

Mainstream School Education: a Critical Assessment

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The pursuit of quality education in Bhutan dates back to the beginning of modern education system itself. All the Five-Year Plans, without exception, have devoted a section to the subject. And yet, after 60 years of development and reforms, quality education remains as elusive as ever.

The notion of quality itself is subjective. For the school administration and the citizens, quality may simply be students' performance as is measured by national examinations. For some, it refers to the values they have imbibed while for still others it may be how well the graduates are prepared for the labour market. Or it could be all of these and more. For the purpose of this paper, let us confine that notion to the results of national examinations and assessments which encompass the learning schema of our schools.

With the professional maturity of the educators, examinations have become more sophisticated, assessing more than the memory power of its pupils, including their analytical and higher level skills.¹ Over the last eight years, the Pupil Performance Report of the Bhutan Council for School Examination and Assessment (BCSEA) for Class 10 (end of basic education) show some laboured improvements in English, Economics, History-Civics-Geography (HCG) and Science and a dramatic improvement in Computer Applications.² This was, however, offset by the deterioration of student performance in Dzongkha and Mathematics.

¹Asia Pacific Journal of Education · September 2010, Evolutionary trajectories in school assessment systems: The case of Bhutan.

²It could be because of the massive investments in computer education across the grades implemented as part of the Chiphen Rigphel, supported by GOI and outsourced to NIIT. This was not pursued, for this paper, and could be a subject for research.

Subject	Mean Score		
	2010	2013	2018
English	52.61	56.73	57.93
Dzongkha	69.75	65.33	64.06
Economics	58.20	52.76	62.68
Mathematics	51.53	53.31	49.84
History, Civics and Geography	54.99	60.15	56.44
Science	49.02	53.18	50.14
Computer Applications	58.79	74.05	77.21

Table 1: Mean scores in Class X examinations (2010-2018)

Overall, mean scores continue to be low, with most subject scores (except Computer Applications) below 60 percent. The pass mark for subjects is set at 35 percent and, because of this, despite their low performance, 90 percent of the students pass the examinations every year. Some would argue that this practice contributes to the lack of quality as students who have not mastered the assessed level are promoted to the next class.

Even by the Ministry of Education’s (MoE) own standards, the performance of the majority of the students has been poor. The clincher came with OECD’s PISA-D results for 2017³ conducted with a sample group of 15 year old students.

DOMAIN	BTN	ECU	GTM	HND	KHM	PRY	SEN	ZMB	PISA-D AVG
Reading literacy	45.34	52.66	44.50	44.74	34.62	47.03	37.37	27.88	41.26
Mathematical literacy	38.84	41.69	31.33	33.21	30.29	31.44	27.52	19.08	30.65
Scientific literacy	45.10	46.98	39.82	40.71	34.85	41.16	33.25	31.19	38.28

Table 2: OECD’s PISA-D results 2017.

³BCSEA and OECD, Education in Bhutan, Findings from Bhutan’s Experience in PISA for Development.

Bhutan performed poorly at 38-48 percentage points below the PISA reference countries. But, amongst countries that participated in the PISA-D testing programme, Bhutan did very well.⁴ The question is, therefore, what standards do we pitch ourselves at? Should we be satisfied as the better performing country amongst poor performing countries of the lower middle income group or should our aspiration be for our average students to score 90 percent and above (to equate with the pass rates), and be ready to be ranked with OECD countries where our students perform well in higher conceptual learning as well as the basics?⁵

Whatever our goal may be, we cannot transform a less than average performing education system to a high performer overnight. We have to contend with what our system is capable of delivering. Let us look at some of the core elements that make up Bhutan's education system, and examine how one might improve them. These are:

- Enhancing the teaching pool;
- Improving student readiness for school;
- Improving teaching-learning resources; and
- Improving management of the education system.

Enhancing the Teaching Pool

Qualification	2003	2008	2013	2018
Masters	341	436	660	1,326
PG Diploma			725	1,453
Bachelors	585	2,538	4,066	5,319
Diploma/Certificate	3,080	2,768	2,374	726
Total	4,006	5,742	7,825	8,824

Table 3: Teacher Qualifications (2003-2018).

⁴Bhutan is amongst the 9 countries which participated in the PISA-D to gain experience from this initiative to help prepare for participation in the PISA 2021 cycle. This will help Bhutan understand how the performance of students in the country compares, in relation to international benchmarks and to countries facing similar challenges elsewhere, and to identify the factors that are associated with under performance in order to effectively eliminate it.

