



LEARNING

TEACHERS HELPING CHILDREN BECOME BETTER LEARNERS

STORIES OF THE 2017 PRINCESS
MAHA CHAKRI AWARDEES

Juan Miguel Luz

Princess Maha Chakri Award Foundation

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Teachers Helping Children Become Better Learners

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Author: Juan Miguel Luz

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About The Princess Maha Chakri Award

On the occasion of HRH Princess Maha Chakri Sirindhorn's 60th Birthday Anniversary Celebration in 2015, the Princess Maha Chakri Award was established in recognition of HRH's contribution, commitment and devotion to education and particularly the teachers.

HRH herself is a devoted teacher at the Chulachomkiao Royal Military Academy. HRH understands that teachers are an important key success factor to students' achievement. Thus, HRH implements several educational projects that build capacity for teachers and improves the quality of lives of the people, particularly in the remote areas not only in Thailand but in other countries.

Every two years, the Award is given to one excellent teacher from each of the eleven Southeast Asian countries namely Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Timor-Leste and Vietnam, who have made impact on their student's lives and their communities. While the Princess Maha Chakri Award Foundation provides the general criteria for the selection of the teachers, the Ministry of Education of each country adds their own details and mechanism for selection based on their country context.

The Award serves as a mean to promote best practices of teachers in Southeast Asia. Thus, a region-wide community of practice can be developed. The Princess Maha Chakri Award Foundation is aware of the need for continued professional development; therefore, the Foundation arranges and organizes enhancement programs for the Awardees after receiving the Award. The programs include study visits, professional development workshops, and funding of scale-up activities to benefit more students and teachers.

The Princess Maha Chakri Awardees considers HRH as their guiding light. They follow HRH's foot-steps and continue their teaching journey with passion for their students. These teacher-awardees are proof that they are teachers with great hearts who deserve the Princess Maha Chakri Award.



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An Introduction on Learning

Living organisms thrive and evolve by learning. Single cell microorganisms sense and respond to changing environmental cues and signals. If the organisms survive, information on what they have encountered and how they respond would be internalized, i.e. memorized, and serve them in subsequent encounters and form the basis of future actions. This is learning in its very simplest form. In some sense, learning assures survival and propagation of future generations. Taking this simplistic view of simple living organisms give clues to the fundamentals and basis for learning by individuals. Sense, respond, memorize, and the subsequent actions (responses) become more refined. Learning is key to cyclic and self-adaptive process driving survival, gene propagation, and evolution. Learning becomes, in some sense, selfish

In more complex multicellular organisms, animals, and human beings, this is more varied, complex, and intricate. Apart from individual learning, one has communication and interaction between individual cells and animals. From fundamental ways of communication such as chemicals, later, on body language, pre-language vocal signals/ proto languages, and languages are developed. In addition to individual learning, collective and interactive learning emerged among herds of animals, social animals (such as elephants and lions), primates, and human. Signals are not just natural signals from the environment, but from multitudes of interactive individuals. Learning has become highly contextual in its contents and environment, and dynamic in interaction and communication. It is this highly contextual and dynamic learning that sets mankind apart from animals. In this sense, learning precedes education.

Formation of socio-political structures from villages, towns, states, and countries, on one hand, and emerging of economic structure through industrialization and urbanization, on the other hand, gives learning a new paradigm and a new setting. Learning is no longer for survival and propagation. Learning was gradually transformed into a socialization and a vocation orientation process. Family-based learning, community-based learning and vocation-oriented learning followed.

Learning in a structured environment is beyond sheer survival, but towards improvement of life quality through wealth accumulation, ensuring cohesive social structure and socio-economic strength, and ultimately, learning leads to power.

Structured society leads to structured learning, what I would call education. In an education setting, content and processes are formalized, and, arguably with questioning by some, more rigorous. Education becomes more protocol-based from conceptualization, design, deployment, implementation, assessment, and testing. One would hardly imagine such a ruled-based approach to learning. **Learning** is by nature **human-oriented, autonomous, individualistic**, and can be **self-directed**. Education has less of these attributes. Learning takes place anywhere, any time. A child can definitely learn from playing alone, by himself, making his own toys, or even from tripping over a stone, falling, getting hurt, and getting up. A child has learned but is not said to be necessarily educated. A child is a learner, learning from his own experience.

Within a standard “education” process schools become institutionalized places for learning. I have observed and noted on many occasions that the term “school”, presently used, has deviated from its origin. In the old days before industrialization and institutionalized education, a **school was an assembly of scholars, a bastion of philosophers, and thinkers** for learning, in a very broad sense. **Schools were where dialogue took place and where** interactions and intercourse prevail. We have the School of Athens, the School of Socrates, the School of Taksila, the School of Nalanta. A school in this context is not physical, but intellectual and spiritual. A school in today’s context, on the other hand, is physical, an established body or organization. Schools are no longer assemblies of scholars, but assemblies of teachers and students; those who teach and those who are taught. **In present day schools, no dialogs take place; monologs do.** Schools have become less interactive and more inactive; more of one-way discourse rather than intercourse or dialogue.

In the standard education process, a teacher teaches so that students are supposed to “learn”. We have arrived at and reached a conflict

in the dichotomy of “**learner learning**” and “**teacher teaching**”. The standard approach is students go to schools, going through schooling, and learn. Since the beginning of the 21st Century, we seriously question whether a child learns in school by being taught. Getting educated adds more complication as “getting educated” connotes values and social norms on top of gaining knowledge in schools. Values and social norms in many instances are imposed by authorities, rather than derived from reasoning. The intellectual and spiritual nature of a classical “school” has vanished. A school in a broad sense has a more noble mission than imparting knowledge to students. A school is a place for socialization. In many cases, socialization has inadvertently and sadly become synonymous with social activities and events. A school is a place for cultivation of intellect and spirit, not just instilling values and social norms. Education is not a simple and technical tool, but ways and means with vitality to practical and noble ends. To me, **learning, schooling, and getting educated** are not synonymous but overlapping. They deserve to be scrutinized.

With increasing complexities, dynamism, and uncertainties, recently unravelling in technology disruptions within the last few years and the ongoing Covid-19 pandemic, getting a child educated and learning necessitates more than sending a child to school. Schooling itself must change, but I will not discuss this here.

