# Ministry of Education, Guyana

Government of the Co-operative
Republic of Guyana

Teacher Policy Framework for Guyana

A professional, motivated teacher cadre that is equitably deployed and maintained across the country.

Teachers matter. They are the main input of the educational production function, with the greatest impact on student learning (Hanushek, 1971; Murnane, 1975; Hanushek & Rivkin, 2010; Staiger & Rockoff, 2010; Jackson et al., 2014; Rockoff, 2004; Rivkin et al., 2005; Aaronson et al., 2007; Chetty et al., 2011, 2014) and the greatest expenditure in education budgets.
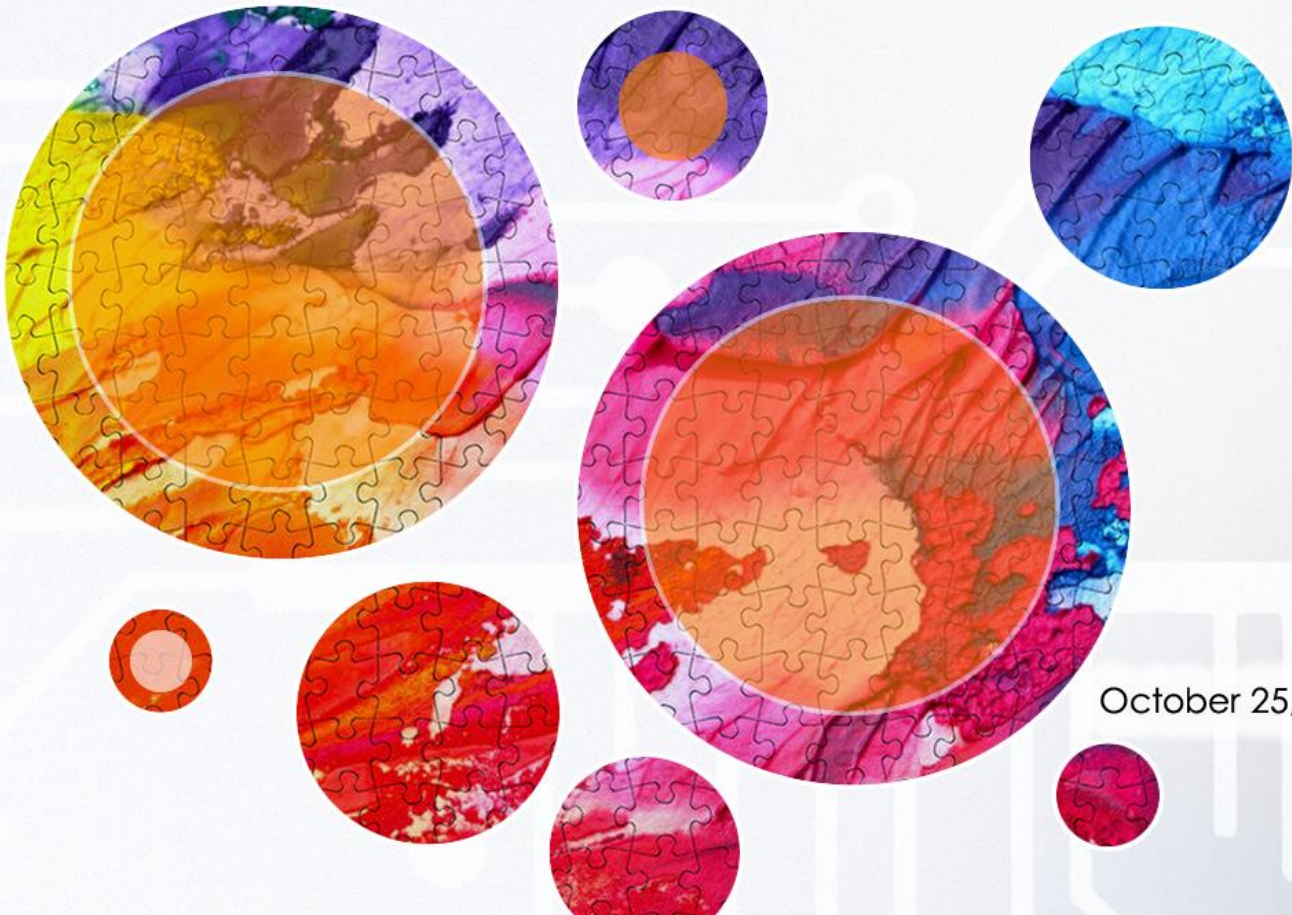
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Contents

1. Introduction

Teachers matter. They are the main input of the educational production function, with the greatest impact on student learning (Hanushek, 1971; Murnane, 1975; Hanushek & Rivkin, 2010; Staiger & Rockoff, 2010; Jackson et al., 2014; Rockoff, 2004; Rivkin et al., 2005; Aaronson et al., 2007; Chetty et al., 2011, 2014) and the greatest expenditure in education budgets. The Ministry of Education's Education Sector Plan (2021-2025) recognises the importance of teachers to the education system, as does the CARICOM's Human Resource Development Strategy. As such, improving teachers' quality and quantity is seen as a critical strategy for improving educational performance in Guyana, and several programmes are already underway in pursuit of these outcomes.

The Ministry also recognises that any programmes to improve the quality and quantity of teachers will be most effective if they form a part of a coherent set of teacher policies. Policy coherence is an important feature of good educational governance, and ultimately, having a comprehensive teacher strategy which addresses several interrelated dimensions affecting teachers is the most effective way of reaching priority educational objectives (UNESCO, 2019).

This document is not a comprehensive teacher strategy but a teacher policy framework, which aims to give direction for the ultimate strategy and to support coherence between the different pillars of teacher development and management within it. It draws its inspiration from the written inputs of the Ministry team, conversations with Ministry colleagues and World Bank and IDB colleagues at two teacher policy workshops, Ministry and CARICOM documents relating to teacher policy, evidence on successful teacher policy reforms, and the workings of high-performing education systems with established teacher development and management systems.

This framework will begin with an overarching vision for the teacher workforce in Guyana that coheres around three themes, and then propose approaches and policies in the areas of teacher recruitment, initial teacher training, induction and registration, professional development, certification, appraisal and accountability, teacher career structures, teacher pay, and teacher deployment and working conditions. In brief, this policy framework proposes the development of a teacher expertise framework linked to the Guyanese teacher standards; a progressive professional development offer and robust certification system based on this framework; new roles within the career structure that recognize and utilize teacher expertise; and a centralized choice and deployment system for matching teachers to schools. It is suggested that this linking of standards, professional development, certification and promotion will have implications for the attractiveness of the profession and therefore recruitment and will also open up novel ways of encouraging teachers to work in 'less desirable' locations.

This document is an initial suggestion for how the various pillars within a comprehensive teacher policy for Guyana might work together. It is a prompt for discussion, which includes many different possibilities for actions you might take. I hope you find it helpful.

2. Overarching goal and theoretical underpinnings

This teacher policy framework was written with the following goal in mind:

A professional, motivated teacher cadre that is equitably deployed and maintained across the country.

2.1. Professional

In line with the approaches taken in high-performing education systems, the recent strategies and programmes planned and undertaken by the Guyanese Ministry of Education are those which seek to professionalize teaching and teachers. Among these, the adoption of teacher standards, the development of an appraisal instrument which aligns with the standards, the training of large numbers of in-service teachers, and the plans to establish a Teaching Council, all support the transition from a system in which anyone can become a teacher, to one in which there are quality requirements for entry - and continued employment - in the nation's schools.

This teacher policy framework builds on these promising beginnings to suggest a series of policies that are the hallmark of professions in other sectors and countries.

2.2. Motivating

Since the turn of the century, many countries around the world have been experiencing what has been described as a crisis in teacher motivation. In some places this has manifested as a high teacher attrition rate (e.g. Gonzalez-Escobar et al., 2020), in others, teachers have remained in their jobs but are often absent, or are present, but not actively teaching (e.g. Devcota, 2005).

Based on limited data, Guyana appears to have avoided this crisis of teacher motivation, with an attrition rate in 2017 at under 10% (MoE Education Sector Plan, 2021-2025), and a recent review finding that teachers in Guyana spent 91 percent of classroom time actively teaching or providing a learning activity (Molina et al., 2018). This is a good place to start in the most recent efforts to develop the teaching workforce.

This leads to two considerations. Firstly, it is important that any new policies implemented do not inadvertently introduce those factors that have led to a crisis of motivation in other countries, such as excessive teacher workload, rigid structures, and poor relationships with school management (e.g. Gonzalez-Escobar et al., 2020). Secondly, it is of course not enough for teachers to be 'not demotivated', rather, the teacher development and management system should aim to motivate teachers, not only to actively teach and remain in the profession but to continue to put in the effort required to get better over the course of their careers. It should give them a framework within which they can self-actualize.

