

Reviewing approaches to education for children with disabilities in Papua New Guinea

Summary of findings (May 2016)

Dr Maria Kett (Principal Investigator, and Assistant Director, Leonard Cheshire Disability and Inclusive Development Centre, UCL)

Dr James Aiwa (Senior Lecturer, School of Education, University of Goroka, Papua New Guinea)

Lorraine Wapling (Research Assistant, Leonard Cheshire Disability and Inclusive Development Centre, UCL)

Jeremy Goro (Lecturer, School of Education, University of Goroka, Papua New Guinea)

ABSTRACT

Results from a three year Australian Development Research Award investigating the extent to which the positive inclusive education policies in Papua New Guinea are being put into practice for children with disabilities.

Acknowledgments

This research was made possible by the efforts and support of many staff at the University of Goroka as well as the teachers, head teachers and parents of the study schools and Special Education Resource Centres.

Members of the fieldwork team included:

- Dr James Aiwa (Senior Lecturer, UOG)
- Mr Jeremy Goro (Lecturer, UOG)
- Ms Donna Malil (Lecturer, UOG)
- Mr Kele Yako (Lecturer, UOG)
- Mr John Hagio (Lecturer, UOG)
- Mr Ben Kilage (UOG)
- Mr Joe Kuman (UOG)
- Mr Wesley Lopele (ADRA Program Manager, PNG)

Table of Contents

METHODOLOGY.....	5
MAIN FINDINGS.....	6
PART 1 POLICY AND THE ROLE OF SPECIAL EDUCATION RESOURCE CENTRES	6
<i>Identification and placement</i>	8
<i>What SERCs are providing</i>	9
<i>Gender inequality</i>	11
PART 2 TEACHER AND SCHOOL PREPAREDNESS	15
<i>Teacher knowledge</i>	15
<i>Teacher attitudes</i>	17
<i>Teacher practice</i>	19
<i>Teacher training</i>	21
<i>School preparedness</i>	24
CONCLUSION.....	28

Figures and tables

FIGURE 1 COMPARISON OF STUDENT DATA BETWEEN SCHOOLS & SERCs.....	9
FIGURE 2 GRAPH SHOWING DISTRIBUTION OF SERC SERVICES	10
FIGURE 3 CHART TO SHOW IMPAIRMENT DISTRIBUTION IN SERCs.....	11
FIGURE 4 CHART SHOWING GENDER DISTRIBUTION AMONGST SERC STUDENTS.....	12
FIGURE 5 GRAPH SHOWING PERCENTAGE OF TEACHERS TRAINED IN SPECIAL EDUCATION	12
FIGURE 6 GRAPH COMPARING TEACHER EXPERIENCE WITH PREPAREDNESS TO TEACH.....	15
FIGURE 7 GRAPH ILLUSTRATING RESOURCE AVAILABILITY	25
FIGURE 8 CHART SHOWING THE AVAILABILITY OF SUPPORT STAFF	25
FIGURE 9 GRAPH SHOWING BUDGET ALLOCATIONS	26
FIGURE 10 GRAPH SHOWING SCHOOL SAFETY BY GENDER.....	27
TABLE 1 SCHOOLS & SERCs INCLUDED IN THE RESEARCH.....	5
TABLE 2 STUDENT ENROLLMENT FIGURES	8
TABLE 3 PREPAREDNESS OF SERC TEACHERS FOR CHILDREN WITH DIFFERENT IMPAIRMENTS.....	13
TABLE 4 VIEWS ABOUT THE STATUS OF SERCs	14
TABLE 5 TOTAL PROJECTED TEACHER EMOLUMENTS BY LEVEL (K'000), 2005-2014, SELECTED YEARS	14
TABLE 6 TEACHER ATTITUDES TOWARDS INCLUSION	17
TABLE 7 ASSUMED ACADEMIC IMPACT OF INCLUSION.....	18
TABLE 8 TEACHER VIEWS ON PARENTAL ATTITUDES.....	18
TABLE 9 TEACHER WILLINGNESS FOR INCLUSION	19
TABLE 10 TEACHER VIEWS ON PRACTICAL INCLUSION	20
TABLE 11 TEACHER COLLEGES INCLUDED IN THE STUDY	22
TABLE 12 PERCEPTIONS OF SCHOOL READINESS FOR INCLUSION	26

Summary of findings

This study aimed to review educational approaches for children with disabilities in Papua New Guinea (PNG) and to analyse the extent to which their right to education is being upheld. Whilst the government does support improved access to inclusive education (IE) through its policies, and in fact has signed a number of human rights treaties to support these rights, such as the UN Convention on the Rights of Persons with Disabilities and the Convention (CRPD) and on the Rights of the Child (CRC), many challenges remain. So far there is little national level evidence or evaluation of the effectiveness of work by government or other service providers in the provision of education for children with disabilities in PNG. This research found that despite some very forward looking and inclusive policies on paper that support the education of children with disabilities, in practice these have had the unintended consequence of dis-incentivising mainstream schools from including children with disabilities in their classes. Despite good policy intentions, the government does not appear to be investing in – or indeed prioritizing - the education of children with disabilities.

Research was undertaken over the course of three years (2013-2016) by Leonard Cheshire Disability and Inclusive Development Centre, University College London, in collaboration with the School of Education, University of Goroka, to exam issues linked to the knowledge, awareness and preparedness of primary school level heads and teachers in the context of mainstream and special education; how prepared the system is to accept, accommodate and support the education of children with disabilities; and the level of engagement that exists between mainstream schools, SERCs and parents of children with disabilities.

Methodology

The study was carried out in the four regions of PNG, with one province represented from each (NCD, Simbu, Madang and Rabaul). In total, data was collected from 12 primary schools, four SERCs, and seven teacher training colleges.

Table 1 Schools & SERCs included in the research

NAME OF INSTITUTION	PROVINCE	REGION
Gon Primary School	Simbu	Highlands
Migende Primary School		
Mirane Primary School		
Callan Mingende SERC		
Graged Primary School	Madang	Momase
Lutheran Day Primary School		
Gum Primary School		
Madang SERC		
Hohola Demonstration Primary	National Capital District	Southern
Wardstrip Primary		
Eki Vaki Primary School		
Port Moresby Cheshire Disability SERC		
St Joseph's Primary School	East New Britain Province	New Guinea Island
Kokopo Primary School		
Vunavidir Primary School		
Callan Rabaul SERC		

A total of 244 teaching staff (mainstream and special education) were surveyed using a standardised questionnaire on teacher knowledge, attitudes and practices (KAP) around education for children with disabilities. This was complemented by focus group discussions with parents of children with disabilities and a series of key informant interviews with education sector specialists (including from the National Department of Education and primary teacher training colleges).

