabled them to adapt to this challenge by using their techniques to engage children with disabilities.

One teacher stated that her KTF training gave her the skills and techniques to support a child with an intellectual disability using more hand and visual expressions and pictures to engage the student with great success.

Further experiences shared by teachers demonstrated that the KTF training enabled another teacher to provide successful learning to their students with hearing disabilities by using expression, emotions, hand gestures, pictures and flashcards for clarity and visual led learning.

Another teacher spoke of his experience applying skills taught to adapt his teaching methods for a student with a disability and teaching them how to learn to use their left hand for writing and drawing. This teacher stated that they relied heavily on their KTF training skills and creativity, specifically referencing the focus of the KTF training on inclusive education skills and engaging all children in the community. Having this faith in himself and his skills enabled this dedicated teacher to assist his student by strengthening their left side for better control and developing the use of their left-hand writing skills. Writing control began with tracing and scribble writing which was a key element of focus in their training.

Another teacher spoke about teaching a student who couldn't use their hands but loves maths and reading, so she adapts by being expressive in her teaching and using flashcards regularly.

Despite these positive examples of the impact of the inclusive education training, it is the opinion of the research that more training in inclusive education is necessary as there are many more varied cases of children with disabilities especially in these remote villages which KTF trained teachers could be educating successfully if they were given a wider range of skills.

These children would not only greatly benefit from the education they are currently denied, but the interaction, confidence, social development and opportunities that schooling brings. Community awareness and working with parents is also an important component of this.

KTF Training Resulting in Superior Skillset compared to Government Colleagues

All teachers interviewed stated they have received very positive responses from other teachers regarding the significance of their skills. All agreed that their skills are considered superior to those of their colleagues and they continue to demonstrate this with great pride.

One of the greatest differences identified by the teachers between the KTF and Government training programs was KTF's focus on lesson plans with KTF's training identified as more effective. Some

Government trained teachers reported being taught in Tok Pisin and as a result having a lower comprehension of the English language. KTF teachers are taught only in English.

KTF trained teachers found their students were achieving more successful results in their exams than students taught by PNG Government trained teachers. These results were recognised and acknowledged by other Government trained teachers and Headmasters but unfortunately not recognised by the Ministry of Education.

One Government trained teacher who undertook his first year of KTF training, compared the two different programs of Government training, reported finding KTF's training more holistic. The reason for this was that KTF training provided better knowledge and information, as well as the evaluations being a great confidence builder. These evaluations enabled him to build on his skills effectively as an experienced teacher.

KTF teachers reported that Government trained teachers' lesson plans weren't diverse or coordinated throughout their lessons whereas KTF-based lesson plans are innovative and creative for multigrades by being imaginative.

KTF trained teachers are known for their focus on dedication to teaching as a primary requirement and setting an outstanding example which their KTF training brings to their quality of teaching. This pride in such skills enables the ambitions of these teachers to pursue diverse careers, developing their skills to become career-orientated women and men, pursuing careers such as librarians, project and welfare officers, as well as running their own schools.

An example of this was one teacher who enterprisingly undertook further training of her own volition to become a school librarian, then proceeded to combine her teaching and librarian skills to become a Projects and Welfare Officer of Kokoda College.

Another example is a young couple who completed their training and, together, moved straight on to re-open the Gorari Elementary when there was no Head Teacher. Their training and dedication to quality education brought the school to its former reputable state, resulting in the parents being delighted with their children's pleasing results. The most important skills reported by these teachers were the lesson plans and the teachers reported having added his own techniques such as adding an unknown element to the lesson.

Another teacher spoke about including writing skills and phonics skills from her training into her lesson plans. These teachers identified the skills they've developed for the different levels of learning, including how they support students with disabilities and adapt to changing environments. The 3 x 6 week training for the teachers brought out these skills which they have since built on successfully.

These proud teachers feel their training and skills give them greater standing and superior experience than Government-trained teachers.

Leadership skills were also recognised by three KTF-trained teachers who were encouraged to pursue this course of training.

Unfortunately, KTF trained teachers continue to be denied achieving their accreditations due to their training not being recognised by the Government, regardless of their proven results using these superior and outstanding skills.