Self-determination theory (Deci & Ryan, 2000; Ryan & Deci, 2017) is based on decades of research into human motivation and provides a useful framework for thinking about the features of a teacher development and management system that support teacher motivation and well-being. It posits that goal-directed behaviours are driven by three psychological needs, the fulfilment of which in a particular context (in this case, schools) increases intrinsic motivation. These needs are:

- Autonomy: the need to feel ownership of one's behaviour
- Competence: the need to produce desired outcomes and to experience mastery
- Relatedness: the need to feel connected to others

Teachers' ability to fulfil these needs is considered in the following proposals (as is consideration of the balance between these needs, and the need to occasionally remove poor teachers from the service).

Finally, it is not enough to give teachers every best chance of being motivated in their existing jobs; we also need to motivate them to teach in less 'desirable' locations and to motivate more and better-qualified people to join the profession in the first place. Alongside optimizing for autonomy, competence and relatedness, these challenges call for and draw on more traditional economic incentives, designed in modern ways.

*A note on autonomy. In the long run, there is a need to plan for how Guyana can shift the culture in schools to one in which teachers have more agency around what they do in the classroom. But in the short term, the focus of this policy framework is not to expand teachers' autonomy in the classroom but rather to expand their autonomy and opportunities with regard to the direction in which they take their careers.

2.3. Equitable

Our considerations cannot end there. Optimizing for a professional and motivated teacher workforce in Guyana alone would not fully address the inequitable deployment of teachers nationwide. The hinterland regions have both higher student-teacher ratios than the rest of the country, and a smaller proportion of qualified teachers (data from Public Expenditure Review). Given the importance of both these factors for student performance, it is imperative that any teacher development and management system includes programmes, structures and incentives that address this inequality.

Another way in which such a system should be equitable concerns fairness for the teachers themselves, in the way they are deployed and promoted. Currently, there are several different bodies that make decisions around deployment and promotion, and no clear rules and procedures for how these decisions are made which is common across them. As part of the redevelopment of the deployment system, these rules and procedures could be standardized and made public, so that teachers can understand how such decisions are made and see that they are made fairly. If a certification system is introduced, the same must apply to the rules and procedures surrounding certification.

3. Pillars of a comprehensive teacher policy

3.1. Teacher Recruitment

Current situation

Across Guyana, on average, student-teacher ratios are relatively high compared with international peers, especially at the primary level (data from PER). There is a negative and statistically significant relationship between the number of students per teacher and student outcomes across all levels of education, and these ratios are worse in the hinterland regions. This suggests that more teachers need to be recruited than just enough to replace those who leave.

The importance of reducing student-teacher ratios is not necessarily about reducing class size – some of the highest-performing systems have low student-teacher ratios, and yet keep their classes large to allow for teachers to have more non-teaching time during the working day. The Education Sector Plan (p63) reports that one of the most significant weaknesses of schools currently is the limited use of instructional time, due to frequent absences of teachers from the classroom (due to staff shortages, leave-taking, attendance at the University of Guyana, etc.). In order to improve the quality of teaching, there need to be enough teachers in each school to allow time during the school day for professional development, professional collaboration, planning and marking.

To identify how many teachers are required each year, and in what phase and subject, an audit and planning exercise needs to be undertaken at key points in the year, which takes into account existing teacher numbers, retirement, attrition, and enrolment projection, all disaggregated by level and region. This analysis should include consideration of budget availability for training new teachers.

More academically accomplished students could be targeted in recruitment drives

In high-performing education systems, the teaching cadre draws from the top third of students graduating from high school at age 18/19, or from degrees in other subjects. Commensurate with this, data from Guyana shows that at the secondary level, teachers' own academic preparation appears to contribute to students' learning outcomes (data from the PER).

While we don't yet have data on the quality of recent applicants to teacher training in Guyana, Elacqua and colleagues (2018) find that the teaching profession in the LAC region as a whole has yet to successfully attract the most talented individuals into the profession. Often, pursuing a teaching career is merely seen as a means to attain a degree rather than a lifelong vocation. In the Latin America and Caribbean (LAC) region, 12.4% of individuals enrolled in higher education programs aim to pursue teaching careers. This percentage significantly surpasses the 8% seen in OECD countries. Predominantly, these students are women (73%) hailing from middle to low socioeconomic backgrounds. However, upon admission, these

students often exhibit relatively lower academic performance compared to their counterparts pursuing different career trajectories (Elacqua et al., 2022).

In light of this, one approach to improving the quality of teaching in Guyana would be to gradually shift the main intake of teacher trainees from those with CSEC qualifications to those with CAPE qualifications also, through gradually increasing the academic requirements for entry into teacher training, as the qualifications of those applying increase. The CAPE cohort of students could be one segment of the population to specifically target in recruitment efforts, alongside interventions that attract more highly qualified candidates in general.

The IDB has carried out two large-scale, cost-effective interventions in Chile with the aim of attracting higher-qualified candidates to teacher education programs, utilising behavioural economics techniques (Ajzenman et al., 2021). These interventions took place during the centralized higher education admission, involving over 200,000 students. Utilizing communication channels such as emails, text messages, and chatbots, these interventions successfully led to a considerable increase in applications and enrollments in teacher education programs.

In addition to these interventions, other effective strategies to attract qualified candidates to the teaching profession involve implementing demand-side policies. These include providing scholarships and loans specifically for high-achieving students who choose teaching careers – something that could be considered to attract CAPE-qualified students to teaching. This approach has not only proven successful in Chile but also in certain states in the United States (Pérez, 2020; Clotfelter et al., 2008).

Finally, one way of getting CAPE students to have an experience of teaching and consider it as a career would be to give year two CAPE students some flexibility in their schedules and encourage them to teach in a different secondary school for a couple of hours a week. Students would be paid to do so and would need some form of training and support to ensure they had a good experience in the role.

Students from remote regions could be targeted in recruitment drives

We have already heard that remote regions of Guyana have substantially fewer trained teachers. One approach to addressing this inequity will be attracting teachers from elsewhere in the country to work in these regions, but another which could be used in addition is to target recruitment initiatives at young people who are from those regions, and therefore, more likely to stay and teach there in the long term. Their needs and preferences would need to be explored through focus groups and taken into account in the design of a recruitment campaign, and possibly, alternative teacher training route.

Former teachers who have left the profession could be targeted in recruitment drives

Despite the fact that the teacher attrition rate in Guyana is low compared to many other countries, there will still be a population of hundreds of experienced teachers that could be tempted to rejoin the profession, with the right accommodations and incentives. The attrition rate is substantially higher for women than for men, and this may mirror the

experience of other countries where a high proportion of teachers who leave are women in their 30s, due to having families. Making some adjustments to make teaching in Guyana a flexible and family-friendly profession could attract experienced teachers back to the teaching workforce, prevent others from leaving, and even make the career more attractive to school leavers.

Proposed short-term actions:

→ Conduct research into the quality of the teacher training applicants CPCE has attracted in the last three years. (Approved)

→ Design and implement a programme for CAPE students where they work in a different school for 2 hours a week alongside their studies and receive an honorarium. Design some basic training, and ensure it is adequately supported. (Approved)

→ Divide potential target groups of potential teachers into segments (CAPE students, qualified students from rural areas, and former teachers), and conduct focus groups with each to discover what factors might motivate them to work as a teacher. (Approved)

Proposed medium-term actions:

→ Design teacher recruitment and incentive programmes (e.g. fast-track training or promotion opportunities, paid-for degrees in exchange for a return of service, childcare provision) based on the findings of the segmented focus groups referred to above. Evaluate and build on existing programs. (Approved)

→ Utilize behavioural economics techniques to design an intervention to attract higher-quality candidates to teaching, similar to the one IDB designed in Chile. (Approved)

→ Make it one function of a new Teacher Council to signpost all routes into teacher training from a central admissions page, to reduce the cognitive load on potential applicants. (Approved)

→ Make it another function of the new Teacher Council to conduct a bi-annual audit of the existing numbers of teachers and use this to inform planning for recruitment based on existing stocks, retirement, attrition, enrolment projection, and with due regard to budgetary considerations, all disaggregated by level and region. (Approved)

Proposed long-term actions:

→ Once there is a higher volume and quality of applicants to teacher training, consider raising the academic requirements for entry. (Approved)

3.2. Initial teacher education

Current situation

The Cyril Potter College of Education is the main provider of Initial Teacher Training in Guyana, with some teachers also trained at the University of Guyana. The most frequent types of teacher training are a Trained Teacher Certificate (50 percent of total teachers) and a bachelor's in education (15 percent). Some teaching programs (diplomas and post-graduate qualifications) are also offered by international universities via the Guyana Online Academy of Learning (GOAL). Both are in the process of being accredited.

The share of untrained teachers is at least 25 percent at all levels of the education system. The Minister set a target for 100% trained teachers by 2025, and in light of this, CPCE's intake has more than quadrupled. The goal is for one thousand teachers who are not yet trained to become trained. (CPCE principal and MOE to share latest data on these numbers).