Main findings

Part 1 Policy and the role of Special Education Resource Centres

The first area of analysis focused around the question:

what is the current context in which inclusive and special education is being implemented and what educational facilities are involved in its delivery.

The research found that PNG has a range of progressive plans and policies that acknowledge the inclusion of children with disabilities within education. There is at least some recognition of the needs of children with disabilities included in:

- Papua New Guinea Education Act No 13 of 1995
- Papua New Guinea Department of Education (2004): Achieving a better future: National Education Plan (2005-2014)
- PNG Universal Basic Education Plan 2010 – 2019
- National Special Education Plan and Policy and Guidelines for Special Education (1993) - updated Feb 2003: National Special Education Plan 2004 – 2013
- Papua New Guinea National Policy on Disability (2008) (Act in draft)

And PNG is a State Party to:

- Convention on the Rights of Persons with Disabilities (2013)
- Convention on the Rights of the Child (domesticated as Lukautim Pikininni Act, 2009)

Most of the detailed information and planning however is found in the National Special Education Plan (1993), updated with a number of directives in 2003. The most significant features of the Special Education Plan are:

- That where feasible, children with special needs should attend regular schools along with their peers;
- That teachers be trained through pre-service and in-service courses; and

- That the NDOE allocates funding for Special Education activities (teachers salaries; operational grants, teaching resources etc.).

One of the most important aspects of this plan was the mandating of Special Education Resource Centres (SERCs) as the main mechanism through which the education of children with disabilities would be supported. In particular it outlined that the:

‘...**primary** role of a resource centre is to in-service and support field teachers in their role as inclusive teachers...’ (p7 National Special Education Plan 2004-2013).

This is a clear indication that the main role of SERCs would be to support teachers as they implement inclusive education for children with disabilities. It was not the policy intention to have SERCs become the primary institution responsible for educating children with disabilities. Alongside supporting mainstream teachers the plan also outlines a range of other services which SERCs can opt to provide (many of which are related to supporting identification and treatment of impairments) although it falls short of providing a standard or mandated list of required services. As will later be shown, this has led to fragmented provision and uncertainty from teachers and parents over what they can expect from SERCs which makes it a difficult system to monitor.

Whilst the original Special Education Plan was well ahead of its time in terms of the global inclusive education movement, it is now twenty three years old and is in urgent need of updating. Much of the language and parts of the provisioning are not in line with a rights approach and requires review for compliance with the CRPD.

Identification and placement

Despite the overarching principle for children with disabilities to be educated in the mainstream alongside their non-disabled peers this research found head teachers reporting extremely low numbers of children with disabilities in their schools:

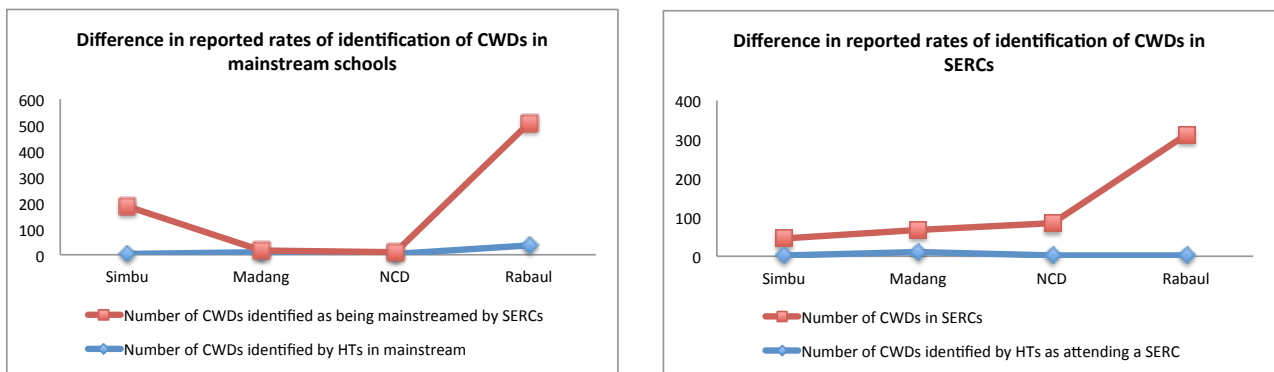
Table 2 Student enrolment figures

Numbers of students with disabilities identified in mainstream classes				
	Simbu	Madang	NCD	Rabaul
Non disabled students	2324	2043	6130	2187
Disabled students	6	7	3	35
Total	0.26%	0.34%	0.05%	1.60%

Although the research was not able to verify the accuracy of these numbers, by screening students, it is likely that schools actually have much higher numbers of children with disabilities than is being reported. This indicates in part that heads of schools have very little experience in how to disaggregate child enrolment data by disability and are most likely not keeping track of this kind of information. Direct training of head teachers in how to identify and record children with disabilities will be needed to support the accurate completion of the new (2015) school census form. The research also suggests that part of the reason for low numbers in mainstream schools is because most children with disabilities are either not going to school at all or are going directly to the Special Education Resource Centres (SERCs).

This research indicates that there may be a serious disconnect between mainstream schools and SERCs in the way that children with disabilities are registered. It is not clear which facility (mainstream schools or SERCs) takes primary responsibility for registering children as illustrated by the following graphs:

Figure 1 Comparison of student data between schools & SERCs

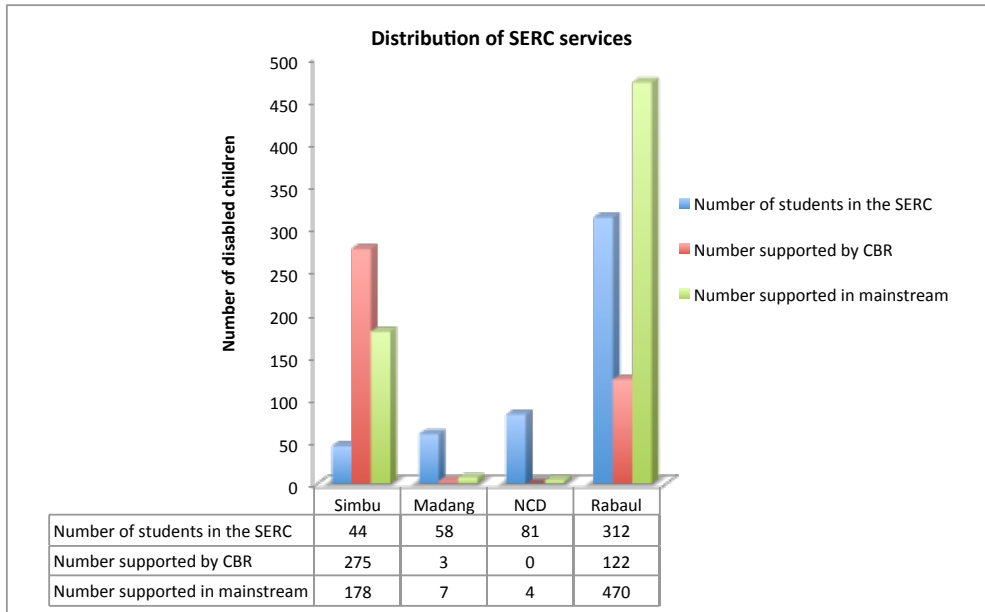


There should be a greater level of consistency in the rates of children reported as being in mainstream schools or registered with SERCs between both head teachers and SERC coordinators. This implies that many children who are reported as attending SERCs are not being formally registered by their local mainstream school – hence head teachers are largely unaware of how many children with disabilities are attending SERCs. If children with disabilities are not registered by mainstream schools this reinforces the idea that children with disabilities are only to be found in special education facilities and shifts the focus of the education system away from inclusion towards segregation (which is not what the policy intends).

What SERCs are providing

The research found quite a wide variation across the provinces in terms of how many students each SERC supports and what kind of educational provisions they are providing. In Rabaul for example most of the students are being supported in mainstream schools whilst in Simbu most students are supported via CBR outreach programs. NCD and Madang support most of their students in the SERC although overall Rabaul SERC has the highest number of students in the SERC.

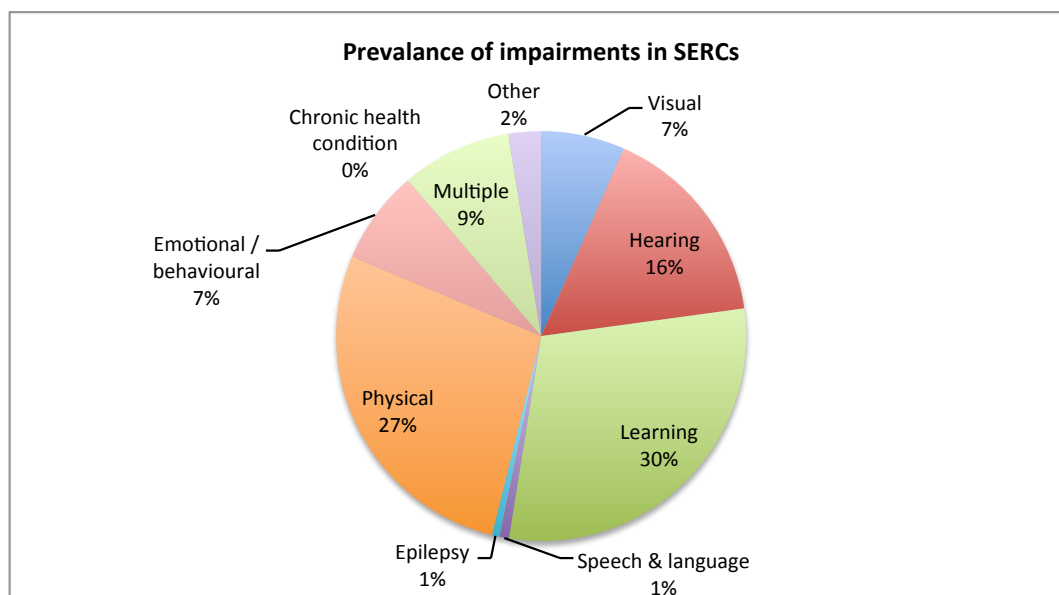
Figure 2 Graph showing distribution of SERC services



This variation reinforces the problem noted in the policy review that without a mandated list of required services SERCs are able to operate independent of any minimum set of standards.

The SERCs involved in this study are supporting children with quite a wide range of different impairments. However, no child was recorded as having a chronic health condition by SERC coordinators although one parent reported in the focus group discussion that their child had a chronic condition which calls into question how this category is understood by SERC staff. The categories defined in this breakdown were provided by University of Goroka staff as being familiar to staff in schools.

Figure 3 Chart to show impairment distribution in SERCs



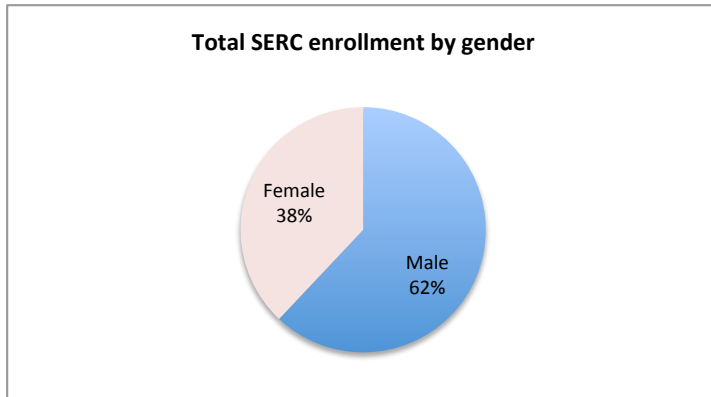
It is very interesting to see that children with learning disabilities are reported as being the most common followed by those with physical impairments. Together they make up almost 60% of the total. It is surprising to have high numbers of physically disabled children in special education given that on the whole most would require very little accommodation. General environmental barriers (within schools and communities) could be working against their inclusion and/or there may be some additional issues around how children are being assessed and around discrimination which needs further research. More work could also be done to understand what the term 'learning disabilities' is actually being used to describe and how children are assessed as having 'learning disabilities' to help determine why the rates seem to be particularly high.