I have continuously argued that we need a paradigm change. Instead of bringing students to school (to education), we must bring school (education) to children, families, and communities. Learning media, learning tools, radios and TV, digital technology is readily available. I have calculated that if a typical Thai student goes to school 40 hours each week, 15 weeks each semester, two semesters a year, without being absent or schooldays not curtailed for some reason or another, the schooling hours represent only 17 % of hours in one year. Allowing a student 8 hours a day to sleep and finish his or her private business, this represents 33% in one year. There remains another 50% of time in a year, most of which is time a child spends with his/her family, at home and within his/her community. How we, parents, teachers, and responsible citizens put some thoughts and efforts into educating our children at home and within our communities, is definitely within our means and capability.

We should not push children more to school or push more responsibility to teachers and schools. We should allow our children to be autonomous and self-directed learners with their smart phones. We should find time more for our children. It is the quality time that only parents can give. Quality time that our children cannot find in school, with their peers, or with their teachers, or even from anonymous and dubious characters in social media and through smart phones. We should pull back children to family and community.

We should recognize that the first teachers are parents. Later, parents may not be the only teachers, but remain the primary teachers, whereas the community is the prime school. Schools themselves must change, becoming more family and community oriented.

The time is now to change.

I would like to end my note by quoting President Barack Obama, viz.,

*“Change will not come
if we wait for some other person,
or if we wait for some other time.
We are the ones we have been waiting for.
We are the change that we seek.”*

Dr. Krissanapong Kirtikara



PRINCESS MAHA CHAKRI AWARD

1

Cooperative Learning

Lim Soh Ngo

Brunei Darussalam



“Cooperative Learning is an instructional strategy where small groups of students work together on a common task.”

It was a bright Monday morning when the first bell rang to start the school day in Madam Lim Soh Ngo’s classroom at Maktab Duli Pengiran Muda Al-Muhtadee Billah, one of the premier Sixth Form Centers in Brunei Darussalam. Her school provides pre-university education for students preparing them for higher education in various universities. The school caters to students from Year 12 to Year 13. Of about 800 students, 57% are girls and the balance, boys. The school is in an urban area where most of the students come from average family backgrounds that are middle income.



Students are mostly Bruneian of Malay and Chinese descent. A small percentage are non-locals of Indian, Filipino, Korean, Thai, and other ancestry. There are students with some minor disabilities – hearing impairment, autism – but there is no social discrimination among students, Madam Lim reports.

This year is Madam Lim's 30th year in the classroom teaching high school science, notably chemistry. This week's topic is on "Design of experimental procedures". To get the class started, a specific problem is laid out to be solved by students working in five groups of four students per group. Grouping of members are normally assigned by the teacher using heterogeneous factors in terms of academic ability, gender, and ethnic backgrounds.

A teaching strategy used by Madam Lim is the use of cooperative learning in groups.

Cooperative Learning, also called small-group learning, is an instructional strategy in which small groups of students work together on a common task. In a subject such as Chemistry that is inherently difficult for many students, the teaching strategy is to break down the overall task into smaller parts which can be solved in a step-by-step manner. Complexity is simplified in the process. In the classroom, groups of students work in teams each individually accountable for part of the task while working together without formal role assignments.

According to David Johnson and Roger Johnson (1999), there are five basic elements that allow successful small-group learning:

- **Positive interdependence:** Students feel responsible for their own and the group's effort.
- **Face-to-face interaction:** Students encourage and support one another; the environment encourages discussion and eye contact.
- **Individual and group accountability:** Each student is responsible for doing their part; the group is accountable for meeting its goal.
- **Group behaviors:** Group members gain direct instruction in the interpersonal, social, and collaborative skills needed to work with others occurs.

Cooperative learning, in effect, "flips the classroom" changing students' and teachers' roles. The ownership of teaching and learning is shared by groups of students and is no longer the sole responsibility of the teacher. This includes the setting of goals and the facilitation of

learning. Students have more opportunities to actively participate in their own learning, questioning, and challenging each other, sharing, and discussing their own ideas, and internalizing their learning.

Some of the challenges in using cooperative learning include releasing the control of learning, managing noise levels, resolving conflict, and assessing student learning. Carefully structured activities can help students learn the skills to work together successfully, and structured discussion and reflection on group process can help avoid some problems.

The structured experience in the classroom is intended to help students make the school-to-work transition easier by focusing on real-world problems solved by using certain frameworks and methodologies learned in the classroom. A major aspect of this teaching strategy is to **'Learn by Doing'**. This complements the scientific method of experimentation used in Science. At the level of basic education, the learning is still largely classroom-based unlike at the university level where this arrangement can include internships, service learning and clinical placements. (University of Waterloo)

In Madam Lim's classroom, students are grouped into learning teams which are reshuffled every three months. This allows students to establish strong relationship within groups but also allows them to develop new work relationships during the school year.

"I think it's important that students care for every member of the class and that the better students are always helping the weaker ones, sincerely guiding them to help them to understand," she smiled. "Because of the strong bonds they have established with each other, my Chemistry Lab is always like a 'Home Room' to my students. It is where they gather to talk, to study and to help each other during their free time. And the comment that I constantly get during parent teacher meeting is their child is forever doing work on chemistry. In fact, I do not give them lots of work. I feel that students take their own initiatives to try to become better themselves."

Her teaching journey

Madam Lim Soh Ngo began her teaching career in 1990 as a science teacher at the Lower Secondary Level.

“What inspired me to be a teacher?” she asked. “To be honest, I had no real desire to be a teacher growing up. Being a teacher was never on my long list of ambitions ever since I was at young age. It was not until I came across one teacher in my secondary school years who was both loving and caring. Datin Hj Aishah Binti Hj. Muhd Hussain, my Biology teacher who later became Director of Schools in the Ministry of Education, taught with great dedication. She was friendly and approachable. But, most important of all, she showed no favoritism towards any students, let it be high or low ability.”

Madam Lim acknowledged that she was not the top student in the class neither was she the weakest. Like many other students, she said she was an average student and normally went unnoticed. But in this class, she could feel that she was cared for by this teacher as did every single student. “I felt I was ‘somebody’ in the class,” she recalled, “and I started to feel valued. That was the first time I ever had this thought: If I were to be a teacher, I want to be somebody like her, or even better. And that’s when I started thinking about becoming a teacher.”