The CPCE is, therefore, undertaking an ambitious programme to upgrade the qualifications of practising teachers across the country who do not yet have a teacher training qualification. They have been expanding their digital and distance education competence to deal with this. This will support the transition of the teaching cadre towards being a regulated profession, where every teacher in a Guyanese school is qualified.

Reviewing and standardising existing training routes

This upgrading is a challenging undertaking. Internationally, there is no guarantee that teacher training or upgrading programmes will translate to teaching or student learning changes. For example, Indonesia introduced a large-scale upskilling and certification of teachers, but a later review found no difference in pedagogy or student outcomes between those primary school teachers who were certified, and those who were uncertified (Chang et al., 2013). In Guyana by contrast, the two most popular teacher training programmes positively correlate with student learning outcomes, across all grades (Public Expenditure Review, 2021). This is something to be celebrated.

However, as with all teacher training programmes, there is scope for further improvement. The size of the correlation between teachers' holding these qualifications and student outcomes is small at the primary level and moderate at the secondary level (PER). The existing programme at CPCE was the result of a project that concluded ten or eleven years ago, and the global research on what makes for effective teaching has moved on since then. One of the recommendations is, therefore, to review the existing teacher training programmes to determine the extent to which they are meeting their intended objectives and to optimise them based on the latest research into pedagogy and effective professional development.

This fits in with the larger framework and ambition of professionalising the teaching workforce. In high-performing education systems and other professions, different training programmes are regulated to ensure that they meet a common standard so that all

professionals in the sector have a shared knowledge and skill base. It could be the role of the new Teaching Council to set out what these expectations of teacher training programmes should be, with the National Accreditation Council either performing the function of reviewing each of the programmes against these shared expectations or formally accrediting them once they have been reviewed by the Teaching Council.

Teacher training schools

From an equity perspective, it is brilliant that there are 20 CPCE centres placed throughout the country and that teachers from rural areas do not need to travel to different regions in order to do their training. Part of the value of defining shared expectations for all teacher training programmes will be supporting staff at every centre to ensure they offer high-quality training. Something else supporting the high quality of teacher training across the country would be teacher training schools attached to each of the centres.

Teacher training schools in Finland are attached to each university's teacher training department. They are regular schools with real school-age students, which also act as a site for trainee teachers to observe expert teachers and practice teaching themselves. The teacher educators within them are practising teachers who are also experts in teacher training and offer student teachers feedback during a series of practicums.

In England, teaching schools act as a resource hub for all schools in their area and offer professional development courses. In Guyana, if a school in each region (or near each training centre) was designated a teacher training school, it could additionally act as a hub of teaching expertise and could be where 'Master Teachers' were based once those programmes/positions were set up.

Proposed short-term actions:

→ Review the existing teacher training programmes at CPCE and UoG to determine the extent to which they meet their intended objectives. (Approved)

→ Identify and designate schools with 'teacher training school' status near each of the 20 CPCE centres (based on the existing ECE model). Base expert mentors and teacher educators in these schools, providing ideal demonstration environments and practical exposure for trainee teachers. (Approved)

Proposed medium-term actions:

→ Develop common, standardised expectations of all teacher training programmes (a role of the new Teaching Council) based on the latest research into pedagogy and effective professional development. (Approved)

→ Update existing programmes to align with these expectations. Formally accredit initial teacher training programmes that meet these expectations through the NAC. (Approved)

Proposed long-term actions:

→ Re-evaluate initial teacher training courses every ten years. (Approved)

3.3. Induction and teacher licensing

Current situation

The establishment of a Teaching Council of Guyana (TCoG) has been alluded to above and is already the intention of the Ministry of Education. CARICOM (2022) has released guidelines for the establishment of Teaching Councils, which this teacher policy framework is broadly in line with, and so rather than repeat much of what is already set out by CARICOM, this document will demonstrate how the Teaching Council might function within the wider teacher development and management system.

One important function of a Teaching Council is to set up and manage a register of teachers who are qualified to teach in Guyana's schools (where being on the register is equivalent to having a teaching license). How this works in many countries is that teachers are only provisionally registered (granted a provisional license from the Teaching Council) on graduation from their initial teacher training qualification, and then only become fully registered (granted their full teaching license) once they have successfully passed an induction period. Both these steps deserve further examination, as there are several opportunities for raising the quality of the profession at both the provisional and full registration stages.
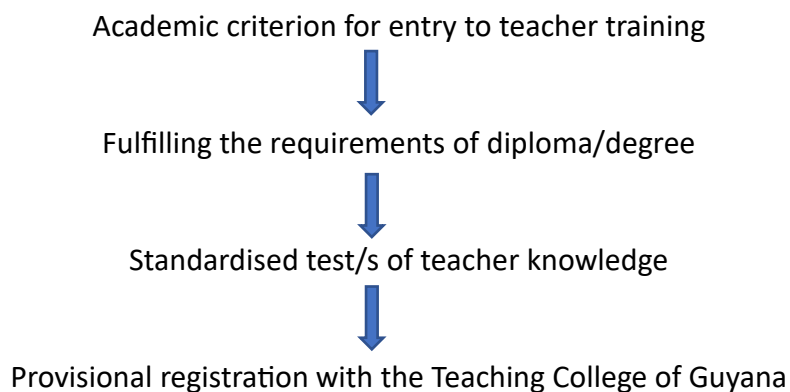
Teacher tests and provisional registration

Part of what makes for a profession, and what raises both the quality and ultimately the status of a profession, is barriers to entry. Not 'just anyone' can become a doctor or a lawyer. There are exams to take, interviews to pass, and standards to maintain. Conversely, it is the perception that anyone can enter a role which lowers its status. The countries with the most prestigious teaching workforces (and the best educational outcomes) are often those which require teachers or teacher applicants to take tests – either on entry to teacher training or on entry to a teacher register or hiring pool.

More locally, Peru, Columbia, Ecuador, Chile, Mexico, NY state and Washington DC have all introduced national teacher hiring exams, which teachers need to pass to get a job in the public school systems. Research on the effectiveness of this has found that test-hired teachers in Colombia, Peru, Mexico and Washington DC all produced higher student learning than non-test-hired teachers. Research by Estrada (2019) in Mexico is particularly interesting, as the comparison here was not with teachers who were not assessed at all but with teachers who were assessed by a non-test-based discretionary process; they still found that test-hired teachers produced better outcomes. This is consistent with recent evidence from Peru, in which Bertoni and colleagues (2023) examined the relationship between different types of teacher evaluation and teacher value-added (TVA) results and found that

test-based approaches were more predictive of TVA than classroom observations or interviews.

The content of such an exam is obviously paramount, and if Guyana were to pursue this approach, the content should be based on the standardised expectations for initial teacher training, which themselves should be designed based on the best available evidence on the knowledge underpinning effective teaching (and all overseen by the Teaching Council). In Guyana, a teacher hiring exam could be implemented as a condition for getting a provisional teacher license. This hiring exam would be based on the standardised expectations for teacher knowledge set out by the Teaching Council and taught in initial teacher training. The process would look something like this.

Academic criterion for entry to teacher training

⬇

Fulfilling the requirements of diploma/degree

⬇

Standardised test/s of teacher knowledge

⬇

Provisional registration with the Teaching College of Guyana

Teacher induction and full registration

Although predictive of teacher performance, teacher tests can only assess teacher knowledge and a limited subset of skills. It is therefore important to evaluate a wider range of teacher competencies before granting teachers full registration to the Teaching Council, with the privileges that entail. Most of these can only be learned and demonstrated on the job, so a period of induction is important.

The induction period performs a dual function of giving the novice teachers the time, support and direction to develop their skills and providing an opportunity for the system to gatekeep permanent entry to the teaching cadre and manage out any individuals who are not suitable for the profession. To the first point, it is important that novice teachers do not teach a full timetable but have time in the school day to reflect, plan and learn from colleagues. Not providing this extra time risks teachers dropping out or becoming demotivated quickly.