Gender inequality

One significant area of concern raised by this research has been the extent to which girls with disabilities are being discriminated against by the current provision. Only 38% of children enrolled in SERCs are girls. Our research has not had time to understand why this gender difference is so pronounced but we would suggest that

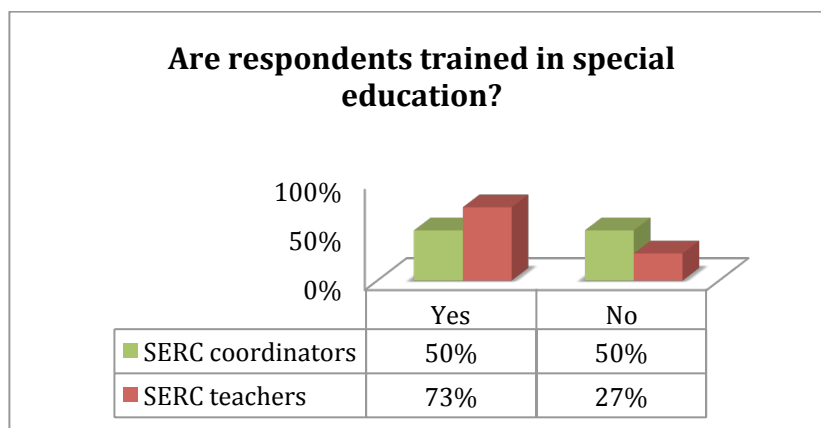
any future plans ensure that whatever barriers exist for girls with disabilities are more clearly identified and mitigated.

Figure 4 Chart showing gender distribution amongst SERC students



Given the mandate SERCs have to provide specifically for the needs of children with disabilities and the fact mainstream schools (and teachers) are encouraged to rely on support from SERCs the research expected to find a concentration of skilled personnel and materials in SERCs. However, we found that although SERC staff were on the whole more likely to be qualified in special education, around 1/3rd had no specialist training at all:

Figure 5 Graph showing percentage of teachers trained in special education



The following table illustrates that on the whole SERC teachers are not feeling very confident about teaching children with different impairments which was also confirmed during key informant interviews.

Table 3 Preparedness of SERC teachers for children with different impairments

I feel relatively prepared to teach children with...	SERC teachers
Visual impairments	11%
Hearing impairments	15%
Learning disabilities	17%
Speech & language impairment	10%
Epilepsy	6%
Physical impairments	16%
Chronic health conditions	7%
Emotional, behavioural disorders	13%
Multiple impairments	7%

Parents too often mentioned that although they were really grateful for the care and attention paid to their children by SERC staff they worried that they were not being supported enough to be able to attend to the specific learning needs of their children.

We would like to see that the SERC has well trained teachers in order for them to help our children. We are not saying that they are not working well but to help them improve their work (Focus Group Discussion, ENB)

To some extent, parents and teachers are unsure about the specific role of the SERCs and feel that more needs to be done to standardise the services and to raise awareness over their existence. From a policy perspective it is also true that SERCs as an educational facility are absent from mainstream educational plans (for example they are not described in either the current UBE plan or the National Education Plan). This suggests once again that SERCs function mainly as special education facilities for children with disabilities rather than being a resource to support inclusive education for mainstream schools and teachers.

Table 4 Views about the status of SERCs

Views on the status of SERCs	SERC teachers
SERC teachers are well supported by the NDOE to fulfil their role	50%
The pay structure is appropriate for the recruitment and retention of SERC teachers	23%
There are sufficient training opportunities to make the job of a SERC teacher a good career option	46%
The SERC has sufficient resources to meet the needs of all its current students	31%
The role of the SERC is well understood by parents	42%

One consequence of the SERCs absence from mainstream education policies is a lack of resourcing and investment (as shown partly by the teachers lack of preparedness). In reality investment in special education teachers was never *expected* to grow in the National Education Plan (2005-2014). Over the course of nine years resources identified for special education teachers was expected to *reduce* by 180% in comparison to other teacher positions:

Table 5 Total projected teacher emoluments by level (K'000), 2005-2014, selected years

Level	2005	2008	2011	2014
Elementary	70, 650.9	94,795.4	115,427.9	129,914.0
Primary	252,028.2	256,741.9	264,155.8	278,053.9
Secondary	56,315.3	55,763.3	59,634.1	66,365.9
Vocational	13,323.2	15,423.3	17,854.4	20,668.6
Technical	7,318.4	5,980.0	6,154.9	7,125.1
Teachers Colleges	4,767.1	4,767.1	4,767.1	4,767.1
Special Education	637.9	637.9	637.9	637.9
Total	409,693.5	438,761.3	473,284.5	512,185.0

[Source: NDoE, 2004, p.114]

The picture this research identified therefore is one of a chronic lack of investment over time which has led to SERCs struggling to retain and develop good quality staff;

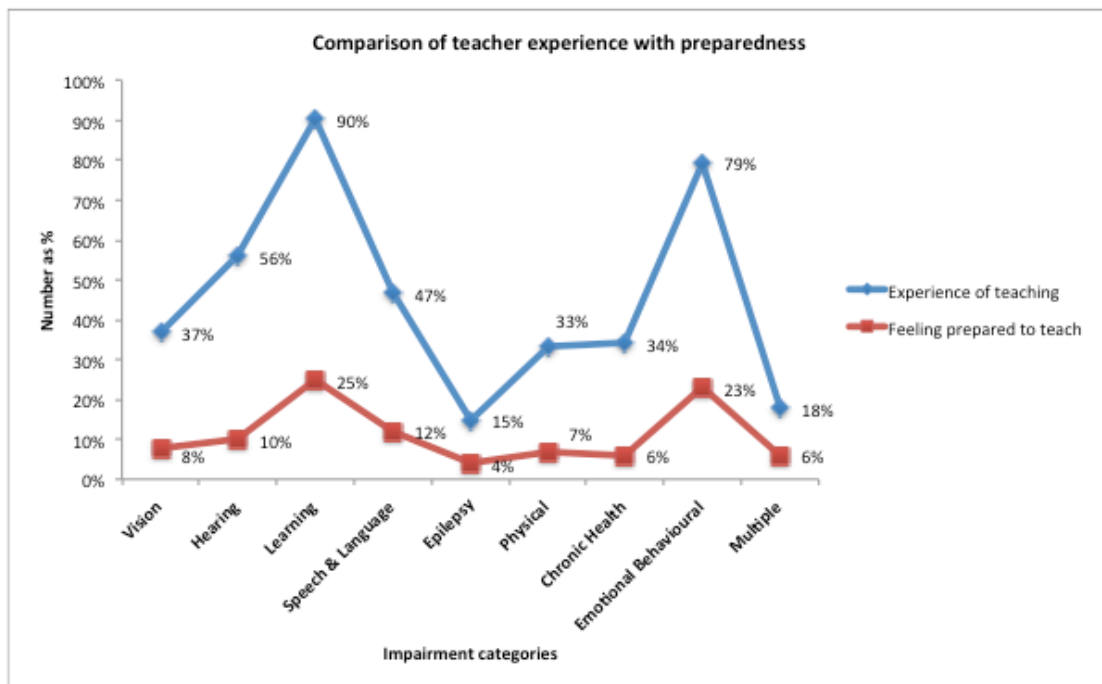
develop specialist resource materials; provide in-service training for schools and colleges; and maintain centres that provide physical, communication and cognitive access for all children (and staff).