Increased Confidence among Teachers

All the participating teachers spoke about the improvements in their leadership, management, and mentoring abilities which were developed and enhanced by their training, giving them broader scope and understanding to undertake meetings with community leaders, parents and school leaders.

KTF's head trainer was significant in her mentoring and guidance, developing perception in these teachers with her guidance, evaluation and leading the teachers into a new generation.

The KTF trained teachers spoke of their greater confidence in using their training to achieve improved results in their classrooms. An example of this was one teacher who spoke of the specific skillset whereby she would pair students in their different learning levels for paired/group activities, enabling them to work together and help each other create a better network within the classroom.

One teacher expressed that she was very confident following her training enabling her to become more comfortable teaching in English, especially in phonics. Other teachers shared that their students were waiting excitedly for them as new teachers, happily welcoming them back after their training, alongside their fellow teachers who were also waiting for them. This made the beginning of their new careers as teachers both memorable and easy transitions.

One teacher spoke of using her training skills and experience confidently, explaining that she gets extra children attending her classes as parents are dissatisfied with the way their children are being taught in their respective grades. Parents watch from outside the windows while she holds her classes so they can observe how she teaches their children and they can learn also. To accommodate these older students, she segments the class and designs lessons with add-ons for the faster learners and suitable lesson plans for younger or slower learners with additional activities as necessary.

Another teacher was very confident following his practical sessions and he reported that it was a pleasure for him to take on his role and he felt very confident to do so. This teacher started teaching at the Grade 3 Primary level instead of Elementary due to a severe teacher shortage in the region and the fact that the school had been within a Grade 3 teacher for many years. Supported and guided by the senior teachers, especially with devising primary level lesson plans and resources, this teacher reported being able to adapt his training and working "on the run" to build his skills.

This same teacher also completed a stint as head teacher at the school during a period of long teacher-in-charge absenteeism. The school's resourcing for both the payroll positions and operations came entirely from KTF.

This same teacher's wife returned after Maternity Leave to engage Elementary Yrs 1 & 2 for 2 years, supported by him to regain and increase her knowledge (designing lessons, etc.) She was quite daunted by her first role but combatted this with her courage, developing her confidence from her experiences. Together, she and her husband ran the school, sharing this valuable experience as a successful team.

Lack of Resourcing Across the Board

All 17 teachers interviewed spoke of the lack of resourcing of schools across the board. Textbooks and teaching resources are especially in need and all teachers spoke about the fact that they design and use their own resources and materials as was demonstrated to them during their training.

Stationery is supplied from time to time by KTF and other partners in the region including the DFAT funded Kokoda Initiative. The PNG Government will sometimes bring supplies but only up to once a year.

One teacher spoke about having been given a laptop which is now broken, but how useful it was for displaying pictures and items to support her lessons as well as creating flashcards, books, and printed materials. The laptop technology had been very useful and made the lesson planning process so much more interesting for her classes. Currently, this teacher is also trying to manage with the lack of room in her classroom for reading classes where the children sit on the floor in front of her while she reads. After a discussion on how this can be handled, she is considering re-arranging the room so her desk might be in a more suitable place and shelves on the wall could free up areas also.

Other teachers commented on how they draw up lesson plans and activities for their students using marking pens and then they help each other copy them down into exercise books. Otherwise, when there is funding available for resources, they might be able to get some photocopies done, but this is a rare occasion. These teachers state that the Kokoda Initiative sometimes sends materials (but only rarely) and they have provided them with the new Standards-Based syllabus, the teachers guide and resources books. According to these teachers, KTF are also reliable suppliers of all resources and stationery.

Other teachers spoke of receiving support from KTF for learning and teaching materials, textbooks, sports equipment and picture materials, blocks at least once a year. In order to provide more support

to the school's operations, these teachers implemented student offering days on Mondays, Wednesdays and Fridays whereby children bring food to school as offerings to the teachers.

Another teacher told the research that she receives no resources from any third parties; no reading books particularly) but improvises using flashcards containing pictures and letters of the alphabet.

Another teacher spoke about her children's surprise at seeing her use concrete to count when she worked with this as a new material in one of her first lessons with them.