Likewise, teachers need guidance from experienced colleagues, and international best practice in this respect is to select, train and make time for teacher mentors to work with novice teachers in schools. These mentors will usually be teachers in the same schools as the novice teachers (or a nearby school if the school is small), who have designated time to observe and provide supportive feedback to novice teachers and help them organise their portfolio (or other forms of evidence required for completion induction). These mentors
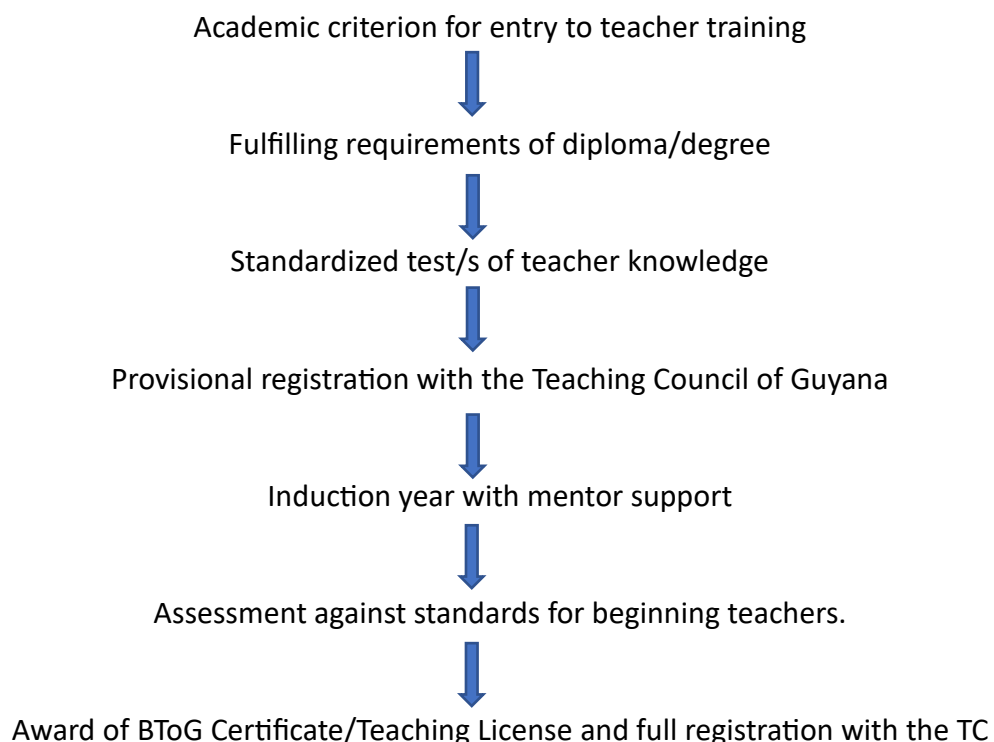
should ideally not be solely responsible for summative evaluation of the teachers, as this affects the working relationship.

In the longer term in Guyana, if the Ministry chooses to pursue a teacher certification system and roles aligned with the different stages in the teacher standards, both the mentorship (within the school) and the evaluation (from another school) can form a part of the responsibilities of teachers with higher levels of certification.

Guyana already has an induction process for teachers who have just finished their teaching qualification, which culminates with a certificate of completion of induction. This process is currently under review, as it needs to respond to the needs of the large numbers of in-service teachers who are doing their teaching qualifications for the first time but are already experienced teachers. This draft teacher policy framework will need to be adapted to take into account this new induction system. Whatever the new induction process is, teachers should be provided explicit guidance about what knowledge, skills, behaviours and experiences they need to demonstrate and details of what evidence counts as demonstrating them.

If this new induction system is based on the Guyanese teacher standards at the 'Beginning Teacher' stage, and novice teachers are assessed against these criteria, then successful completion of induction can become the criteria for full registration with the Teaching Council, and the award of a 'Beginning Teacher of Guyana' (BToG) certificate. This could also simply be called a 'teaching license' if preferred.

A proposal for the requirements made of teachers at different stages of their early careers:

Academic criterion for entry to teacher training

⬇

Fulfilling requirements of diploma/degree

⬇

Standardized test/s of teacher knowledge

⬇

Provisional registration with the Teaching Council of Guyana

⬇

Induction year with mentor support

⬇

Assessment against standards for beginning teachers.

⬇

Award of BToG Certificate/Teaching License and full registration with the TC

Proposed medium-term actions:

→ Establish a new Teaching Council of Guyana. (Approved)

→ Design and implement a teacher hiring test that teachers must pass to be provisionally registered with the Teaching Council, based on the Teaching Council's expectations for initial teacher training. Conduct consultations with key stakeholders to inform this policy. (Approved)

→ Make teacher registration with the new Teaching Council a requirement for teaching in public schools in Guyana. (Approved)

→ Decide on what knowledge, skills, behaviours and experience exemplify each of the teacher standards for 'beginning teachers', AND what kinds of evidence of meeting these standards teachers must demonstrate to get their 'Beginning Teacher of Guyana' (BToG) certificate. (It may not be necessary if this work has already been completed as part of the new induction process)

→ Recruit and train a cadre of teacher mentors who understand (and are themselves skilled in) the requirements for induction/BToG certification to mentor teachers during their induction period. (In the longer term, this role would require a higher level of certification to be eligible). (It may not be necessary if this work has already been completed as part of the new induction process or new mentoring scheme – but it is imperative that these policies/programmes are aligned).

→ Make the certificate of completion of induction the same thing as the BToG certificate and make this the sole requirement for full teacher registration with the Teaching Council (assuming teachers have already passed the hiring test). Review the requirements for induction to ensure they fully align with the Beginning Teacher standards and the knowledge, skills, behaviours and experience that underpin them. (Approved)

3.4. Professional development

Current situation

National Centre for Educational Resource Development (NCERD) has overall responsibility for continuous professional development in Guyana, although there are a few different providers that deliver it. Schools are encouraged to develop professional development for their teachers; some informal learning takes place in cluster meetings across schools, and assistant chief education officers can organise professional learning for teachers at their level within districts.

Much of the extensive work of the NCERD is designed as responsive, professional development (addressed below) to meet emerging needs of the system. The proposals in

this section of the policy framework are therefore focused on further supporting informal professional development in schools and clusters and establishing a suite of standards-based professional development courses to support teachers across the system along a development journey, guided by the different stages set out in the standards.

Informal professional development

Informal professional development refers here to the working environment and everyday working practices that lead to teacher development without the need for external input (once such practices are in place). High-performing education systems, especially those in East Asia, structure their teachers' working lives in such a way as to encourage continual learning. Research from the US has highlighted how a school's working environment makes a demonstrable difference to how quickly teachers improve. For example, Kraft and Papay (2016) find that, on average, teachers working in North Carolina schools at the 75th percentile of 'supportive professional environment' ratings improved 38% more than teachers in schools at the 25th percentile after 10 years.

What makes for a supportive professional environment, and how to develop one, is a subject too large to be properly addressed in a paragraph, but it encompasses teacher timetable changes, collaborative planning, teacher professional learning communities, and often new teacher roles (e.g. a professional learning lead). Guyana has some form here, with the existence of learning communities at the cluster level; this is a strength which could be built on and expanded. Although a benefit of such a working environment in and across schools is that it doesn't need ongoing external input, it does initial external input in the form of professional learning for whoever is leading the learning communities in order to ensure that they effectively generate teacher learning, and do not become predominantly focused on administrative matters.

It would be a worthy venture of the NCERD to develop some programmes or policies to support these in-school and across-school practices and to support the establishment of learning communities in areas which do not yet have them. It is also worth noting here that in setting up a new teacher development and management system, great care must be taken to avoid accidentally creating unsupportive working environments in which teachers are in competition with one another or fearful of the judgement of their headteachers.

Responsive, professional development

Responsive professional development is an important part of a teacher development and management system, and encompasses much of the current work of the NCERD. It is designed in response to an identified need in the system, for example, a need for teachers to improve their formative assessment of students, or a need for them to understand a new curriculum or IT system. NCERD already offers formal responsive courses both online and in-person, as well as more targeted interventions in particular districts, and even individual schools. Since the pandemic, NCERD has expanded its online offering, and this now gives teachers a chance to choose courses in response to their own individual needs too, making the PD offer responsive to needs at both a microcosmic and macrocosmic level.

The addition of standards-based professional development should not be seen as a replacement of this type of PD; both responsive and standards-based PD are essential facets of an effective teacher development and management system.

Standards-based professional development

Standards-based professional development (Invargson, 1998; Getenet et al., 2013) is based on a nationally agreed framework or detailed standards outlining the knowledge and skills expected of all teachers, along with more targeted standards or expectations broken down by subject specialism and phase. When done well, it comprehensively and systematically builds on the knowledge and skills teachers develop in their initial teacher training, based on the expectation that teachers should continue to develop throughout their careers. Courses are linked together and build on each other, so that teachers' expertise increases gradually, and the professional development they undertake is suited to their level of competence.

This approach is taken in England with the Early Career Framework, which sets out the knowledge, skills and experiences teachers should develop in the first three years on the job. Professional development based on this framework is offered to all early-career teachers by a variety of professional development providers. Much of the content is delivered online, with designated mentors in schools to support the early-career teachers in applying their skills in the classroom.

This is also the approach taken in Singapore, where teachers are required to undertake full-time courses lasting several weeks at various stages in their careers in order to be eligible for a promotion. Some of these courses can be taken as self-directed learning using an online platform called VITAL (virtual institute of teaching and learning). Guyana's new Moodle platform could be used to host these new courses, utilising the instructional design experience and training of NCERD colleagues.

A non-educational problem, but with great implications for equal access to professional development, is the lack of consistent internet access across the country. This is an area of infrastructure that should be prioritised or some creative solutions found. In the absence of universal access, the 20 CPCE hubs could become professional learning hubs which could host regular 'streaming' of these courses (or simply access to these courses on individual machines) and provide short-term accommodation for teachers who needed to stay over due to distance from their homes.