Part 2 Teacher and school preparedness

The second area of analysis focused on identifying the extent to which mainstream teachers feel prepared and supported to include children with disabilities in their classes.

Teacher knowledge

Figure 6 Graph comparing teacher experience with preparedness to teach



This table illustrates a number of key findings from much of the teacher / head teacher knowledge, attitudes and practice survey.

There are at least some teachers and heads in the system who have encountered children with a range of different impairments. But the majority of experiences seem to relate to those with 'learning disabilities' and 'emotional behavioural disorders'.

They are least likely to report having experience of children with epilepsy, multiple impairments or chronic health conditions. This raises some interesting points around how children are labelled and the extent to which teachers are aware of some types of disabilities amongst their student. This research was not able to determine definitively how teachers are defining children with 'learning impairments' or 'emotional behavioural disorders' but anecdotal evidence suggests that teachers feel more familiar with these labels and are not necessarily associating these conditions with disability. Rather they use them more in relation to children who are struggling to keep up with the curriculum (perhaps because they have language difficulties) or who are less well behaved than the norm. However this area requires more detailed investigation.

Overwhelmingly the graph illustrates that despite reporting experience with children with a range of different impairments there are very few mainstream teachers who feel confident and prepared to teach children with disabilities in their class. In fact 88% of mainstream teachers agreed that *'(they) do not have the knowledge and skills required to teach students with disabilities'*.

Qualitative analysis indicated that 71% of mainstream teachers had heard of inclusive education, either from their training or via their own reading. However, that leaves a sizeable 29% who claim not to have heard about inclusive education. When asked to describe what they considered inclusive education to be there were mixed results. Some used rights based phrases like: *'children with disabilities have a right to learn'*; and *'(it's about) creating a conducive and inclusive environment for children with disabilities to learn'*. But others were much more focused on the impairment stating things like: *'(it's about) screening children at an early age to help identify needs'*; and *'teachers must be specialised in specific areas of disabilities'*. On the whole the responses were generalised, and what is striking is that all responses focused on children with disabilities. Some were actively suggesting it was not part of their responsibility at all: *'I have heard of inclusive education but (I'm) not really interested in it...'* (Mainstream teacher).

Overall qualitative information supported the concern that mainstream teachers feel, or believe, they do not have the training or specialist skills needed to effectively include children with disabilities in their classes. This could be leading towards less positive ideas about what teachers could be doing to develop inclusive learning strategies, deferring instead to lack of training or support.

Teacher attitudes

Generally, despite the above information teachers and head teachers hold a positive *belief* in the mainstreaming of children with disabilities from the perspective of social inclusion. For example:

Table 6 Teacher attitudes towards inclusion

Attitudes towards inclusion	Respondent groups			
	Mainstream teachers	SERC teachers	Head teachers	SERC coordinators
I believe that inclusion facilitates socially appropriate behaviour amongst all students	88%	85%	92%	100%
I believe that any student can learn in the regular curriculum of the school if the curriculum is adapted to meet their individual needs	93%	100%	100%	100%
I believe that students with disabilities should be taught in special schools	63%	54%	33%	50%

These responses show very high levels of support for the concept of inclusion but when asked whether children with disabilities should be taught in special schools there were still many people who agreed that they should be segregated (63% of mainstream teachers and 54% of SERC teachers).

Neither teachers nor head teachers expressed particular concern that the overall standards of the school would be negatively impacted by the inclusion of children with disabilities, although just over a quarter of teachers and head teachers agreed

that the academic achievement of non-disabled students could fall as a consequence of having a child with a disability in the class (teachers – 29%; head teachers – 25%).

Table 7 Assumed academic impact of inclusion

Academic impact of inclusion	Respondent groups	
	Mainstream teachers	Head teachers
The overall academic standards of the school will suffer	18%	8%
The academic achievement of non-disabled students will be affected	29%	25%

By contrast, teachers and head teachers were not so positive about the attitudes of parents. The following table illustrates that many teachers and head teachers believe parents do not value education for children with disabilities.

Table 8 Teacher views on parental attitudes

Views on parental attitudes	Respondent groups	
	Mainstream teachers	Head teachers
Parents think children with disabilities should not go to school	34%	33%
Parents generally think children with disabilities cannot learn	44%	50%
Parents generally think it is not worthwhile for children with disabilities to learn	40%	58%

Again, one limitation of this research was that we were not able to carry out attitude surveys with parents. The focus group discussions held with parents suggested that family attitudes towards education for children with disabilities varied but certainly those who had placed their children in SERCs were very positive about the benefits of education:

I want my child to be an educated person and earn income. This is my dream of my child to live just like the other able person in the community. (Focus Group Discussion, Madang)

The children should be educated and get a job as any other normal children (Focus Group Discussion, NCD)

Our children must be competitive and go to school. (Focus Group Discussion, Simbu)

Teacher practice

The questions that were asked around practice produced very mixed and sometimes contradictory information. Given the very low reported numbers of children with disabilities in mainstream schools it is likely that one influential factor in this is teachers lack of practical experience. It is possible that most of the teachers were responding to questions on practical inclusion strategies from a theoretical perspective.

In fact a limitation of this research has been that no classroom observations took place so it has not been possible to verify if there are any links between what teachers say they do and what actually happens in their classrooms. It would be extremely useful for further research to be done to observe the how teachers are implementing inclusive practices.

Generally teachers once again showed relatively positive views around their willingness to accommodate the learning needs of different children in their classes.