Madam Lim graduated from University of Brunei Darussalam in 1990 with a B.Sc. (Education) degree majoring in Chemistry with Mathematics as a minor. She started her teaching career that same year. After nine years in the classroom, she felt the need to upgrade herself and decided to take a master’s in science education degree graduating in 2000.

Over her 30 years of teaching, she has been posted to 4 different schools (Awang Semaun Secondary School, Sayyidina Othman Secondary School, Muda Hashim Secondary School and Duli Pengiran Muda Al-Muhtadee Billah College). All the schools are government schools where English is the medium of instruction. Madam Lim has taught students at different levels from lower secondary to upper secondary and then at pre-university level. Her last assignment was at the pre-university level (Year 12 to Year 13)

“This experience actually benefits me and allows me to have a better understanding of students’ behavioral problem as they grow into different stages of their teenage years. Because of this, I can establish strong relationship with my students and communication with them becomes easier. Another benefit of me teaching students from Year 7 to Year 13 is that I know exactly how to guide students to understand a new concept by linking ideas together from the knowns to the unknowns as I am fully aware of what students have learnt at lower levels. This makes the understanding of the topic easier and more meaningful for students.”

Over the years, Madam Lim has had different duties and responsibilities in the different schools. In the beginning, she was Assistant Registrar before moving on to be Head of Department, Head of the Subject-based Committee, Head of the Staff Professional Development, Head of the Mentoring Program, and Committee member of the Counselling Section. With each new responsibility given, there were new challenges.

A passion for teaching

People have asked Madam Lim, how have you stayed so long in this profession? Was she ever bored or looking for something else to do?

“It is probably my passion for teaching which keeps me going”, is her reply. “I love teaching. I enjoy the interaction with students in my classroom. I feel that the classroom is just the place for me. And it is also the sense of satisfaction that I get seeing the successes of my students in their lives. Appreciation from students and parents is also one the main factors which keeps me in this profession. Sometimes, just a simple ‘thank you’ card or text message from a student or parent can really warm my heart.”

Over the years, strong bonds have been established with students.

“I love my students,” she avers, “I strongly believe that communication with them is important. I do not only talk to them; I listen to them and observe the unspoken gesture to get to know them

better. I can gain their trust. To them, I am not just a teacher, I am a mother and, a friend. I may not be a qualified counselor, but to them, I am one who they can confide in. This is how I reach out to students and touch their hearts. When the students open their doors to me, learning can occur much more easily.”

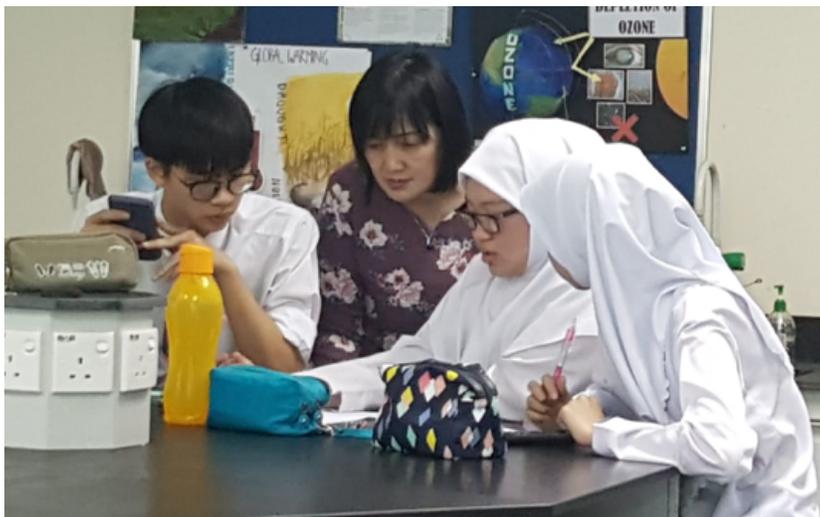


Happy students in Chemistry Class

Preparing for class

“I normally prepare my scheme of work at the end of the school year in November, December,” said Madam Lim, “to ensure that as much of the syllabus required will be covered within the year, leaving enough time for revision and preparing students for exams. In preparation of the yearly scheme of work, I will normally study the syllabus material carefully such that the topics to be taught will have logical order considering the preceding and succeeding syllabus content to avoid the lack of skills or acquired knowledge for a full understanding of each topic. When the scheme of work is prepared, I have to make sure that my pace of lesson is aligned with the scheme.”

Madam Lim prepares a weekly plan with a more detailed description of how a lesson could be conducted and activities carried out for each lesson. Despite having many years of teaching experience, she reviews each lesson from time to time within the week because every cohort of students are different; hence, the strategies used would differ, too. In cases where certain students do not understand a certain concept, she would explain it using different approaches in small group sessions or even, one-to-one.



“Beside subject matter mastery,” she explained, “I am also constantly trying to develop 21st century skills in students to prepare them to be better individuals when they move to their workplace.” To do this, she does a lot of group work in her class, encouraging students to interact, to discuss a given problem, to question each other, and to modify the idea. In this way, students are more able to relate ideas or concepts and improve their problem-solving skills. It also helps to transform passive learners into active thinkers. And through group work, students’ relationship become very strong helping each other to ensure the success of everyone instead of ensuring their own success only. “This is the type of attitude and collaboration skills that I have always wanted to implant in our students.”



Students helping each other during group work session

What makes a teacher, better?

Madam Lim thought for a moment sitting in her classroom. “I strongly feel that what makes me a better teacher today is through lesson observations. By this, I mean not only observing others but also being observed by others.”

When first asked to teach combined science course with Chemistry, Biology and Physics components, she used to have problems in delivering concepts in Physics which was not her discipline of study. To overcome this shortcoming, she sought the help from the experts including fellow teachers and requested to sit in to observe how the concepts could be delivered to help her prepare. She would do this with slight modifications where necessary, to suit the needs of her students. By observing others’ lessons, she learned different approaches to teaching. Interestingly, in later years, she found that she was not only learning by observing lessons from the more senior teachers but also from younger ones. “The younger generation is being exposed to the latest pedagogies

and the use of education technology which was not taught during our times,” she said. “I was learning new things from them.”