Teacher standards

This philosophy of expecting continual improvement and the approach of interpreting standards as a series of progressive stages fit in well with CARICOM's vision for the teaching profession in the region. One of the distinctive features of CARICOM's Standards for the Teaching Profession is that "the expectations for good teaching are aligned and mapped across the practices of classroom teachers, educational leaders and teacher educators, this as quality teaching is deliberately nurtured and developed through the life of the career" (p6).

The CARICOM standards document sets out standards for teachers, school leaders and teacher educators, and each standard briefly describes the competencies or behaviours one would expect of a teacher at different points in their career. For teachers, these are broken down into four stages: Beginning Teacher, Proficient Teacher, Accomplished Teacher, and Lead Teacher. Guyana's standards are closely related to these CARICOM standards, with some modified to better suit the Guyanese context.

The standards and the competency descriptions in the CARICOM document form a good starting point for developing a teacher expertise framework on which to base professional development but are not sufficient in and of themselves. The competency descriptions are brief and do not encapsulate what a teacher would need to know and do in order to meet such a description. For example, the statement: "Applies with good proficiency the knowledge of 21st-century practices in planning, teaching and assessing" does not include guidance on which practices teachers should be familiar with and what 'applying with good proficiency' would look like. This is a risk, as '21st-century practices' could encompass a huge range of approaches, some of which are research-based and some of which could, in fact, be detrimental to student learning. Additionally, some of the competency descriptions in the CARICOM standards remain unchanged from stage to stage, and others reference attaining 'professional qualifications', which may or may not contribute to teacher effectiveness.

To have effective and systematic professional development, in which a course targeted to those aspiring to be 'Lead Teachers' built on the knowledge and skills already developed on a 'Proficient Teacher' course, this detail needs to be planned out. This could either be done in a teacher expertise framework document that linked directly to the Guyanese standards, or it could form a part of an expanded Guyanese standards document. The addition of more detail in either format is also crucial for a robust and reliable certification system (see next section).

Proposed short-term actions:

→ NCERD could undertake some research on the effectiveness of existing learning communities and develop some PD for learning leads at the cluster level and school level to support their functioning, expansion and alignment across the country. This should align with the leadership programme. (Approved)

→ Investigate the situation with regards to internet access in remote regions and plan to address any dead spots. If this is too great a challenge, ensure all teachers have access to the learning resource centres to access streamed courses on demand and short-term accommodation if necessary. (Approved)

Proposed medium-term actions:

→ The Teaching Council could undertake or commission the creation of a research-based Expanded Standards Document, which would update the existing teacher standards and provide more detail about the expectations underpinning the standards at different phases through a Teacher Expertise Framework. This should begin with the Beginning Teacher

Standards (already suggested above), ensuring it is closely aligned with the expectations set out for initial teacher training courses. (Approved)

→ As different parts of the Expanded Standards Document emerge, NCERD could design courses to include on their Moodle platform, which supports teachers to reach the expectations within the included framework. E.g. Assessment (Proficient Teacher level) or Mathematics Pedagogy (Accomplished Teacher level). [Proposal for MoE consideration]

3.5. Certification

Creating a certification system in which teachers are formally assessed against increasingly challenging expectations has enormous potential for the status of the profession, for linked career development opportunities for teachers, for managing the deployment of suitably skilled teachers across the country, and for teacher accountability. It provides recognition of teacher competence, which will motivate teachers to improve and be motivating for those who achieve it. Its design, implementation and ongoing costs would need to be planned out and carefully budgeted for, but it would be worth the investment in the mid-to-long term.

On successfully meeting the expectations at a particular stage (let's take the 'proficient teacher' stage from the Standards as an example), teachers could be awarded a certificate of 'Proficient Teacher of Guyana' at a ceremony, add the letters 'PToG' after their name in correspondence, and have their certification recorded centrally on the Teaching Council's teacher register, to inform the roles for which they were qualified.

International lessons

This certification approach is taken in a number of countries, notably the USA, where the National Board for Professional Teaching Standards assesses teachers who apply for Board Certification against detailed standards, and England, where the Chartered College of Teaching assesses teachers against their standards for 'Chartered Teacher' Status. In both countries, teacher pay is deregulated, so the certificates are used to indicate quality with which to negotiate individual contracts. In Singapore, in order to be promoted to 'Senior Teacher', 'Lead Teacher' or 'Master Teacher', teachers must go through an accreditation process to show that they meet certain standards thresholds in terms of their knowledge and skills.

However, such certification is only of value if it is considered to be a valid and reliable measure of teaching quality. Scotland's Chartered Teacher Scheme was discontinued despite strong buy-in from teacher unions, governments, and employing authorities because the credibility of the assessment process for certification was not clearly established, and therefore, "the widely held view is that the existing cohort of chartered teachers does not singularly represent the best teachers in Scotland" (MacCormac review, 2011). The Australian Institute for Teaching and School Leadership's 'Highly Accomplished' and 'Lead Teacher' standards for teacher certification have had a number of benefits for the teachers that have achieved them and the schools in which they work, but the comparability of

standards across the country has been questioned. This is because it is individual states that assess and award certification to teachers, each interpreting the standards differently, rather than the AITSL itself (Invargson, 2018).

These experiences in Scotland and Australia speak to the importance of:
- taking time to clearly define the knowledge, skills, behaviours and experiences that are expected at different stages for different subject specialisms and phases as part of a teacher expertise framework;
- doing so based on research evidence about what makes for effective teaching to ensure the framework and resulting certification process is valid;
- clearly defining the evidence teachers need to present or demonstrate to be certified at each stage for the sake of transparency;
- training assessors in the accreditation process so that it is reliable.

The relationship with CARICOM

Basing such a certification process on the Guyanese Standards (which are similar to the CARICOM standards) is consistent with the above, so long as they are either expanded or supported by a more detailed teacher expertise framework that defines expectations at each stage. Australia's experience in particular, raises a question about the comparability of certification across the CARICOM region. If any other states are less rigorous in their application of these standards, then any shared certification or status (e.g. 'proficient teacher') will lose its value.

One way of avoiding this problem would be to make Guyana's certification system uniquely Guyanese while at the same time being based on similar standards by adding the teacher expertise framework and including 'of Guyana' in the name of each certificate (e.g. 'Proficient Teacher of Guyana' or 'PToG', rather than just 'Proficient Teacher'). Another would be to work with CARICOM to develop a more detailed framework and robust accreditation system to support the standards at different stages and to jointly train assessors to ensure comparability across the region.

Organisational responsibilities

In most countries that have introduced advanced teacher certification (beyond the initial teaching qualification), this function has not been fulfilled by the Teaching Council but an additional body (a 'College' an 'Institute' or a 'Board'). The Teaching Councils (and General Medical Council in the case of medicine) oversee the standards of initial teacher training and entry to the profession but not recognition of development beyond that.

However, this limits their ability to build a coherent pathway for teachers, which begins with initial teacher education. It would also prevent the Teaching Council from being a 'one-stop shop' for teachers. In Guyana, the Teaching Council could fulfil both functions as part of a continuous pathway of certification. This would involve defining clear expectations for the contents of initial teacher education and, subsequently, a teacher expertise framework aligned with the Beginning Teacher Standards and every stage beyond that. The Teaching Council would not be responsible for the design or delivery of Initial Teacher Education or

professional development that aligned with the teacher expertise framework but would be responsible for designing and overseeing the assessment of these standards and awarding subsequent certification.

The proposed responsibilities of the Teacher Council are in bold below. In italics are the proposed responsibilities of either the CPCE and UoG (delivery and assessment of ITT), or NCERD (design and delivery of professional development programmes aligned with the teacher expertise framework). Remaining are the oversight of induction support (training mentors, etc.) and the assessment of teachers against the expectations for beginning teachers, which should be equivalent to the certificate of completion of induction. Who is responsible for these will depend on the new induction policy.

ITT phase	Induction	5-10yrs later	10yrs+
Expectations for ITT → **Expectations for BTOG**		→ **Expectations for PTOG**	→ **and so on.**
Delivery of ITT	→ Induction support	→ *PD for PTOG*	→ *and so on.*
Assessment of ITT	→ Assessment of BTOG **Hiring test**	→ **Assessment of PTOG.**	→ **and so on.**

Proposed short-term actions:

→ Hold consultation meetings with teacher unions, teachers, and other key stakeholders to elicit their views on the proposal to introduce a standards-based teacher certification system, and what factors should be taken into consideration in its design. (Approved)

Proposed medium-term actions:

→ In addition to designing a Teacher Expertise Framework as part of the Expanded Standards Document, setting out clear expectations for teachers at different phases, the Teaching Council should design or commission an accompanying Teacher Assessment Framework that clearly sets out how teachers should evidence their abilities against these standards and expectations, as part of their application for certification (or certificate renewal – see 3.6). This should start with BToG and PToG in the first instance. It should be broad enough to take contextual issues into account. (Approved)

Proposed long-term actions:

→ Once the Teacher Expertise Framework and linked Teacher Assessment Framework are complete for BToG and PToG, the Teaching Council should train assessors and run a pilot certification programme to evaluate its practicability, reliability, validity and financial sustainability. (Approved)

→ Based on the learnings from the pilot programme, a decision should be made about whether, when and how to roll out the certification programme fairly, across the country. (Approved)

3.6. Appraisal and accountability

Current situation

There has been widespread criticism of the teacher appraisal system in Guyana over the years. It has been criticized for its lack of objectivity, its lack of direct correlation with practical performance standards, and its lack of shared understanding and interpretation of articulated competencies. Its value has also been questioned, as appraisal outcomes have not influenced teachers' promotion prospects. As a result, it is not used consistently across the country and is an important area to reconsider in any teacher policy reform.