Table 9 Teacher willingness for inclusion

Views on willingness	Mainstream teachers
I am willing to adapt the curriculum to meet the individual needs of all students regardless of their ability	92%
I am willing to adapt the assessment of individual students in order for inclusive education to take place	93%

However the following set of responses show high levels of concern about what inclusion could imply for classroom management:

Table 10 Teacher views on practical inclusion

Views on practical inclusion	Mainstream teachers
I will have to do additional paperwork	84%
My workload will increase	82%
It will be difficult to give equal attention to all students in an inclusive classroom	55%
I will not be able to cope with students with disabilities who do not have adequate self-care skills	64%
I do not have the knowledge and skills required to teach students with disabilities	88%
My performance as a classroom teacher will decline	18%

What is very interesting in this set of results, aside the fact teachers express relatively high levels of concern around the perceived impact of inclusion is that few teachers considered that any of these challenges would actually impact on their performance as a classroom teacher (18%).

This is important because it highlights a disconnect teachers seem to have between their role in providing knowledge and their role in reducing barriers to learning. The fact few teachers considered that not having the knowledge and skills required to teach children with disabilities had an impact on their performance as a classroom teacher suggests that they are not feeling much of a responsibility for the learning outcomes of children with disabilities (see the highlighted results in the table above).

This may in fact be more generalizable to how teachers view their role in the learning process of all children but perhaps it is exacerbated by underlying prejudices and stigma towards people with disabilities and overall negative expectations around their capacity to learn.

This is in line with the qualitative analysis. One respondent from Madang for example noted that many mainstream teachers do not consider children with

disabilities placed in their classes as requiring anything different to the norm: *'...“they are just like any other child”... they [teachers] have misunderstood the concepts of ‘special needs’ and ‘inclusion’...many feel that inclusion just means that the child is in school, without any need for the teacher to do anything specific, or give any additional support...’* (SERC Teacher, Madang). Another teacher mentioned that *‘[they] have no time to deal with the needs of slow learners or learning difficulties. They ignore such children and move on with teaching to meet the teaching programs.’* suggesting that mainstream teachers feel under pressure to teach to the curriculum rather than to the needs of the children.

Focus group discussions with parents of children with disabilities also noted that parents were not happy with the levels of attention and support their children were receiving from mainstream teachers. There were several reported cases of children being withdrawn from mainstream schools because parents felt their children were being ignored, or their needs were going unmet.

‘Children transferred to mainstream schools are not being followed up by the teachers in the SERC schools creating more problems for these children with disabilities’ (NCD focus group meeting)

Further, when asked to list the most important factors for implementing inclusive education the majority of teachers mentioned the need for teacher aides / support staff to provide assistance to children with disabilities (or sometimes to them as class teachers although less often) in mainstream classes in order to facilitate learning.

Teacher training

To triangulate the findings from the teachers and head teachers study, fourteen semi-structured interviews were conducted with senior staff from seven teachers colleges across PNG, chosen at random.

Table 11 Teacher colleges included in the study

Institution	Location
Madang Teachers College	Madang
Balob Teacher College	Lae
PNG Education Institute	Port Moresby
Sacred Heart Teachers College	Bomana
Holy Trinity Teachers College	Mt Hagan
Melanesian Nazerene Teachers College	South Waghi
Simbu Teachers College	Simbu

All colleges said they covered inclusive education as a mandatory module in their Diploma in Primary Teaching course. Most (n=6) assigned 3 credit points (out of a total of 150) to this module, representing 2% of students study time. Only one college assigned 5 credit points (Holy Trinity College, Mt Hagan). The average number of lecturers across the colleges trained to teach special and inclusive education is 3 (total number 19). Where reported on, most lecturers were trained in inclusive and special education via University of Goroka (n=10) with a small number receiving training via the Callan Institute (n=2).

Overall, most people did not differentiate between inclusive or special education. When asked questions about inclusive education all the respondents described courses which focus on children with disabilities. Inclusive and special education therefore has come to mean any measures taken by teachers to include children with disabilities in mainstream classes.

Aside from PNGEI (the only college in our survey that runs a separate Diploma in Inclusive and Special Education [in-service] which started in 2016), the content of the inclusive and special education modules described all focus on children with disabilities. Although the exact nature of the content varied most contained elements of identification (or screening); causes of disabilities (diseases, prevention, rehabilitation); sources of support, and assistive technology; adapting the classroom; and peer tutoring techniques.

The most commonly cited source for guidance and information on the content of the module was the material provided to colleges by the NDOE called PASTEP (Primary and Secondary Teacher Education Project). PASTEP was a government / DFAT collaboration operating in the late 1990s. One of the units (Unit 5) was specifically focused on Special Education. Other than PASTEP lecturers mentioned sources such as the internet and their own studies as forming the basis of their course.

There are a number of issues this raises – the PASTEP module was designed as a special education unit not inclusive education one, but it is being used as the basis for the current inclusive education/special education curriculum. It is not in line with current rights commitments and therefore the language and terminology is outdated. Much of the focus is on the medical aspects of impairments (how to run tests to identify impairments etc) with little specific detail around the pedagogical implications of impairments. It also relies a lot on teachers being able to access services like assistive technology, classroom aides, adapted teaching and learning materials.

There is a clear link therefore between what teachers are saying about their level of preparedness and what is being provided to them during pre-service training. Inclusive education is being conflated with special education (it has come to mean the same thing) and there is too much focus on impairments at the expense of advice around how to adapt pedagogy. There is little in the way of information on how to work with SERC staff or other teacher aides or where teachers can go to get more support and advice.

Overall this research finds that inclusive education should be given a higher priority across the whole teacher education curriculum and elements that focus specifically on children with disabilities given more time and detail around the specific pedagogical needs of the children; the referral process teachers should invoke if they suspect a child has a learning need; and how to work with teacher aides and adapted teaching and learning materials. Putting inclusive education together with special

education in one separate module worth just 2% of students study time, confuses and devalues the concepts.