⁵PISA-D report shows for example that in Reading Literacy, Bhutanese students are best on retrieve and access aspects and weakest in items that involve either "Integrate and interpret" or "Reflect and evaluate".

At face value, teacher profiles have improved dramatically over the past one and a half decade. This has been achieved through a two- pronged approach - upgrading the minimum qualification for entry into teaching to a B.Ed. Degree and upgrading the qualification of serving teachers through training, in a combination of distance learning and classroom instruction to enable those with Certificates/Diplomas to earn a B.Ed. And those with a B.Ed or Post Graduate diploma to obtain a Master's Degree in Education.

Two questions need to be posed regarding pre-service education. The first is the selection process for training. As is often pointed out, teaching does not attract the best talents, with many opting to teach as a last resort for a source of income. Therefore, how could the selection process ensure that the most promising candidates are admitted into the profession? And second, more importantly, how effective is teacher education in transforming the less-than-average performing school leavers into competent, motivated teachers? These questions have been posed elsewhere⁶ but there appears to have been no attempts to seek answers.

Similarly, there has been no assessment of the effectiveness of the training programmes set up to upgrade in-service teachers' qualifications. Thus, while a quantum leap in qualitative improvements of the teachers have been achieved in the MoE's administrative accounting system, it has yet to be established how this has benefited the students.

Equally impressive, the rate of increase in the number of teachers has outpaced that of the rate of growth in enrolment - student-teacher ratio (STR) has halved for every category of schools over the last decade.⁷ However, has improvement in the STR led to teachers taking greater care of the students, the provision of remedial classes for those in need, and the enhancement of student achievement levels across schools and grades?

Historically, whenever there were shortages of teachers, Bhutan relied on expatriate teachers. Currently, this continues on a smaller scale. Their numbers augment the pool of teachers and their varied cultures enrich the system. Another potential source of enrichment may come from within the country, from the local community. An increasing number of people of various backgrounds and skills who are retired or about to retire from their

⁶See for example A Review Report on the Quality of Education, Prepared by the Special Committee on Education for Submission to the 18th Session of National Council, 2016.

⁷STR has been reduced from 32:1 in 2003 to 28:1 in 2008, 21:1 in 2013 and 17:1 in 2018. Please see for details in the relevant sections the MoE's Annual Education Statistics.

professions, including teachers,⁸ may be willing to contribute their know-how as part-time teachers. Also, with the rising education level amongst the Bhutanese, parents can be expected to play a more proactive role in the education of their children. Some already help with homework and fund raising but they could do more. Parental involvement will benefit the children and may have important positive social benefits. There may be other ways to enhance the teaching pool. We will discuss more under the Improving Management section.

Improving Student Readiness for School

Another important consideration for education quality is the readiness of a student to learn. A little over a decade ago, most learners entered school with no preschool experience. That has changed since 2008, when the government started promoting Early Childhood Care and Development (ECCD). As of 2018, there were 8,499 children enrolled, comprising 24 percent of the three-to-five-year age group. MoE plans to scale this up to 50 percent of the age group by 2023.⁹

Although the evidence of the benefits of ECCD have been reported,¹⁰ the effectiveness of the programme is largely dependent on the competencies and motivation of its facilitators. MoE will need to build up a core group of experts in this field who will monitor and support the facilitators and the centres. Otherwise there is a risk that a good number of the centres will only serve as child-minding facilities.

We also need to be mindful that parents are the primary care givers and best placed to support their children's cognitive, social and emotional development. This may be true of all societies but is especially relevant for Bhutan where the government is championing GNH. With this in mind, the national ECCD programme's main thrust should be to provide parents with the relevant knowledge and skills, perhaps through the mass media. The ECCD centres could also play their part by supporting parents/family members who are unable to do this because of work, illiteracy, etc. At present, attention is focused on the development of the centres and not in reaching out to the parents with the information on the best practices for

⁸Please refer to RCSC, Annual Civil Service Statistics, 2017, page 60 which provides a growing number of Civil servants due for retirement.

⁹GNH Commission, 12th Five Year Plan: NKRA 3: Poverty Eradicated and Inequality Reduced.