Teacher appraisal can have two main purposes: formative and summative. The same teacher observation instruments (and other tools) can be used for both; what differs is the response to the appraisal. Guyana's new appraisal tool is based on the teacher standards and is intended to be used as a developmental tool, which is formative in nature. Formative appraisal is intended to support the teacher to improve through receiving personalised feedback on their teaching. Summative appraisal, on the other hand, is intended to make a judgement about a teacher's performance that will often have some consequence related to pay, employment or certification. As the new appraisal tool is not intended to be a summative instrument, there is an additional need for consideration of how teachers can be recognised for good performance and held accountable for poor performance, where necessary.

Summative appraisal

Any judgement about whether a teacher has met the expectations for a teacher certificate, such as 'Proficient Teacher of Guyana', will involve some form of teacher appraisal. As explained above, it's very important for the credibility of the certification that this appraisal process is transparent and reliable.

There are a variety of instruments available, such as teacher portfolios, lesson observations, videos of lessons, tests of teacher knowledge, and teacher interviews. None of them are perfect; each has its advantages and disadvantages. The Measures of Effective Teaching project run by the Gates Foundation (Kane et al., 2013) supported using multiple measures to evaluate teacher performance, as it found that relying too heavily on a single measure made it more likely that other valued behaviours were overlooked. Which method is appropriate to judge a teacher's abilities related to any particular standard should be based on the ability being assessed (be that knowledge, skill, performance, or attitude). For more details on different evaluation instruments and their strengths and weaknesses, see Crehan (2016).

What is clear from a variety of evidence and international case studies is that summative decisions about a teacher's performance should not be made by their school-based colleagues (including their headteacher). Research from the United States, Kenya and Columbia all found that headteachers tend to give consistently high ratings to their staff and exercise little discrimination (French et al., 1988; Kremer et al., 2001; Bruns & Luque, 2014). Jacob and Lefgren (2008) also found that principals are not very good at distinguishing between more and less effective teachers when asked. What is more, giving a headteacher responsibility for making a summative appraisal decision that affects a teacher's career can affect the relationship between the two individuals involved and make teachers less likely to ask for help (VSO, 2002), as they are incentivized to hide any weaknesses in their practice. The same is true for others giving summative appraisal responsibility to colleagues within a teacher's school and can lead to bad feelings among staff (e.g. Tekleselassie, 2005).

Who, then, should make these summative appraisal decisions? Once a certification system and related promotion system (see below) are up and running, more senior teachers can be tasked with appraising teachers from other schools as part of their additional responsibilities. One of the benefits of the National Board Certification process in the USA is that board-certified teachers were found to be better at judging other teachers' performance. In the short-term, though, Guyana would need to train up a cohort of expert teacher assessors in how to use the teacher expertise framework and associated assessment criteria, who would then either visit schools, or evaluate portfolios and videoed lessons from a central location. This would be the case for PToG certification and above – whether or not this would also be necessary for the BToG certification would depend on the numbers involved and associated costs and on the plan for the new induction process.

Accountability and formative assessment

A somewhat controversial proposal, perhaps, is that certification should be the only teacher accountability mechanism that relates to teaching quality. Of course, teachers should be held accountable for their conduct against a professional code of ethics and removed from the teacher register if found to be wanting in this area. But for teacher quality, a requirement to be evaluated against the teacher standards and expectations every five years should provide enough of an incentive to improve, with enough time between evaluations to do the improving and engage with any necessary professional development. This is consistent with research which shows that high-performing education systems build their human resources by focusing on attracting, training and supporting good teachers rather than on firing weak teachers (Asia Society, 2014; Crehan, 2016b).

During these interludes between certification evaluations, formative teacher appraisal by colleagues within a teacher's school should continue to take place, but its emphasis should be on supporting the teacher to improve and preparing them for their upcoming evaluation against the standards and related expectations. This is consistent with the plan for the new teacher appraisal instrument in Guyana to be a developmental tool, allowing supervisors to identify ways in which the teachers can improve in relation to the standards.

When it came to summative appraisal, teachers could choose what level of certification they would like to apply for (dependent on their years of experience and existing certification). They could either apply for the next level up and be assessed against more challenging expectations, or they could choose to be evaluated for recertification against the level that they are already at. New Zealand implemented such a system where teachers are required to recertify to keep their teacher registration (Haig, 2015), and Ecuador's teacher career system similarly requires that teachers either achieve further promotion to the next career stage or re-certify at the same level every four years. If they do not successfully re-certify, they are downgraded to the level below (Bruns & Luque, 2014).

Similarly, in Guyana, where a teacher did not meet the standards and related expectations for the next level up, their existing evidence could be considered against the standards and expectations for their existing level instead, and if satisfactory, their certificate for this could be renewed. Where a teacher did not meet the standards and expectations to renew their BTOG certificate, they could be given an additional year to improve and try again, after which they would lose their teacher registration and, subsequently, their job.

With this structure, teachers who are motivated to improve will see the certification process as an opportunity to improve their skills and status and will have the autonomy and available professional development to apply for higher-level certification. They are unlikely to perceive such a system as controlling. However, the system also includes an 'exit route' for those teachers who are not willing or able to improve and, therefore, fall below the required standards of the profession.

This structure leaves plenty of scope for MoE control of teacher quality. It could be that teachers must have at least a BToG certification to remain in teaching, with no further certification requirements for them. Or it could be the requirement that teachers apply for PToG certification after 5 years in the profession, making that the expected standard for more experienced teachers. You could have a certain number of years of experience required to apply for the higher levels of certification, or you could leave the timing of application up to teachers, allowing the best and the brightest to move up the certification ladder more quickly.

As part the implementation of this system, should the MoE choose to pursue it, the expectations for existing teachers already in the system will need to be considered. One option would be to assess all existing teachers against the Beginning Teacher Standards and related expectations. Another would be to drop the requirement for BToG for existing teachers, and instead invite those that are interested to apply for the Proficient Teacher Certification. Gradually over time, this could then become an expectation for all as a way of further upgrading the skills of the existing workforce. All these decisions should be made in conversation with the Teaching Unions.

We have considered two thirds of what makes for an effective professional certification system for teachers – the professional development framework and the certification mechanism. We will now turn to the final requirement – a teacher career structure – before considering how such a system can be used to support intelligent deployment of teachers.

Proposed short-term actions:

→ Establish the new appraisal tool as a developmental tool only, to be used in schools to support teachers to identify their learning needs and receive feedback. (Initially approved, but I suggest we discuss this again following the headteacher's comment about not being able to do anything about poor/unmotivated teachers.)

Proposed long-term actions:

→ Once the PToG certification system is in place, consider setting an expectation that all teachers achieve the PToG certification a certain number of years after receiving their full BToG certificate, with a minimum of three years required before application (in addition to the induction year). (Approved)

→ For existing teachers who are qualified but do not have a BToG certificate, waive the requirement to achieve a BToG certificate but make it an option and then later a requirement that they undertake training for PToG certification and pass the certification within a longer time frame. (Approved)

→ Once the certification system is in place, set an expectation that teachers certify at the next level or recertify against their current level every five years (if financially and practically feasible). (Approved)

→ Set an expectation that if teachers fail to certify at the next level, they are assessed against their current level instead. If they fail to certify or recertify against the BToG expectations, they have one further year to meet these expectations (with external support to improve) and then lose their teaching license. (Approved)

This section, in particular, will be of interest to Teacher Unions, and they should be consulted – how do we want to phrase this in the document?

3.7. Teacher career structures and pay

Once a certification system is in place that identifies varying levels of teacher expertise, alongside a professional development offer that supports teachers to reach these clearly defined standards, the possibilities for utilizing and recognizing this expertise are endless. This section sets out some initial suggestions and some underlying principles to consider.

The current situation

The recent Public Expenditure Review (PER) found that Guyana is underspending on primary and secondary education and on teachers. It also found that Guyana dedicates a lower share of education expenditures than international peers to staff compensation. Combine this with the fact that high-performing systems tend to benchmark teacher pay against other graduate professions and the evidence that it is the salaries of experienced teachers relative

to other professions that distinguish countries with higher student achievement (Akiba, 2012), and you have a strong argument for raising teacher pay across the board in Guyana.