Many teachers feel uncomfortable when their lessons are being observed by others. “I have been observed countless times by inspectors, by officers from ministry of education, by school administrators, heads of department, mentees, etc.” she said. “What is great about being observed is that I can get feedback from the observers not only on what went well, but more importantly, what could be improved. This has made a positive impact on the quality of my teaching and helped me to achieve greater heights in my teaching career.”

Developing student potential

For Madam Lim, another important quality that a teacher needs to possess is the ability to explore students’ potential and maximize it. “No student should be left behind” is a saying she subscribes to.

One student she had was labelled a ‘slow learner’. Many considered him as ‘hopeless’. He had been struggling very hard to keep up. Madam Lim tried to help him with ‘one-to-one’ sessions for a few months, using up almost all her free time during school hours. To everybody’s surprise, he scored an ‘A’ in the ‘AS’ exam. So much more motivated, he continued to work hard, seeking help whenever he had problems. In the final ‘A-Level’ exam, he scored another ‘A’, so she felt that he wasn’t actually a slow learner, but he was struggling at the beginning because he did not have a good foundation to start with. The ‘one-to-one’ sessions helped him build a foundation on which he could stand.

“As teachers, we need to be able to explore the potential of our students and maximize it. We should not give up on any student so easily.” She said. “I met this student one year ago and was pleased to know that he had received a scholarship to do a chemical engineering course in Germany after he completed his ‘A’ Level in my school. Today, he is working in a Petroleum Company. What’s even more touching was he brought his wife and his baby to greet me and told his wife that he

couldn't have done it without me.”

Chemistry is not an easy subject to master. Madam Lim spoke of students who were weak in Chemistry and about to give up on the subject. With such students, she would take them in small group sessions, guiding them with great patience, starting them with work that is normally manageable by them before slowly increasing the level of difficulty in the problems given to them. In this way, they start to build up their confidence in the subject, willing to take up challenging questions with no fear of failure or rejection. “They may not have exceeded in the subject, but they were taking a big step towards improvement. Cooperative learning among peers where students are encouraged to contribute ideas during group discussion helps learning and boosts confidence. I am proud to say that many of them who are now chemistry teachers, chemical engineers, chemists, and pharmacists.”

The learning process

“I am not an IT-oriented teacher,” Madam Lim confessed. “My strength in teaching is probably that I can get a lot of student engagement in my classroom through cooperative learning group sessions.” This she does by creating an environment that encourages students to question or debate with each other during presentations. By doing so, she gets students to focus while others are presenting to encourage them to think critically of others’ point of view, and not blindly accept what has been presented. Lessons are interactive trying to link the learnings to real world situations. Humor is injected to lighten up the subject.

For Madam Lim, there is no end to the learning process. Even after about 30 years of teaching, she feels she is still learning from others especially from her colleagues.

“The world is changing,” she says. “What appeared to be true 20 years ago is no longer necessarily applicable today. Plenty of new theories started to bloom, hence, we cannot stay stagnant. From time to time, I must keep myself updated with the latest development especially in

terms of teaching pedagogies and on the subject matter that I must teach. The professional development of teachers is highly essential for them to keep up to date with developments. It is through our own initiatives, through informal discussion with colleagues, by attending seminars and workshops that we find ways and means to upgrade ourselves.”

“How do I measure my success as a teacher? I think being able to get students to look forward to my class and to enjoy my sessions is already a measure of success. Being able to conduct a productive lesson where students have learnt and made progress is also success. More importantly, my ability to make a huge impact on students’ life and make a difference in them is success. Recognition is good especially when they receive their degrees. I guess all these are the greatest teaching moments that I had as a teacher.”

THE EDUCATION SYSTEM IN BRUNEI DARUSSALAM

Brunei Darussalam, the smallest nation in ASEAN, is situated on the north coast of Borneo island along the South China Sea encircled by the state of Sarawak, Malaysia.

Education is managed by the Ministry of Education which was restructured in 1974. All government and private learning institutions are supervised by the Ministry of Education in compliance with the Education Act of 1984. All primary and secondary learning institutions follow a common syllabus that has been set by the Ministry.

All citizens are entitled to free schooling at all levels of education.

Currently *dwibahasa* - bilingualism, using both Malay and English, is practiced. Because of the country’s small population, most of the teachers have for a long time been emigrants from Britain, Australia, or neighboring countries in Asia. As per the Education Act all private school teachers are required to register with the Ministry. Due to the country’s Islamic heritage and government by a monarchy, Brunei’s formal educational philosophy lays emphasis on Koranic components such as piety and faith, together with allegiance to the Sultan. At the same time, its past dependence on Britain has led to educational curricula and structures that draw from Britain’s educational system.

Education for children in the country begins at the age of 5. Children attend pre-school for one year. This foundation is meant to emphasize the personality and socio-emotional development and to prepare the pupils for primary education.

Primary Education in Brunei Darussalam

Primary education takes a total of six years to complete. Learners go through a 3-year lower primary phase (year 1 to year 3) and a 3-year upper primary phase (year 4 to year 6). At the end of year 6, learners are required to take the Primary School Assessment or *Penilaian Sekolah Rendah* (PSR). This assesses the students' suitability for secondary education and places them in the suitable secondary school course that will correspond their learning pace, inclination, and ability. All learners who get five A's in their PSR are normally channeled to science learning institutions.

Two plans are being adopted for learners with special educational needs. These are the Individualized Education plan (IEP) and the Remedial Education Plan (REP). These plans will be able to alter and/or accommodate the syllabus based on the needs and the ability of such students.

IEP is structured for learners who have been recognized with a high support of learning needs. Alterations in the syllabus and changes in the learning and teaching tactics are required to cater to the learners according to the nature of their personal special needs. REP, on the other hand, is mainly for learners who have learning troubles particularly in basic skills such as mathematics, reading and writing.

Secondary Education in Brunei Darussalam

There are four programs that are structured to match learning interests and capabilities at this level. Learners go through four or five years of secondary education and they all follow a common syllabus for the first two years that is year 7 and year 8.

The four programs to choose from are:

- **General Secondary Education Program**

For learners who are inclined towards academic subjects. Most of the learners will be in the 5-year program and will sit for their Brunei Cambridge Certificate of Education Ordinary Level (BC GCE 'O' Level) at the end of year 11. Some selected learners who perform well in year 8 can be enrolled in the 4-year program thus sitting for their BCGCE 'O' Level at the end of year 10.