¹⁰National Statistical Bureau, Bhutan Multiple Indicator Survey (BMIS) 2010. Also refer to Save the Children and MoE, 2015 National ECCD Centre Program Impact Evaluation.

childcare and development. This needs to change. Research points to the critical importance of the first 1000 days in a child's life. During this period the brain is most plastic, grows the fastest, and is most responsive to the outside world. The brain's neural pathways that support communication, understanding, social development, and emotional well-being grow most rapidly in these first three years.¹¹ To date, there are no government programmes that address these early stages of development and urgently needs consideration. The best agency to lead this is the Health Ministry as they already have extensive networks that could reach the target groups (usually mothers) through the Post Natal Care system. The mass media can also be used for this.

Improving Teaching-Learning Resources

Since 1966, a team of officers from the teaching cadre have been engaged in developing curriculum and writing or selecting textbooks for the Bhutanese schools. There is a well-designed curriculum framework which articulates the learning standards for each grade in each subject. The curriculum framework and materials are constantly updated and revised, based on feedback from teachers and in accordance with imperatives determined by the government.

All learning materials, except stationery items in urban schools, are provided free. The availability of learning resources is not an issue. At times, it is a matter of logistics – problems arising when supplies are delayed. The Royal Education Council¹² (REC) has also made it possible for basic curriculum materials to be downloaded from its home page.¹³

The Internet has been an indispensable resource and teaching tool. Towards this end, 7,067 teachers have been trained in basic information technology through the Chiphen Rigpel project (2010-2014). What remains is to connect the schools to this immense worldwide resource. As of April, 2018, only 53 percent of our schools have internet connectivity,¹⁴ mostly with inadequate bandwidth. Therefore, to enable teachers and students to download learning materials, the government should make it a priority

¹¹Grantham-McGregor, S., Cheung, Y., Cueto, S., Glewwe, P., Richter, L., Strupp, B., et al., (2007). Developmental potential in the first 5 years for children in developing countries. *Lancet*, 369: 60-70

¹²Department of Curriculum Research and Development, Ministry of Education has since 2014 been subsumed under the Royal Education Council which was established as an independent body for Education Research in 2007.

¹³www.rec.gov.bt

¹⁴MoE, Annual Education Statistics, 2018.

to connect all schools to the Internet with the appropriate bandwidth for the student population. Amenities such as safe drinking water supply and toilets have also been recognised as being important for the education and well-being of the students and efforts are underway to improve them in all schools. In addition, the central schools have started to provide their children with soap, toothpaste, school uniforms and bed clothes, etc. How this impacts learning is not clear, but it has certainly made a lot of parents and their wards happier.

Improving Management of the Education System

Once again, the most important resources of the education system are its teachers. Unlike many other public education systems in the region, Bhutan does not have teacher absenteeism and the associated issues.¹⁵ However, MoE still has to ensure that this resource is optimally deployed and directed to bringing about real, qualitative improvements in the classrooms.

Teachers are a mixed group, with varying qualifications, experiences and skills. Amongst them there are teachers who are experts at teaching language or instilling discipline without resorting to corporal punishment. Likewise, there are teachers whose expertise is in making fractions or higher conceptual mathematics understandable, as there are those who inspire children in creative writing. There are also teachers who are good at dealing with slow learners or children with disabilities. How well such expertise is used to benefit the education system is a management challenge and must be taken up if we are to make substantive and sustained qualitative improvements in student achievement levels. For a start, we could create a roster of experts, a system of peer support across schools, and build a nurturing a culture of self-directed professional development.

A core management objective must be to keep the teachers motivated. The job satisfaction level amongst our teachers is reported to be about 68 percent.¹⁶ Factors, ranging from salary scales to working conditions, are at play in determining motivation and morale which are difficult to be reformed overnight. But there are also things which can be addressed with relative ease. One of them is for administrators and the government to treat the teachers with decency, provide recognition when it is due and give them a voice in matters that affect them and the education system.

¹⁵Please see findings from the World Bank, Discussion Paper Series, Bhutan Learning Quality Survey, 2009.

¹⁶Royal Education Council, (2013), Teachers' Job Satisfaction in Bhutan.

The following sums up the sentiments of many of our teachers:

“We all know that when we have a voice in what happens around us, and that when our work has more meaning in the community that we live in, our morale is, for obvious reasons, high. Karma Dorji.”¹⁷

Besides good management of teachers, there are a number of pertinent points that need highlighting: (a) information systems, (b) effective engagement with development partners and (c) effective and efficient use of financial resources.