What might help with this cause politically would be the introduction of a teacher register with entry requirements and the use of a trusted measure of teaching quality (i.e. certification) to link pay to performance. By making certification at different levels a requirement for different posts, the Ministry of Finance can be reassured that while raising teacher salaries, it is getting good value for money, with the highest-paid teachers also being the most skilled.

Linking certification to existing roles

This linking of pay to performance via a robust certification system could be implemented with the existing career structure and roles. For example, alongside the existing criteria to get a position as a 'Senior Assistant Master', the requirement of 'must have a PToG certificate' could be added. The information about what certification levels different teachers have would be recorded centrally on the teacher register managed by the Teaching Council, so teachers' eligibility would be easy to check.

In this model, the certification itself would not come with an additional pay rise – the incentive to certify would be that it made one eligible for more highly paid roles. Another model would be to grant teachers a small salary uplift when they certify, as well as making certification a requirement for promoted posts. Any decisions around the relationship between certification and pay should involve the teacher unions and should be budgeted for.

Creating new roles to open up a teaching pathway

One of the oft-rehearsed problems with career structures that have just a single path for promotion that leads to school leadership positions is that it doesn't provide promotional opportunities for those teachers who wish to remain in the classroom. Good teachers are, therefore, often promoted out of the classroom to the detriment of their pupils, and their attention is focused on managerial responsibilities rather than teaching and learning.

To solve this problem and create more opportunities for teachers to develop and utilise their teaching expertise, many countries have added new roles into their teacher career structures, such as 'Master Teacher' or 'Chartered Teacher'. This is clearly the direction that the CARICOM wish to move in, based on the descriptions in the standards document that apply to 'Proficient Teacher', 'Accomplished Teacher' and 'Lead Teacher'.

If Guyana were to add new promoted posts called 'Proficient Teacher', 'Accomplished Teacher' and 'Lead Teacher', which teachers qualified for by achieving the requisite certification, this could lead to several problems. Firstly, there would be potential confusion amongst teachers about the distinction between the certification 'Proficient Teacher of Guyana' and the job 'Proficient Teacher' (where one didn't guarantee the other). Secondly, it would limit the types of promoted posts the Ministry were able to add to the career structure to just three roles, limiting flexibility.

It would, therefore, be better to keep the names in the CARICOM standards as solely referring to different levels of certification and to add promoted posts of increasing seniority with different names, for example, Mentor Teacher, Senior Teacher, and Master Teacher. Each of these could then come with additional and clearly defined responsibilities around supporting the development of teaching in their schools and districts, along with extra time to do so (an example is set out below). Once the Ministry had determined what the promoted posts would be called and what responsibilities they would entail, they could be pegged on the existing pay scale to existing posts. For example, it might be decided that a Master Teacher is equivalent in responsibility and importance to a Deputy Head A and, therefore, should be paid the same salary (budget allowing). All these decisions should be made in conversation with the Teacher Unions.

Although this teacher policy framework has addressed just teacher certification and promotions, the same processes could be set up for the leadership pathway based on the CARICOM standards for school leaders. In this instance, it would need to be a leadership body defining leadership expectations and assessing against them for certification purposes rather than the Teaching Council.

Example of one possible career ladder (in addition to existing leadership ladder):

- Mentor teacher (requiring PToG certificate) – goal for everyone between 5-10 years after BToG, with mentoring, demonstration and appraisal responsibilities.
- Senior teacher (requiring AToG certificate) – goal for 30-40% of teachers, responsible for leading whole school PD, networking with other schools, and appraising PToG applications.
- Master teacher (requiring LToG certificate) – goal for just top 10% of teachers, big responsibility, teaching teachers across schools, leading teaching improvement programmes within a district, and appraising LToG applications.

Proposed long-term actions:

→ Once established, make certification at different levels a requirement for existing job roles. (Approved)

→ Introduce a new career pathway, with new roles which are based on being an expert teacher, and leading on the development of teaching. These roles should be dependent on certification at different levels but have different names to avoid confusion (e.g. Senior Teacher). (Approved)

→ The new roles should include new responsibilities, come with additional non-teaching time to conduct those responsibilities and be linked to a significant increase in pay. (Approved)

→ Consider including a small pay uplift for gaining a new level of certification. [Proposal for MoE and MoF consideration] (We haven't yet discussed this)

3.8. Teacher deployment systems

Current situation

At present, in Guyana, teacher deployment is managed through four different routes:
- The ACEO's themselves, who match graduates from CPCE to schools
- The TSC, who match applicants from the pool that applies to them to schools
- Regional Education Officers who match teachers to schools in hinterland regions
- The Boards of individual schools who advertise for teachers to apply directly

This is likely to lead to inefficiencies, with teachers not being aware of all the potential jobs available and central authorities not being aware of all the teachers who are looking to move jobs. There is also a risk that different procedures are used for selecting candidates, making the overall system less transparent and less fair. A centralised deployment system (such as the Centralized Choice and Assignment Platform described below) would overcome these issues and open up new possibilities for promoting particular jobs and their benefits to suitably qualified teachers.

If, on the other hand, this were not politically acceptable at this time, it would still be of great benefit to review and align the procedures for placement, transfer and retention across the different routes to ensure they were relevant and appropriate. These procedures would need to be updated anyway, with the addition of new certification requirements for particular roles.

Centralised choice and assignment platforms

To streamline the deployment and transfer of teachers, including those in permanent and temporary positions, the IDB has actively developed online, centralised assignment platforms. These digital allocation systems harness the benefits of artificial intelligence (AI) and matching, allowing governments to effectively organise and meet teachers' needs while ensuring transparency throughout the process. Traditional decentralised processes have faced scrutiny due to their high inefficiencies and risk of corruption.

Recent advancements in machine learning have enabled the use of market information to identify optimal opportunities for teacher-school matching. Also, the unified promotion of both temporary and permanent vacancies on a single digital platform significantly reduces time and effort costs for teachers. They no longer need to invest time and resources to visit various districts and schools to gather necessary information during the application process.

These matching algorithms have been extensively studied and tested in various contexts, such as in Ecuador (IADB, 2022), Peru (IADB, 2022), the United States (Abdulkadiroglu et al., 2017), England (Terrier et al., 2021) and France (Fack et al. 2019). These applications have resulted in increased efficiency and effectiveness in matching teachers with schools, leading to improved overall well-being.

Alongside centralized assignment platforms, a formula-based approach is employed to ensure the equitable distribution of teachers, focusing specifically on the most vulnerable schools. By accounting for the unique conditions and circumstances of each school, these formulas guarantee that students receive consistent teaching resources, regardless of administrative capacities in different regions.

Over the past three years, the Education Division of the IDB has formed several partnerships with education systems in Brazil, Ecuador, and Peru, effectively modernizing their systems and facilitating practical application. In Ecuador, the IDB supported reforms to the algorithm and rules governing the assignment of teachers to schools, leading to considerable efficiency gains (Elacqua et al., 2021).

The IDB has also supported the Quiero Ser Maestro Inter-Cultural Bilingüe competition, highlighting inter-cultural bilingual teacher deployment (IDB, 2022). In an effort to address inefficiencies and inequalities in teacher allocation, the IDB has designed cost-effective solutions on allocation system platforms in Peru and Ecuador, integrating techniques from the field of behavioural economics.

Additionally, the IDB has closely collaborated with the Municipalities of Rio de Janeiro and Recife and the government of Ecuador to develop more efficient formulas for identifying vacancy needs and distributing teaching hours at the school level.

Proposed short-term actions:

→ Review the existing deployment processes, and align and redesign the procedures for placement, transfer, and retention across the different routes, to ensure they are relevant and appropriate. (Already commenced)

Proposed medium-term actions:

→ Design a centralized choice and assignment system for teachers, allowing for increased efficiency, equity and effectiveness in matching teachers with schools. Include within this a mechanism for headteachers to choose from a shortlist of candidates. (Approved)

3.9. Teacher deployment to hinterland regions

Current situation

The uneven distribution of credentialed teachers among schools in the LAC region exacerbates social disparities (Elacqua et al., 2020). In fact, a considerable number of students are taught by provisional, uncredentialed teachers who lack the necessary qualifications and training to instruct in their respective subjects. This scenario restricts the learning opportunities of

millions of students, primarily those from lower socioeconomic backgrounds, indigenous communities, and Afro-descendant populations. According to Elacqua & Marotta (2020), one adverse effect of teacher shortages is that incumbent teachers often end up teaching at multiple schools, which has a negative impact on learning and equity (Elacqua & Marotta, 2020). Moreover, Bertoni et al. (2018) find that another harmful consequence of teacher shortages is the increased likelihood of uncertified and underqualified teachers instructing a high proportion of students, especially in more disadvantaged contexts.

In Guyana, qualified teachers are also unevenly distributed. The hinterland regions have both higher student-teacher ratios than the rest of the country and a smaller proportion of qualified teachers, creating unequal learning opportunities for students. This remains the case despite the introduction of a Remote Area Incentive and additional credit towards promotion, which have been used to attract teachers to these positions. There is, therefore, a need for further systems and strategies that address this disparity through a combination of targeted teacher recruitment in hinterland and riverine regions, and a careful design of incentives to encourage qualified teachers from elsewhere to move to and teach in these regions. This section will focus on the latter.