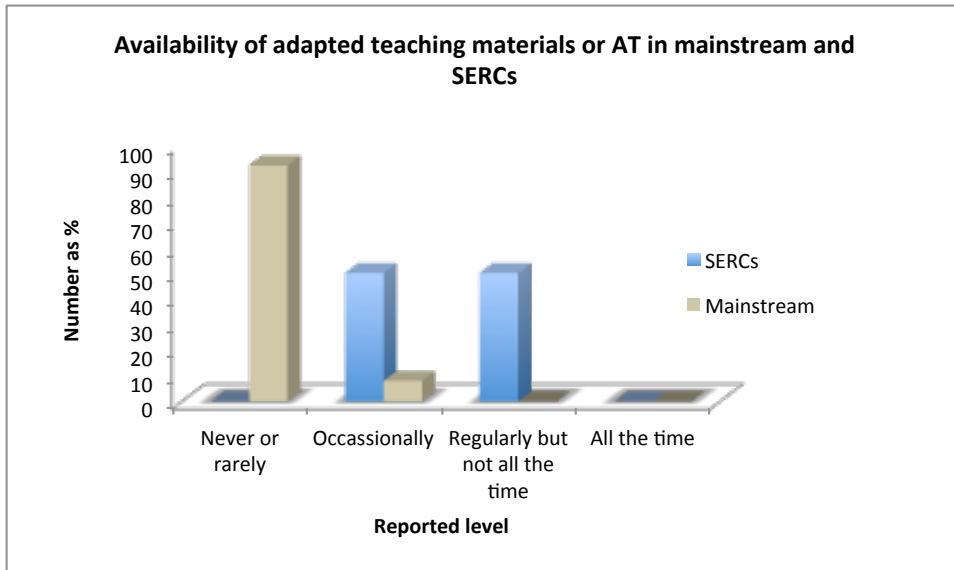
School preparedness

Teacher preparedness is impacted by more than just the individual factors noted above. The external environment, including the resources available, the infrastructure and the general working conditions also affect preparedness. This research found several areas of weakness in the external environment that are making it difficult for teachers to implement inclusive education.

In order for inclusive education to be effective for children with disabilities there is some need to provide mainstream schools and teachers with targeted resources and support. This could for example take the form of adapted teaching and learning materials; additional capitation grants for children with disabilities; or additional support staff. This research found that schools lacked access to all of these support mechanisms and additionally many SERCs also lacked support.

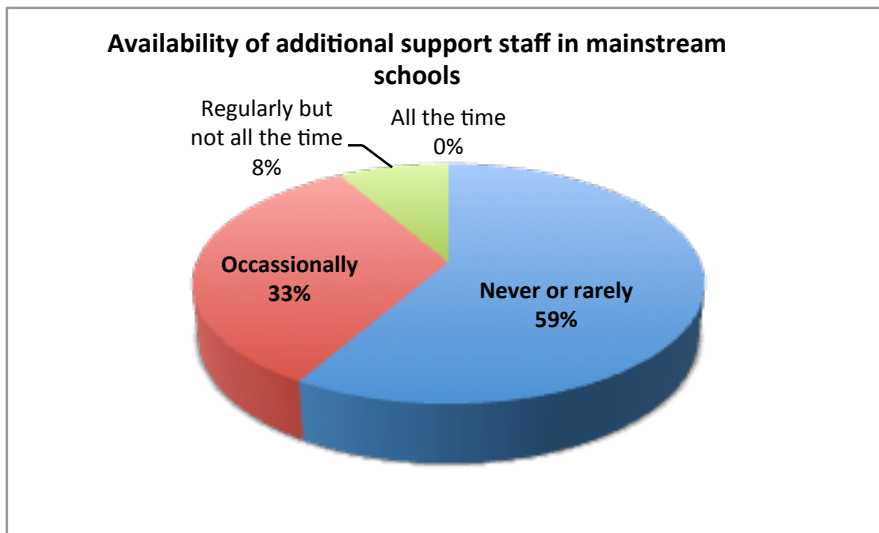
For example, the following graph shows that the mainstream schools in this study never or rarely have adapted materials or access to assistive technology. It also shows that although SERCs do have more access to this kind of support they do not do so on a permanent basis. Even SERCs do not have access to adapted materials and assistive technology all of the time.

Figure 7 Graph illustrating resource availability



The next graph shows that for the mainstream schools in this study, additional support staff are rarely or occasionally available to support mainstream teachers with only 8% reporting that they were available on a regular basis.

Figure 8 Chart showing the availability of support staff



Teachers and head teachers expressed concerns about the level of school readiness for inclusion of children with disabilities. There is obvious concern from head teachers that their buildings will not be accessible to some students with disabilities (92%) – the lack of adequate infrastructure is also a concern noted by parents and

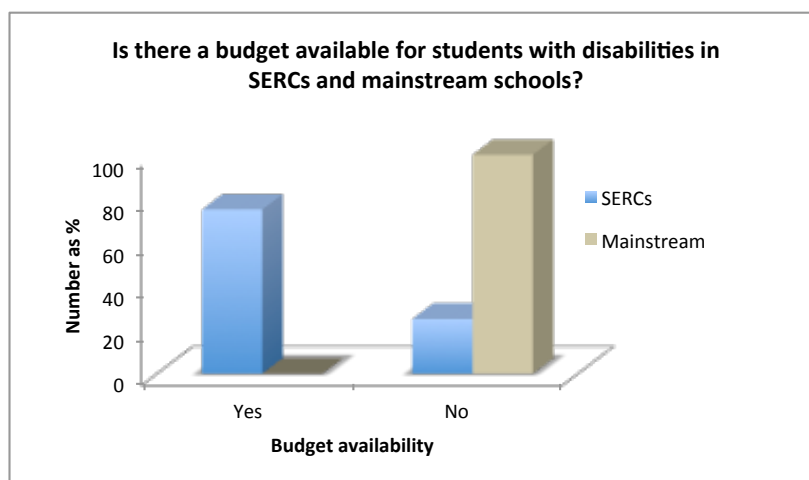
SERC staff. Both teachers and head teachers are concerned that there will not be adequate resources or specialist teachers available (teachers – 76%; head teachers – 83%) nor will there be adequate special education instructional resources (teachers – 66%; head teachers – 83%).

Table 12 Perceptions of school readiness for inclusion

School resourcing for inclusion	Respondent groups	
	Mainstream teachers	Head teachers
My school will have difficulty in accommodating students with various types of disabilities because of inaccessible infrastructure	73%	92%
There will be inadequate resources or specialist teachers available to support inclusion	76%	83%
My school will not have adequate special education instructional materials and teaching aids	66%	83%

Specific funds to support the learning requirements of children with disabilities in the study schools are not available at all for children who are in mainstream education as shown by the following graph chart. Funding for children with disabilities is only available through SERCs (and even here there may not be specific funds available).