- **Applied Secondary Education Program**

For learners who are inclined towards vocational learning. This is a more project-based and hands-on approach to learning. At the end of the program, the learners are expected to obtain a wide introduction to the vocational sector. This enables learners to develop individual skills that will prepare them for the job life in the vocational sector. These attributes and skills together with key and basic skills enable the students to meet the qualification that forms the foundation for successful learning in Higher Education. Under this program, the Special Applied Program (SAP) is offered at year 9.

- **Specialized Education Program**

A 5-year program for the skilled and gifted understudies who by the merit of exceptional capabilities can perform exceptionally well in specific or general ability areas. The syllabus structured for the skilled and talented learners concentrates on separating the content, procedure, product and/or the learning environment with more depth and breadth of the subject matter. There are opportunities for acceleration, extension, and enrichment, or the suitable blend of these approaches within the distinguished syllabus. These are usually determined by evaluating the different strengths and learning needs of the students.

- **Special Educational Needs Program**

A continuation of the Individualized Education Plan (IEP) in primary schools. One of these programs that has been adopted in secondary schools is the Pre-Vocational Program. This five-year program is designed to cater for the needs of identified/selected learners with special learning needs at the secondary level. The objective of the program is to develop the students' living, social, and academic skills and to instill work and vocational expertise via suitable work placements.

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2

Diversified Learning

Dy Sophorn

Cambodia



“Learning is the process of acquiring new understanding and knowledge through the five senses...coupled with ‘thinking with creation’.”

The 1990s was just more than decade after the fall of the disastrous Khmer Rouge regime which had plunged the country back to a darker time when the cities were emptied of people who were send off to work in collectives in the countryside. Professionals, including teachers, and others with education were rounded up and killed. At the end of a short five-year reign, a third of the population were killed by the murderous regime. This was the milieu that Mrs. Dy Sophorn grew up in where being a teacher was to be hopeful for the future.

Teacher Sophorn was born to a family of farmers though her father worked at Department of Art and Culture, and spent time teaching the young monks in the Pagoda. “As a family, we liked to study,” she proclaimed. “At home, my parents especially my father, spent time to teach me every night, so I knew lesson before going to school. With that understanding of the lessons, I could explain these to my classmates. The feeling of teaching was always in my heart. I wanted to help, to transfer what I knew to others, especially people who were illiterate. I wanted to help my country, so I decided to become a teacher when I was still very young.”

Teacher Sophorn I liked to play the role of the teacher as a child. She would teach her friends in the village. When she reached High School, she would volunteer to teach other students in the lower grades coming from the countryside. It was then that old people around her started referring to her Krou Tauch (Small Teacher).

Upon graduating from High School, Teacher Sophorn took the examination for entry into a two-year course at the Teacher Training

School in Kampong Chhnang. There, she took up General subjects with a main emphasis on Psychology and Pedagogy. In 1996, she received her Certificate of Primary Pedagogy that would allow her to teach in the public school system.

Teacher Sophorn's siblings also became teachers. Her sister is a Mathematics teacher, her brother a Psychology teacher at the Teacher Training School.

Preparing for class

The school year in Cambodia runs from November to August of each year. Each school week is from Monday through Saturday starting as early as 7:00 in the morning to 4:30 in the afternoon. Schools take a mid-day break from 11:00 to 2:00 when students go home for lunch.

Teacher Sophorn teaches Grade 6 students at the Kumrou Krong Primary School in Kampong Chhnang Province in south-central Cambodia near the Togle Sap Lake, a large freshwater lake that drains into the great Mekong River through the Togle Sap River. As a primary school teacher, she thinks of how she can make her classroom as festive and dynamic to get her kids excited about learning. She decorates the classroom to be attractive and comfortable filling it with posters, wall charts, and art.

To prepare for the school year, the teachers of Kumrou Krong Primary School meet in grade levels to study the curriculum and make plans for the year. As a group and individually, they update old lessons plans and prepare teaching notes. Teacher Sophorn prepares information about her incoming students, their background and that of their parents. To communicate with parents, she uses Facebook and Telegram, forming them into a chat group.

Lessons are prepared by week. These are further crafted into daily lesson plans, each of which revolve around some main point in the syllabus. "I will vary lessons if my children have difficulty learning a

lesson,” says Teacher Sophorn. “It’s important that they all get the main points of the lesson and that no child is left behind.”

To ensure this, she prepares each lesson in advance to understand well the teaching objectives and what she would want students to learn from her class. At the primary level, teachers make a lot of their own teaching materials. A creative personality, Teacher Sophorn plans out how her crowded classroom for sixty students will be arranged to provide enough space for young active learners. “I think about the place of study,” she says thoughtfully, “and about the methodology to keep them engaged in learning.” This she does with a variety of devices and teaching strategies including games, role-playing and puzzles.

Since she started as a classroom teacher two decades ago, she has developed her own teaching methodology which she shares with other teachers. In the fourth week of every month, she engages other teachers in model teaching in her school, a program now supported by the Ministry of Education, Youth and Sports (MEYS) and now spreading to non-government schools run by NGOs in other provinces in the country. One of these programs was a teaching video prepared in response to the Covid-19 crisis. This program shows other teachers, especially those in rural area, what to look for and follow as new techniques requiring distance learning, social distancing, and other precautionary measures to ensure the safety of school children. “In the process,” she explained, “we hope to change old mindsets and set aside old teaching methods and styles.”



New methods also involve the way of making of teaching materials and how these can be used. Teacher Sophorn takes time to write down her ideas and experiences into books that other teachers might find useful. One such book was “Teaching Patterns in Four Subjects” – Khmer, Mathematics, Social Study and Science. Because her experience as a leading teacher, she has become a resource person and speaker throughout the country.

What is learning?

For Teacher Sophorn, Learning is the process of acquiring new understanding and knowledge through the five senses of seeing, hearing, smelling, tasting, and touching, coupled with “thinking with creation”.

“When a child is learning something, anything,” she says, “we can see it in their eyes as they follow the teacher. We can sense it in their activity: How they would ask questions. How they raise their hand before they speak. Are they paying attention when studying?”

Providing enough study material is a real constraint given the large class sizes in Cambodian schools. Do they have enough study materials to join the class in the various planned activities?