Another teacher found that music and songs were particularly successful in lessons which the children enjoyed. This teacher was in charge of a new school when it was first opened and she'd only just graduated from her KTF training. She looked for resources everywhere to use for materials, as traditional resources were not available, including rubbish or anything she could find in the village.

Many teachers spoke about the need to see more solar introduced into schools and communities in order to power the school and teachers' houses. One teacher stated that they use laptops but internet and power are major problems. Laptops allow for the use of DVDs for documentaries with Q&A afterwards.

Finally, some teachers also mentioned that sometimes they are sent equipment they don't use (eg. musical instruments) and that donors must prioritise materials that are critical to teaching and learning such as linguistic materials. Funding continues to be a problem for getting supplies for the ongoing resourcing of equipment (i.e. printer ink, paper etc).

High Level of Creative Use of Natural Environments

In the remote locations in which the teachers live and teach, access to resources is minimal. As a result, all teachers spoke of the need to improvise and to utilise the materials gathered from their natural environments. Examples given by the teachers of these types of natural resources included stones for counting, bark for texture and colour, clay for shaping and making figures, charcoal for drawing, soils for colour, flowers, and seeds for sewing. The remoteness of the often-unforgiving region brings out these teachers' creativity using stones which are sometimes painted and have numbers applied to them. Story books are also written by some teachers and stapled to create readers for the classroom.

The teachers interviewed spoke about taking their classes outside to find bush resources such as charcoal, clay, stones, sticks, leaves, petals, seeds and bark. These are all materials used for counting, arts and crafts, maths, literacy, as well as sewing them together making books and drums.

Three teachers interviewed shared their significant experiences regarding resources which have assisted in developing their use of natural resources. One teacher finds that maths and phonics bring out the best in connecting with the students by creating fun lessons for phonics, reading and using

stones for counting which the kids love. Another teacher spoke of her love for Community and Culture whereby she designs classes for healthy foods using her own materials to create charts which the kids love. Another teacher also loves Community and Culture and engages students with the various colours of organic resources that can be found in her natural environment.

Some teachers spoke of developing lessons by using sticks, leaves, stones and charcoal, clay for making shapes and figures, stones/ticks for counting, leaves for tracing, and fishponds for science. They also take the students to neighbouring villages to see how the different communities work, the structure of the buildings, and introduces them to the Village Chief and Leaders in that Community.

On the Northern Beaches of Oro Province, shells are also used in lessons for art and design as well as creative storytelling.

Other Teachers Seeking out KTF Trained Teachers for Mentoring/Advice

A majority of the KTF teachers interviewed stated that they have been asked to share their knowledge and experiences of phonics, lessons plans and programming with their peers as well as teaching their colleagues who have not had this training. They have been asked to provide notes, write books and manuals, and assist in training other Government trained teachers.

They have also been asked to share their techniques for expanding comments and the completion of report cards. Further phonics and reading experiences shared by other KTF teachers told the researcher that Government trained teachers have specifically asked to sit in on these classes, by arrangement, to gain an understanding about this key subject in the curriculum. This has resulted in this skill now being widely presented by more Government-trained teachers.

The students' sound achievements and outstanding results with spelling and reading has also caught the attention of Government teachers who wanted to know how these students were achieving this. These experiences shared are now taught by more Government trained teachers who are also applying these skills successfully in the classroom.

For example, one teacher was asked by a teacher from a neighbouring school how to attract the children's attention. He recommended using expression and interesting tones to capture their focus when reading and/or speaking. This teacher, along with another from the same school, are now currently mentoring a visiting volunteer teacher who is learning from them and currently enrolled in teacher training.

Informal System Works Decisively, even with its Challenges

KTF teachers have found a lot of support within their communities, establishing their roles through a combined commitment and contribution by community leaders, churches, parents, health workers, KTF, as well as PNG Government support of registered schools.

Some teachers have indicated that following their training, they went straight into their elementary school, one having taught in the same school for up to 19 years. Roles are often arranged prior to them finishing their training.

Roles are in many cases created for teachers as they are selected by their community leaders to embark on careers in teaching. This is often how the informal system is established in remote and rural PNG and how schools begin operating, often long before Government intervention. One teacher interviewed was the only person in her community to attend High School and as such was selected to become a teacher and a school was built and role created especially for her.