Figure 9 Graph showing budget allocations



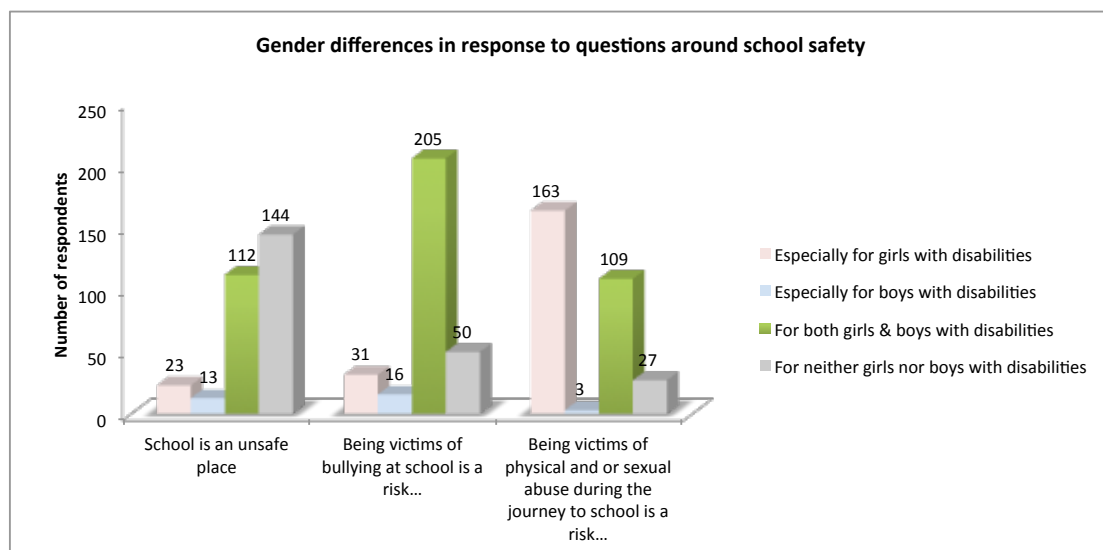
This creates a potential disincentive to mainstreaming children with disabilities if the only way they can get their specific learning needs supported is via the SERC. Incentives have to be created in the mainstream system if children and their parents are to feel satisfied that they are getting access to the most appropriate learning support.

Finally teachers and parents raised serious concerns about safety and general acceptance of children with disabilities in the mainstream system, most especially for girls.

32% of teachers felt that children with disabilities would not be accepted by their non-disabled classmates and head teachers, and parents raised discrimination and stigma as key reasons why children with disabilities were being placed in SERCs rather than mainstream schools.

I want my child to remain in the SERC to avoid discrimination in the mainstream school. (Focus Group Meeting, NCD)

Figure 10 Graph showing school safety by gender



The graph above shows clearly that that just over half of the respondents believed that school was unsafe for children with disabilities (n=148), with girls being slightly

more at risk than boys. Most respondents also felt that children with disabilities were at risk of bullying (n=252), again with girls being at higher risk than boys.

Where there is a very pronounced gender difference is in the response to the question of whether children with disabilities are likely to be victims of abuse on the journey to school. In this case girls with disabilities were judged to be at significantly increased risk in comparison to disabled boys (n=163). There are clearly concerns held by mainstream and SERC teachers about the relative safety of children with disabilities in education but most especially for girls. Something that needs more research.

Conclusion

This study aimed to review educational approaches for children with disabilities in Papua New Guinea (PNG) and to analyse the extent to which their right to education is being upheld. Whilst the government generally supports improved access to inclusive education through its policies this study has shown that numerous challenges around implementation remain.

Although current policies are on paper quite comprehensive, the research identifies a number of dis-incentives to inclusion at the school level. These include the focus on SERCs to deliver education for children with disabilities. While SERCs are necessary to support inclusion, they need to be seen as an education **resource**, rather than, as currently happens, the preferred option for children with disabilities. The current focus means mainstream schools are not resourced to support inclusive education; and teachers are not adequately trained to support inclusion. Moreover, the policy needs to be revised and brought into line with international human rights commitments. The lack of government oversight and management of SERCs has led to fragmented and unequally distributed services, and even a lack of specialist teachers in the SERCs. Note for example, that around 30% of SERC teachers interviewed had not had any special education training.

It is also difficult to get clarity on the actual numbers of children with disabilities in mainstream schools. The data shows very low numbers of children identified in mainstream schools, and almost no overlap in numbers of children with disabilities in mainstream schools and those registered in SERCs. This could be as a result of the current data collection methods whereby schools are asked to segregate the numbers of children with disabilities as being either in the mainstream or in the SERC; or it could be that teachers simply have no idea how – and no incentive to – identify children with disabilities in their classes.

This research shows that although teachers are receptive to the idea of inclusion of children with disabilities in mainstream classes, they feel they lack the knowledge and skills to teach children with disabilities. On examination of the approaches to special/inclusive education in the pre-service teacher training curriculum, this perhaps can be attributed to the focus on identification and assessment of impairments in teacher training. Moreover, the curriculum is not standardised, the module is worth few credit points, and tends to focus on assessing the child's medical condition (the 'problem'), rather than the difficulties the child may be having with learning and the measures the teachers can take to alleviate these difficulties, including appropriate referral pathways and support.

Two further significant challenges were identified: how inclusion is understood; and teacher pedagogy. Our findings show that whilst PNG has a huge diversity of learners, current approaches to inclusion tend to focus on disability ('special/inclusive education') rather than the diversity of learners in PNG (ethno-linguistic groups; disadvantaged children; remote and rural children etc.). If the definition of inclusion was widened to encompass this complexity it is likely to facilitate inclusion more broadly.

The second challenge is more complex and has to do with how knowledge is seen as being transmitted, as well as the curriculum used to guide this transmission. This research suggests that even if teachers have had some training in inclusive/special education, they still perceive the barriers to education as being with the child, not

the teacher. This may be how learning traditionally happens in PNG but it leads to a deflection of responsibility around learners which is problematic for all children, but especially those who may need specialised support. Given current debates around the curriculum and a child centred approach, teachers need to be taught how to work within the current pedagogical system to ensure diverse range of learners can be included. More research is needed on the specific challenges learners with a range of impairments face in the mainstream class – for example, children with hearing impairments.

Recommendations that support the removal of dis-incentives include reviewing the current Special Education Policy and data collection methods; revise current teacher training to develop broader understandings of inclusion and move away from the focus on impairments; improvements to the general inspection process to mainstream inclusion into school-focused assessments; and stronger collaboration and cross sector linkages to move away from seeing children with disabilities as primarily the responsibility of the education sector. As our results indicate, the majority of children with disabilities are unlikely to be in the education system and are therefore falling outside current assessment processes. The National Disability Act recommends the establishment of Provincial Disability Coordination Committees, which are crucial, but we suggest taking this a step further, and similar to Gender Focal Points, establish disability focal points in each province who can support the mainstreaming of disability issues across other sectors such as health, education and community development.