When children do not appear to be learning, Teacher Sophorn thinks deeply about her teaching style and the feelings that students might have towards the subject. “I try some strategies to reach these children,” she says. “For those who are scared or intimidated by the lessons, I use friendly communication to ease them of their anxiety. Sometimes, I become a close friend they can talk to, to discuss things with, and to seek help.”

There are times, however, when she acknowledges that the teacher is the problem. When teachers do not innovate, teaching becomes mechanical and students get bored with the old style of teaching. “Teachers should be constantly changing teaching their teaching methods to make classes happy and attractive to learning,” she says. Students are given tasks and homework that are suitable to their abilities so that they

can feel a sense of accomplishment when tasks are done. This sense of fulfilment and closure is an important part of the learning process.

Learning must be measured. To do this, Teacher Sophorn tests students directly by asking questions of each lesson and getting them to write before moving on to new lesson. Each month, there is a Monthly Test; each semester, a Semestral Exam. At the end of the academic year, there is a Final Exam.

In the Cambodian education system, there is the Outstanding Student Awards at the High School level where students compete with other students in the same grade level from their school and other schools across the country. Some of the brighter students go on to compete in international students' academic competitions. For a Primary School like Kumrou Krong Primary, students start from Grade 4 to Grade 6 to compete with other students in the same grade level for medals and awards.

“My greatest satisfaction in teaching is when students grow up with knowledge and good morality,” she smiles. “That’s when I know they have a chance at a good job in future with living comfortably and with peace in society. A teacher will care for her students until they have good jobs.”

In her two decades as a teacher, Teacher Sophorn has garnered her share of awards. Besides the recognition of her community for her students' success, she has also received national awards from the highest office in the land, from the Ministry of Education, Youth and Sports and from the Prime Minister of Cambodia, Samdech Hun Sen.

She is regarded as a National Trainer traveling around the country to do teacher workshops. She has written a book on her experiences as a teacher and has begun to prepare teaching videos suitable in this time of pandemic. To expand what she knows, she has started taking a Master of Education degree at the Bright Hope Institute in her city of Kampong Chhnang.

Dealing with an overcrowded classroom with a large number of students has its own challenges. “There are 60 students in my class,” she

pointed out. “My students are come from different home and community situations, living standards, knowledge, attitudes, and habits. So, with these, I have difficulty preparing lessons and learning activities to educate them. At the end of the year, they can pass 100 percent, but they acquire different levels of knowledge and ethics.”

Dropping out of school is not uncommon in Cambodia. The challenge in such a setting is to encourage parents to keep children in school until completion of some cycle. “The reason I want to do this is because I want them to be brave, to struggle and to succeed, to try and collaborate, and to be united in love for each other.”

As a teacher, Teacher Sophorn is conscious of her standards finding ways to improve on lacking points in teaching and to correct these. “I try to be strict with my teaching,” she expressed. “I prepare my tasks so that I am ready before each class.” Lesson plans, methodology, study materials, games and classroom learning space are things she prepares for beforehand. In each lesson, she prepares questions from easy to difficult to answer, using flexibility in her teaching with words of encouragement to motivate her students. “I look for ways to make a classroom a happy one,” she says.

Her school

Kumrou Krong Primary School is in the middle of Kampong Chhnang City near the Independence Monument. It is a school known for its teaching excellence. Over the years, seven of its teachers have received the Good Teacher Award for the Country. Teacher Sophorn is one of the seven.

The school has an enrolment of 2364 students of which 1236 are girls (52.3%). The school, classified as a large urban school, has 55 classrooms and 72 teachers (42 of whom are female).

Students come from a mixed community, mostly urban with a small minority living in more rural areas. To show the diversity of home situations, she points out certain students. One boy, Chhin, lives 12

kilometers from the school. Another student, Huoy Ling, a girl, lives over 20 kilometers away. A third child, Keang Huor, a boy, lives over 10 kilometers from school and his home can only be reached by machine boat. Every day, children go to and from school by walking, biking, being driven by motor bike, or by boat. A few of them stay with relatives near the school.

Teacher Sophorn's school is run by the government. As a public school, it caters to the common folk. The parents of students work in a wide range of professions and trades. Some parents are officers in the army, others are civil servants, sellers and businesspeople, construction and factory workers, and many are farmers and farm workers. Some are better off than others but as in most of Cambodia, most are of the low-income class.

Khmer, the mother tongue language, is the medium of instruction throughout Cambodia. English is not widely used but is taught as a language starting in Grade 4. The Khmer Language is used as the medium of instruction.

Cambodia is a homogenous country, for the most part, being Khmer. Teacher Sophorn's class of 60 students does have four migrant children from other parts of Cambodia. There are no minority group children in her school and only two children in the younger grades that are children with disabilities (CWD). Many of the latter children still do not attend school in Cambodia and are hidden at home by parents.



Typical of the Cambodian curriculum is a distinctly Khmer culture. Four attributes are contained in this education culture:

- Learning to have knowledge and life–skills for society
- Living in Peace
- A caring Culture
- Excellence

Teacher Sophorn teaches in Grade 6, the last year of Primary School. Of the 60 students in her class, 24 of them girls (40%). The large class size is a constraint to good learning. What compounds this situation further is that slow learners are mixed in with fast learners. She learned to cope with this reality by diversifying her teaching to address different groups of students in her class. This diversified approach to learning addresses each child at their level of learning to bring each to their highest potential.

Primary Schooling in the country runs for six grades. For Grade 1, students enter school at 6 years of age. By Grade 6, they may range from 11 to 15 years old. Primary School teachers teach four General Subjects such as Khmer Literature, Mathematics, Social Studies, and Science. In recent years, a new subject – English – was added to the curriculum. Teacher Sophorn handles the four General Subjects and English for her class.



Education Reform in Cambodia: Progress and Challenges in Basic Education

Mr. SEM Ren and Mr. HEM Kosal

Interns from Senate, Cambodia
Parliamentary Institute of Cambodia
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I. Introduction

Cambodia aspires to reach the status of an upper-middle-income country by 2030 and a high income country by 2050.¹ Consequently, the Royal Government is focusing on human resource development to ensure competitiveness in an increasingly open regional labor market² among the ASEAN countries. Since 1979, the education system in Cambodia can be divided into three stages³: from 1979-1987 general education covered 10 years (4+3+3); from 1987-1994 it was 11 years (5+3+3); and from 1994 to now general education has covered 12 years (6+3+3).