Addressing disincentives

Some of the factors that deter teachers from the coast from applying for jobs in more rural areas cannot be changed, but others can. It would be helpful to conduct some focus groups with teachers of different age groups and sexes to identify what would make them consider moving to the hinterland regions, and identify any disincentives that could be mitigated, as well as testing out potential incentive packages.

Elacqua & Rosa (2023) analyzed the preferences for certain school attributes among in-service teachers In San Paulo, Brazil. They found that the school's distance from the teacher's home, its average test scores, and teacher composition played a central role in teacher preferences, and that preferences varied by demographic. Location was particularly important for female and older teachers (>30 years). Women were also more likely to choose schools with a lower percentage of disadvantaged students, and younger teachers (<30 years of age) were more likely to request transfers to schools with more experienced teachers. It would be extremely useful to have such data for Guyanese teachers, even if in qualitative form.

Because while we can't change a schools' location, or its test scores in the short term, we can target those who are less sensitive to these factors. For example, location is less of an issue for teachers under 30, and men. As alluded to in the recruitment section, it seems likely that this is due to family considerations. We could, therefore, target our hinterland incentives package at men and women in their mid to late 20s, before they 'settle down'; not by setting requirements by age, but by targeting a particular stage of career development (e.g. those with PTOG certification – see 'career development incentives' below for more detail).

We could also consider what could be done to mitigate the downsides of these unchangeable factors, for example, by asking female teachers whether not wanting to work

in disadvantaged schools has anything to do with their personal safety, which could potentially be addressed with the additional security measures in schools.

More straightforwardly, it will be important to ensure that any factors that mitigate the less desirable features of rural postings – such as security, housing and travel allowance – are consistently present 'in practice' and not just in theory.

Financial incentives and their communication

Various types of incentive schemes can influence the geographic redistribution of talent, and should focus on prioritizing the most vulnerable areas. The design of teacher incentives should be guided by two key considerations: the nature of the incentives offered and the characteristics of the affected teacher population.

Economic incentives, such as salary compensations, have proven to effectively motivate teachers to relocate to less desirable areas (Bobba et al., 2022). In addition, the design of other types of incentives, such as housing provisions, career advancement opportunities, and financial aid for continuing education, can also influence teacher location decisions (Ye et al., 2023). Considering these diverse compensation options allows for the creation of complex incentive schemes tailored to specific contexts, acting as a compensatory mechanism for schools with longstanding performance issues due to their prevailing circumstances. Such a system must be carefully designed so that schools are not publicly marked out as being 'less desirable', as this could have the opposite effect to that which is intended.

It is also important to note that these schemes need to be properly communicated, as a lack of information among the target population has traditionally been a problem. Peru is an excellent example of a country offering multiple types of incentives to encourage individuals to accept less attractive positions, including factors like multigrade schools and geographical location (rural/urban), potentially resulting in salary increases of up to 30% (Bertoni et al., 2021).

The target audience for these incentive schemes must be carefully considered during policy design. IDB studies find that incentives targeted to 'high performing' teachers can effectively retain teachers in disadvantaged schools (IADB, 2022). Under the model suggested in this teacher policy framework, this would mean making rural and other equity-driven incentives dependent on different levels of certification. Incorporating performance criteria, like certification, in the design of incentive schemes is crucial to attract the right teachers to disadvantaged schools.

Career development incentives

The Chilean Pedagogical Excellence Assignment (AEP) is one of the few schemes in the LAC region to include both a quality mark for teachers and a bonus scheme for high-performing teachers, which pays them more to teach in disadvantaged schools. While there is some recent evidence it improves retention of high-performing teachers already in such schools, two studies on AEP found that it failed to encourage more good teachers to transfer to them

(Berlinski & Ramos, 2017; Elacqua et al, 2023). What is more, high-performing teachers "seem to use the award as a quality signal to stay or move to relatively high-achieving schools" (Elacqua et al., 2023), suggesting there are risks as well as benefits to formally recognizing teacher quality.

This makes it more important to include additional career-based incentives as well as financial ones, and to have more than one 'rung' in a teacher career ladder. Where there is just a single 'rung' or higher level of certification above being a qualified teacher (as there is in Chile), achieving it removes any incentive to continue to put in further effort to improve. It also reduces the levers available to pull from a policy perspective. Adopting the career structure proposal in this framework, in which jobs are linked to certification at three levels in addition to the initial teacher qualification, gives scope for some career-development based incentives.

This approach has been used in South Korea, where teachers gain advantages in seeking promotion to the highest levels of the career structure if they have taught in a disadvantaged area. This is described as playing a critical role in ensuring students have equity of access to high quality teachers, because of teachers' desire for higher status and salary (Kang & Hong, 2008). The same could be set up in Guyana, using both a financial and career-based incentive to get good teachers out to remote areas.

One example would be to target teachers who have achieved the PToG certification, by offering a range of 'mentor teacher' posts in remote schools, which paid more than 'mentor teacher' posts elsewhere. So far this is no different to Chile's policy of paying good teachers more for working in disadvantaged schools, but the additional layers to the proposed career structure means that more varied incentive can be added. It could be a requirement, for example, of certification at the AToG level, that a teacher spends at least two years in a rural/disadvantaged school (or five years at a more advantaged school).

Part of the requirement for their AToG portfolio could be a report on an improvement project or research project with a focus on addressing disadvantage, giving them a meaningful reason to be there. Once the MoE had decided on the number of 'mentor teacher' posts available in these regions in any given year, it could run a recruitment campaign and then offer training to successful applicants as a group (either as a single group or one per region). This group would then stay in touch over the two-year programme, through joint training sessions that further prepared them for their AtOG application, creating a cohort effect. By focusing on those with PToG certification, which teachers apply for 5-10 years after their full registration with the Teaching Council, this programme would target competent teachers in their mid-twenties. This group might be convinced to live in a rural location for a couple of years before they have children to help them with securing their AtOG certification, making them eligible for more senior posts when they returned to work.

This is just one example of the many possible career-based incentives that could be set up, once you have a robust certification system in place.

Conclusion

In conclusion, incentive schemes should carefully integrate a mix of incentives targeting the desired population, specifically higher-performing teachers. Program visibility is also crucial. Teachers cannot respond if they are unaware of available incentives. This is where combining the incentive program with centralized assignment platforms becomes advantageous. The complexity of the incentive schemes can be conveyed by displaying expected salary information on the platform, considering the characteristics of both the applying teacher and the displayed school.

Finally, the cohesive implementation of the described policies is important. While these policies do not necessarily have to be implemented together, the combined effect of their full implementation offers significant advantages. As previously mentioned, information delivery can be simplified and centralized, resulting in transparent, efficient, and equitable processes.

Proposed short-term actions –

→ Conduct focus groups with teachers of different ages and sexes to identify their reasons for wanting or not wanting to be deployed to remote areas, and to test out different incentive suggestions with them. [Proposal for MoE consideration]

Proposed medium-term actions –

→ Design a variety of multi-faceted incentives packages (including bonuses, career opportunities and other benefits) targeted at teachers with different levels of certification. [Proposal for MoE consideration]

→ Make these incentives packages visible to teachers, by including them in the deployment and transfer process (possibly through a Centralized Choice and Assignment System). [Proposal for MoE consideration]

4. Possible organizational responsibilities

4.1. Teacher management board/working group.
- design and run targeted recruitment programs based on analysis of needs.
- decide on how many promoted teacher posts are available, and where these are.
- collaborate with TSC and SB on design of transparent deployment and transfer procedures.

4.2. CPCE –
- initial teacher training
- assessment of ITT and recommendation of teachers for provisional licensing
- assessment of suitability for full registration at end of induction?

4.3. Teaching Council –
- review of ITE courses,
- develop standardized expectations for all ITT courses
- issue provisional licenses to teachers based on CPCE recommendation
- set up and maintain a register of licensed teachers, with records of quals and certs.
- design teacher expertise framework or expanded Standards document
- design certification evaluation framework aligned with the teacher expertise framework and standards.
- oversee assessment against the standards and expectations at different levels, and issue certification.

4.4. National Accreditation Council –
- Accredit ITT courses based on the Teaching Council's expectations?
- Accredit NCERD standards-based courses based on the Teaching Council's teacher expertise framework?

4.5. NCERD –
- review existing practice in the running of learning communities
- design and deliver training on running professional learning communities
- design courses based on the teacher expertise framework from the Teaching Council
- deliver these courses, and/or broker other organizations to do the same.

4.5. Teaching Service Commission and School Board –
- collaborate with Teacher Management Board/Working group to design transparent procedures for deployment and transfer, possibly using a Centralized Choice and Assignment System.

- investigate concerns of professional misconduct, and where appropriate, recommend to the Teaching Council that teachers be 'struck off' the register.
- manage the appeals process for teachers who are struck off.