Some teachers began their teaching in their community halls until the community built a specific elementary school for them to transfer their classrooms to. Other teachers reported having had their double classroom built by the community or other third parties to cater for their Preparatory, Elementary 1 & Elementary 2 students.

The teachers also spoke about the important roles the communities play in working with the teachers to keep the classrooms and grounds clean as well as in providing food offerings for the teachers. The informal system has supported many of the teachers trained by KTF and enables them to stay in their classrooms during school hours instead of having to tend to their gardens and other domestic duties. Some teachers have found that food is offered by their community but this often stops once the teacher is on the payroll. Even though a teacher may be transferred onto payroll (through NGO, Church or Government pathways), it is often still very difficult for them to sustain their families and tend to food gardens; so the cessation of food offerings presents an added challenge to teachers, especially those in remote areas.

The church also assists with keeping school grounds and classrooms clean, provides Religious Instruction, as well as assisting with reading and writing lessons in the classroom being part of the curriculum. The church is viewed as providing an excellent support to the informal system.

Teachers spoke about the role that parents play in assisting in the classroom in all but one school, assisting with writing, reading, general lessons, craft classes, teaching weaving, sewing, etc. These teachers also find great support from parents assisting with homework and engaging in their children's learning. In one school, however, parents gave no support at all.

In one school, lessons are developed from the various common community activities, both at home and in their villages. The activities are integrated into their lessons as part of the lessons in

community involvement. Their different lessons are planned carefully but also give children time to explore their own activities.

Another teacher spoke about how the community assists them by cleaning the school as well as assisting with reading in the classroom, lessons and writing, clarifying instructions and assisting with homework. This same teacher spoke about how the Church assists by cleaning the school grounds and delivering religious instruction as part of the Curriculum.

In some cases, the community have not only provided food offerings to teachers who are not on salaries, but also provide support with individual donations of K2 while teachers weren't receiving a Salary.

Additional challenges that stretch the efficacy of the informal rural schooling system are:

- Remoteness: One of the struggles children face in these remote areas, is walking for an hour to school from the mountains. If it is raining heavily, they don't go to school at all. Combatting difficulties in remoteness is achieved by teachers working together with parents supplying resources and realia (stones, sticks, etc), caring for the children and walking with them to school, and working as a team with the teachers.
- Lack of other resources: Many schools reported having no first aid kit. In the event of the children getting sick, the teachers will send the child home before he/she gets too sick.
- Large class sizes: Challenges encountered include bad behaviour which is a significant problem in a class of approx. 60 students especially in older students. These older students are often absent from school, unbeknown to their parents. Hand gestures and capturing eye contact are successful methods used to assist keeping the students on task. Revision is too overwhelming due to excessive numbers of students in classes.
- Bridging illiteracy from Elementary to Grade 3 is a huge problem. The KTF teachers provide quality education utilising their KTF training skills by planning activities targeting illiteracy. This requires extra resources to build these students' skills to bring them up to their required level of learning.

One major positive that was identified by most teachers delivering schooling in the informal system was that girls have the same opportunities as the boys to attend school reliably; and they have no issues with girls being kept at home by their parents.

Future Training & Requirements

Greater access to textbooks and reference material was highlighted over and over by teachers as an urgent requirement. There was a specific request for additional resources and textbooks for mathematics.

More training was unanimously requested in the following areas:

- Grammar and phonics
- Planning and programming
- Speaking fluently and improved language skills
- Maths, particularly fractions, algebra, geometry
- Critical thinking

Some teachers also suggested introducing the following training as there is none in either:

- Inclusive education and teaching children with a disability
- First Aid for all teachers

All teachers also wish to have more training that will enable them to further their careers. Specific requests focused on training in inclusive education and disability awareness as children with a disability often miss out on valuable learning due to parents keeping them at home rather than sending them to school.

Also, some teachers expressed a desire to build on strategies that teach them how to handle certain situations, including training in Management and Leadership skills and improved knowledge in how to govern and operate a school.

One teacher asked for training that would enable her to gain greater confidence and to increase her projection and teaching strategies in the classroom.

Another teacher particularly wants training in IT and Computer word processing so that he can further build creative skills and resources for classroom activities.