Information System

The basis of good policies and sound management practice is a good information system. There are several information systems within the MoE that are generated by different branches of its administration. These include the examination results and assessment studies of BCSEA, the administrative reports of the Education Monitoring Division, the information system of the Human Resource Division, and the EMIS of PPD. Historically, there has been a glaring gap that correlates teachers' and administrators' accountability for student performance. There are attempts being made within the RCSC and MoE to address this through the establishment of a new teacher performance evaluation system.¹⁸ These should be continually refined based on the feedbacks and reviews from administrators and teachers, and supported by a more appropriate and robust personnel management information system.

In addition, the Annual Education Statistics report needs reformulation. After all, what gets counted is important. While most of the enrolment targets for the MDGs have been fulfilled, the report continues to be dominated by education coverage statistics. Instead, it would be more useful to focus on information that is deemed essential for education quality, such as examination scores, education assessment results, teacher performance, job satisfaction level, internet bandwidth per student, and different aspects of the costs of education.

¹⁷A teacher, Principal and Chief EMMSD, in Teacher Morale in Bhutan, presented to the Seminar on Education Quality, NIE, Paro, 2008.

¹⁸Please see Performance Appraisal Customised for Education Sector, Kuensel, 9 April 2019.

Effective Engagement With Development Partners

Development partners, such as the UN agencies, World Bank, Asian Development Bank and some friendly countries have always played a key role in supporting our education plans and policies. In engaging with its partners, Bhutan has often prided itself in determining its own programmes and getting partners to support it. But this can be overdone, as was evident from the background document of the recent Round Table Meeting which appeared to be overly preoccupied with meeting the financing gap of the plans of the previous government, as opposed to seeking help to fill its knowledge gaps.¹⁹

It is likely that, in some corner of the globe, situations similar to Bhutan's have been resolved with the engagement of some of these organisations. Access to such knowledge and expertise could help Bhutan leapfrog stages of our development. There appears to be tools and programmes which could be particularly relevant (after adaptation) to Bhutan, such as the World Bank Group's Systems Approach for Better Education Results (SABER).²⁰ Therefore, the Education leadership needs to explore and exploit such opportunities.

Efficient and Effective Use of Financial Resources

In 2018, the Education Sector was allocated 21 percent of government expenditure.²¹ Bhutan's spending on education, as a proportion of the country's GDP, is the highest compared with countries in the South Asia region, as well as those participating in the PISA-D. If this was the case, how efficient is our education system? And, more pertinently, why has the enhanced input into the system not resulted in a commensurate improvement of the students' achievement?

¹⁹Please see Joint Task Force (JTF) for the 14th RTM, RGoB and United Nations System in Bhutan, Enhancing Happiness and Sustainable Development Through Partnerships, March 2019.

²⁰Please see <https://openknowledge.worldbank.org/handle/10986/26463> for more details.

²¹National Statistical Bureau, Statistical Yearbook 2018.

No study has been conducted to determine what inputs contribute to student achievements and to what degree. The National Education Assessment report for 2013-14 had, however, established a positive correlation of student performance to the shorter distance from home to school. It also found that boarders do not necessarily have higher achievement levels.²² Yet the government continues to be preoccupied with boarding facilities in its central schools which, from the 2018 baseline of 20 percent of students, will be expanded to 70 percent.²³ This not only takes away precious resources from other national imperatives,²⁴ it further increases the annual recurrent costs.²⁵

The tenet in education planning is that no matter what reforms are instituted to enhance education quality, if it does not filter down to the classroom, it is a futile exercise. And by the same reasoning, classrooms are where we need to devote the nation's energy and resources. That is where the pertinent targets need to be set. That is where our situation analysis and planning should begin and new policies initiated to achieve the quantum jump in student achievements. The rest are pretty distractions or costly sociological ventures that have little to do with education.

²²BCSEA, NEA 2013, page 10 which reports "The day scholars outdid the boarders in English performance by 4.48 percentage points" and in Mathematics, "...the boarders performed slightly better."

²³Please see GNH Commission, 12th Five-Year Plan, NKRA 7: Quality of Education and Skills Improved

²⁴For example the Kuensel (1 April 2019) reported that Bhutan will not be participating in PISA-D for 2021 cycle because of budgetary constraints. Please refer to the story, Student Learn without Understanding by Yangchen C Rinzin.

²⁵Please see MoE, Annual Education Statistics 2018, p64. Average costs per student in a regular school is Nu 30,000 while that of a boarder in Central School is Nu 59,350. This does not take account of the recently announced proposal of MoE to increase the stipend for school feeding programme.