In recent times, education in Cambodia has made significant progress. But schools in remote areas still lack teachers and this has led to an education system of generally poor quality⁴ in that while many students do not join classes, classes are nevertheless over-crowded. For this reason, students are deterred from studying, they do not acquire knowledge, and many drop out of school at a young age.

Another issue in Cambodia is literacy among its labor force. The Cambodia Economic Survey 2010 revealed that about 18 percent of the labor force (aged 15-64) were either illiterate or had only basic literacy skills, while 35 percent had not completed primary education.⁵

A further challenge is that, according to the World Bank (2005), teachers' pay has, traditionally, been very low, leaving teachers unable to support their families without taking a second job to increase their income. Teachers in Cambodia at that stage earned only USD 35-40 per month in primary schools and USD 60 in upper secondary schools, while it was estimated that a teacher needed a minimum salary of USD 150 to support a typical Cambodian family with five members.⁶ Thus, when the salary is below the sum needed, teachers need to take on other work and consequently have insufficient time to plan lessons or to correct students' homework.

However, in 2015, the Ministry of Education Youth and Sport (MoEYS) decided to increase the teacher's salary to USD 124.46 per month for primary school teachers and USD 186.62 for lower secondary teachers. This salary will subsequently be raised to USD 250 per month in accordance with MoEYS' promise of a further 20 percent increase.⁷

The education system does not yet provide learning for children and youths that is sufficient in terms of quality and relevance.⁸ This is because some schools lack teachers, there are too many students per class, and there are insufficient materials, core textbooks and library resources. Furthermore, some teachers are absent during the harvest season, some schools are located far from the villages, children are often needed to join the workforce at a young age, the school drop-out rate is high, and school principals often have few leadership and finance management skills, a limited education background, and have, for example, never attended a management training course.

Given the needs of 'out-of-the-way' schools, the (still) low pay of teachers and the insufficient supply of core textbooks and learning materials, the basic requirements needed by schools in order to improve education quality are still not in place. Therefore, MoEYS has been undertaking some profound reforms, particularly during the past three years.

To address the problems outlined above MoEYS set four education strategy plans from 2000 until 2018.⁹ First, the education strategy plan for 2000–2005 focused on enrolment in primary school by: (1) starting to cancel enrolment payments; (2) providing school funding using a formula that gave particular support to rural schools in poor areas; and (3) building primary schools across the whole country. Second, the education strategy plan for 2006–2010 shifted the focus to improving education in secondary schools by :1. building lower secondary schools in all communes and secondary schools in all districts; and 2.giving scholarships to poor students to enable them to complete grade 9.Third, the education strategy plan for 2009–2013 put a focus on improving internal efficiency by:1.Reducing repetition and drop-out rates ;and 2. Strengthening institutions for decentralization. Fourth, the education strategy plan for 2014–2018 focused on: (1) equality and the quality of education; (2) the response of education to the needs of the economy; and (3) effective management of MoEYS staff.

Figures achieved during the first year of reform in 2014 showed the pass rate for grade 12 students increased by 25.7 percent. The second reform in 2015 achieved a pass rate at grade 12 that was up by 55.8 percent. And, following the third reform in 2016, the pass rate for the same grade grew by 62 percent.¹⁰ As a result, in 2014, only 11 students earned a grade A, in 2015 that figure was 108, and in 2016 it had risen to 405.¹¹

V. Conclusion

There are four key areas in basic education in Cambodia where progress is needed: student enrolment; student drop-out; student grade repetition; and the relationship between teachers and students.

In 2015-2016, the number of students enrolled in primary school in the whole country decreased by 180,519 compared with 2010-2011. The number of students in lower secondary school was 558,464 in total, of which girls accounted for 285,399. This number was less than the school year 2010-2011 by 2,404.

The number of students enrolling decreased in 2015-2016. The student drop-out rate at primary level is still at its highest percentage. In lower secondary schools, the dropout rate was 19.2 percent, while in 2014-2015 it was 21 percent and in primary education it was 6.2 percent of student dropout and 7.2 percent for girls. In the school year 2014-2015 it was 8.3 percent of student dropout and 7.2 percent for girls.

The reasons why students drop out revolve primarily around the need to generate income – this accounts for 34 percent – while family impoverishment accounts for the lowest rate of 9 percent. The need to undertake chores and low educational performance are other reasons.

In 2015-2016, in primary schools, the number of students in the whole country who repeated a grade was 135,678, a reduction of 22,609 over the 2010-2011 figure of 158,287. In lower secondary school, in 2015-2016 there were 12,262 students in the whole country who repeated a grade. This was an increase of 444 compared with the school year 2010-2011, when the figure was only 11,818.

The relationships between students and their teachers are important influences on the quality of education. The shortage of teachers in rural and remote areas has been addressed by the transfer of non-teaching staff into teaching, the relocation of teachers into areas of high need, and by allowances given for hardship postings. But the top issue is still low teachers' pay.

Almost all secondary school teachers have completed at least grade 12, and have generally taught at only three schools throughout their professional career. But they do not have enough time to create lesson plans or correct students' homework. The number of primary school teachers has decreased over a 12-year period. The number of teachers is insufficient, and the number of newly trained teachers does not correspond to the actual needs at school level, especially given the heavy requirements of disadvantaged areas and rural schools where the standard of living of education staff has not risen.

As a result of low salaries, teachers often must take second jobs as taxi drivers, farmers, and sellers to supplement their income. The schools' poor infrastructure, insufficient space, lack of internet access and limited postal services, along with the low capacity of school principals, libraries with inadequate furniture and too few reading books, a lack of school health programs and poor administrative letter management are still in need of attention. School sizes, and their locations relative to the population, as well as the high number of students per school, are further issues.

Learning programs are not very attractive for potential beneficiaries and some schools and classes are not able to finish the curriculum; the allocation of learning hours for some subjects does not match the allocation in the curriculum. Technical officials in charge of curriculum development have not addressed the requirements of potential students, and the numbers of students per class are among other challenges in education reform.