The teachers were also asked to reflect on previous training they had undertaken over the years since first being trained by KTF and to especially comment on training that they would like to see repeated. Some examples given were:

- Prior training provided was provided in Adult Literacy by Trish Davies, a volunteer from KTF.
- Mixed Mode Training was conducted by PNGEI (and co-delivered and funded by KTF) in 2017; as part of KTF's Teach for Tomorrow project. Some teachers were eligible for this training and as a result are receiving their certification (from the National Government) in the coming months.
- Some teachers had received professional development training by Julie-Anne Moon (another KTF volunteer).
- Women's Leadership Training was also received but that was more for home duties – teachers were unsure who provided this training.

- Other teacher spoke about developing their cross-motor training skills working with objects for hands-on learning, lesson plans, etc. They found more realia in training would be significantly helpful.

Finally, teachers spoke about some specific training programs that they would like to see introduced. Teachers talked at length about technology being a great influence in learning and discussed programs such as 'Flipped Learning' through the use of DVD's and laptops, providing a package for lessons broken down into Modules as follow-up learning.

Other teachers discussed Online Education, Skype through Microsoft Programs, Screen-Sharing and how effective it can be for distance education and used throughout many countries around the world. Teachers, however, identified the lack of internet-based learning in Papua New Guinea due to the early stages of developing networks and the ideology, which is still to be accepted, added to the lack of technology and equipment for perhaps many years to come.

Preparing for 1-6-6 Schooling Restructure

Most teachers spoke about the pending changes to the schooling system in PNG and had a rudimentary awareness of what was coming with the 1-6-6 restructure.

All teachers interviewed enthusiastically agreed that they would feel very confident to teach Grades 3-4 in junior primary school and would happily welcome the opportunity. All declared that they would love to teach Grades 3-4 if given the opportunity and were 'overjoyed' at the prospect.

The teachers did, however, discuss their concerns around whether they would eventually become recognised and accredited by the Government; and whether they needed to undertake and complete their FODE training in order to go on and attain their Diplomas.

Some of the teachers are currently undertaking their FODE studies at KTF's Kokoda College and completing their Grade 11 & 12 qualifications; those who weren't currently enrolled in FODE expressed a strong desire to commence their FODE studies from 2020 and to receive sponsorship from KTF or other parties.

Once they have all upgraded their FODE qualifications, these teachers would really like KTF to sponsor them for further studies such as their Diploma Courses when these are designed and rolled out to all elementary teachers.

Some teachers had already been instructed by Senior Standards Officers within the Provincial Department of Education to acquire finance and attend upcoming PNGEI Training in readiness to teach Years 3-4 in the event of being offered these roles. They have been recommended to approach

KTF for this finance. However, the researcher is of the understanding that these courses have not yet been designed by PNGEI and are not yet ready for delivery to teachers in these remote areas.

Many teachers stated that they would be ready to teach this level and are confident to do so, although they haven't taught this level as yet.

From the researcher...

I've laughed with these amazing and dedicated teachers, cried with them, felt their strength, seen their intense pride in their eyes and continue to be inspired by their passion.

They are resourceful combatting all odds under restricting elements and all the while providing a quality education for the next generation of tomorrow's leaders. Their visions are extraordinary as they develop the minds of their young students.

They are recognised and commended for their students' proven achievements and their own innovative language teaching skills, providing training and even writing books for other teachers to learn these important skills in the quest for quality teaching.

In a harsh and unforgiving environment in one of the remotest regions on Earth, their resourceful dedication enables them to use their natural surroundings to provide quality education in conjunction with their outstanding KTF training and community support.

KTF's training has developed a dedication and philosophy in these teachers with a priority on the quality of their students' learning, evident in their proud use of the KTF skills they have acquired, as well as their successful record of attendance.

Beyond all this, their key difficulty continues to be their struggle for recognition of their KTF training by the Government to attain their accreditations as the quality teachers they are and deserve so importantly. Nothing these focused teachers encounter brings greater frustration than this one factor.

These teachers aspire to complete their FODE studies and Diplomas, as well as pursue additional training in grammar (parts of speech), maths (algebra, formulas, geometry), language skills (phonics), children with disabilities, leadership and first aid to provide even more extensive quality education to their young students.

It is with a mind for their difficulties these tenacious teachers face and in support of their commitment to provide quality teaching, that I submit the following recommendations.

Personal Performance Appraisals

KTF teachers to complete Personal Performance Appraisals annually covering the following aspects:

- Level of stimulating and effective printed materials being received.
- What would assist them to deliver better quality education?
- Interaction with peers and colleagues to share knowledge and experiences
- Their own techniques or individual ideas they have added to their teaching skills.
- What assistance do they need to improve their skills?
- Where do they want to improve their careers to provide better education?
- What skills/training do they need.
- Which elements of their teaching give them the greatest confidence?
- What are their goals/visions?

KTF to evaluate these Personal Performance Appraisals on an annual basis and to support teachers to achieve their goals, undertake additional training and professional development, and to engage and educate partners on the gaps and pathways for educational systems improvement in these rural areas.

First Aid Training

In the interest of child safety, a First Aid Course be implemented as a component of Teachers' training, provided by a Health Worker. A First Aid Refresher Course could be included at 1-2 yearly intervals or in additional future training.

Professional Development & Learning

Additional training and professional development experiences should be created for the KTF teachers that focus on:

- Inclusive education and teaching children with disabilities
- Maths: algebra, fractions, geometry, formulas
- English: grammar, parts of speech, parsing, phonics
- Drawing

- Leadership, governance and management

Children with disabilities – teaching children with disabilities has been encountered throughout all these teacher’s experiences. It is evident that this skill is necessary to support the learning these children are missing out on. Parents are keeping these children at home rather than enabling them to attend school, however, this is essential training that can benefit these children.

Maths – has been identified as a significant weakness amongst most of the teachers interviewed with algebra, fractions, geometry and formulas the most requested in further training. Currently teachers are struggling with these concepts and, subsequently, only covering the basics of addition, subtraction, multiplication and division.

English – the grammar component is one of the immediate concerns of the teachers and requires significant more attention. The teachers showed concerns that they aren’t trained sufficiently to deliver this subject well. Further training in all aspects of parts of speech as well as parsing need to be considered as these concepts are vital for delivering this subject thoroughly and confidently.

Phonics is a successful subject warranting re-visiting. These quality skills can be expanded and developed further with much to be gained as well as developing it as a confidence builder.

Drawing – techniques are limited and improved drawing skills are necessary to enable teachers to deliver better drawing examples for students to follow. This may involve simple but effective drawing techniques only.

Leadership, Governance and Management – the teachers are proven in their everyday leadership skills in the classroom and their professional management of discussions with community leaders, parents, visiting groups, etc. Their skills would benefit from further training to uphold their standing in their communities and assist recognition of their professional level in pursuit of their accreditations.

Educational games

Implementing innovative board games as educational material for various subjects including maths and grammar will provide more opportunities for fun and engaging learning and activate children’s enquiring minds. It is an unorthodox method of learning in the classroom but is proven to be a sound learning platform stimulating retention of students’ knowledge.

Further fun-based learning activities such as word ladders, vowel flowers, true or false quiz games, etc, are also proven to be successful, especially when applied as a team games in the classroom. The teams can become very competitive and suddenly their learning increases.

True or false quiz games are also an easy resource as they don't require printing and can be improvised effectively for applying to any subject the students are revising.

Manual of Activities

A Manual of Activities is a very helpful quick reference for teachers as a 'go to' for resourceful and stimulating games and activities that don't require printing. These activities are also effective when designing lesson plans and co-ordinating different levels of learning.

This Manual of Activities would provide categories of activities for all grammar components as well as reading and writing.

Referring to the table of contents makes this Manual of Activities easy to follow as well as being a simple design according to chapters for the various parts of speech.

Glare on blackboard surfaces

In overcoming the difficulty of light shining on blackboard surfaces preventing children seeing what is written, woven or bamboo awnings can be fixed outside or woven panels fixed at each end of the blackboard.

Shelving in the classroom

It was an observation that there was valuable room taken up on floors which could be freed up more by having shelves on walls instead.

Teachers enjoy reading to their students with them sitting around them on the classroom floor, creating an easy atmosphere. This extra room would provide more reading area for classes as there are often extra students attending particular teachers' classes on parents' requests.