Meanwhile, libraries in most schools operate only one shift and do not meet the required standards, and supplementary reading materials to promote reading at school are insufficient. The lack of teaching materials in all schools limits the quality of education: three to five students often share one copy of the textbook. Parental attitudes, poverty and logistical issues are further challenges. The education budget is still inadequate because schools need to increase teacher salaries, add more books, buildings, restrooms, tables, and chairs. MoEYS also needs to give schools more flexibility to meet local demands: for example, one school requesting toilets had to wait three years – and even then, the money came from private donors.

To improve the quality of education in both primary and secondary schools, the government could increase salaries and provide other benefits such as more training in relevant skills. To recruit more teachers, the government could encourage A, B and C level students to become teachers automatically. More textbooks and information sources could be available in libraries, and the numbers of students per school and class could be reduced. Teachers should be discouraged from acquiring money from students for giving them extra classes. Overall, the government could consider increasing the education fund further to make sure that MoEYS can fully meet the country's education needs.

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3

Learning with Media

Encon Rahman

Indonesia



*“Learning is an activity that is
done with a purpose.”*

Telling a story requires imagination. But imagination needs to be developed and shaped so that stories have coherence, meaning and consistency. This is the way Pak Encon Rahman, a teacher in West Java, Indonesia teaches young students in his primary school up in the mountains. This he does using drawings and asking students to use illustrations and pictures to tell stories around which they learn concepts, vocabulary, and subject matter.

The Mekarwangi I Elementary School of Pak Encon is in Argapura District, Majalengka Regency in West Java Province of Indonesia on the island of Java. It is school some 200+ kilometers south east of Jakarta or 2.5 hours by car. Pak Encon’s school is at the base of Mount Ciremai. It is a public school about 20 kilometers away from the city center. “Ten years ago, my school was a remote village,” says Pak Encon. “Today, it is no longer a remote village, but it is still surrounded by rice paddies and gardens. The atmosphere is beautiful, and the air is sweet and clean. My school is far from pollution.”

Argapura District is a farming community. Parents are farmers or farm laborers. Students walk to school each morning living, for the most part, within half a kilometer from the school.

As in all schools in Indonesia, the national language, Bahasa Indonesia, is the main language of instruction with the regional language of Sundanese used as a mother tongue language.

As in all parts of Java, Majalengka Regency has its own unique history and distinct style of *batik*. Batik is the national wear of Indonesia. The cloth used is colored through a technique of wax-resistant dyeing applied to a piece of whole cloth before it is sewn into a suit or shirt, whether long-sleeve (more formal) or short-sleeve. This technique of batik dyeing originated in Java with distinct patterns and designs vary

from regency to regency, each with a dominant style. Batik is made by drawing dots and lines with molten wax. The wax forms what is called the resist. This is the portion of the cloth that is to be left undyed. The designs are made using different tools, either a spouted tool called a *tjanting* or by printing the resist with a copper stamp called a *cut* to make the design. After dying in two or more colors, what is left are vibrant designs that can be geometric, figurative, or abstract. The Majalengka batik is known by its rich bright, light colors and free-flowing designs.

Another artistic feature of this unique culture are the shadow puppets of Java. *Wayang* is a traditional form of puppet theater wherein a dramatic story is told through shadows thrown onto a light cloth screen in front of the puppeteer which hides him from the audience. This artform can be traced to the spread of Hinduism in the medieval period and originated from the leather-based puppet arts from India. *Wayang* has been declared an intangible cultural heritage by UNESCO.

This is the cultural milieu of Pak Rahman and might explain the ease in which he brings different forms of media into his classroom as subject matter content, forms of expression, and craft.

What is learning?

As a generalist teacher in Grade 4, Pak Encon teaches all eight subjects in the Indonesian curriculum (religious education, national philosophy and civics, Indonesian language, mathematics, science, social science, arts, and physical education). He applies different pedagogies in his classroom of students. His learning model varies from week to week. With his Grade 4 students he uses problem-solving for mathematics and science, brainstorming and discussion for language, question and answer, games, and inquiry for all subjects. One thing that is common to all the subjects in his class is his use of media and different teaching aids.

“Learning is an activity that is done with a purpose,” says Pak Encon. “It is designed with reference to established educational goals so that desired behavior and change among students occurs.”

How do you know when a student is learning something? As a teacher, Pak Encon engages his students in a constant stream of learning activities. Each activity has a learning purpose and design. Each activity has an output that can be evaluated against a set of rubrics. For example, in science, a specific topic includes a discussion about the subject matter being studied, what is it, what is known about it, what theories or explanations are there to explain any phenomenon about the science, and what has been the history around what is known of the topic. To make the topic real, students then undertake some activity around the topic: an experiment or a construction or a story board to explain what is being studied. These activities drive home what is taken up in a cognitive manner with some activity – an experiment or demonstration – done in the classroom. In this way, science comes alive for young children.

When his students have difficulty following a particular lesson, Pak Encon aside for a chat. He advises them of the best way they might proceed to learn the lesson. He encourages play among his students so that they build a rapport amongst themselves to help each other out. “Sometimes,” he says, “it is just a matter of a lack of confidence on their part. I try to help them grow self-confident so that they can do the work by themselves. As a class and in smaller groups, we do brainstorming – how to generate ideas and organize them and present them to each other. We do questions and answer and have fun doing so. These can be about the condition of their families and the daily activities of students while at home.”

The use of media as a learning tool

In his show-and-share session with teachers, Pak Encon showed how media can be used in the classroom. “There are many ways to use media as a learning device for students,” he explained to the crowded hall. “In a classroom, you can use games, puzzles, activities where students create their own stories. A teacher should tap into the imagination of students to make learning becomes fun in the classroom.”

But learning now happens anywhere and everywhere and there is a whole new space in the media world (newspapers, magazines, and print media) as well as in social media where learning can happen if teachers know how to tap into this and manage it well. There are online tools in social media for this. More and more teachers and schools are learning to connect with students and parents using such channels as Facebook Messenger and the like. These platforms allow for the possibility of expanding learning spaces but must be managed well because there are also risks to children's safety as well.

In his classroom, Pak Encon tries to create an environment where every student feels comfortable. "I ask them all to share something that will make them all laugh," he says. "I send notes to remind them about the instructions of important assignments, as well as the submission deadlines. I encourage them write down their stories, experiences, and learnings. And I give them extra points for this."

Every week he sets aside time for a discussion of topics. "I ask students to think of a topic close to them that is related to the lesson. I invite every student to participate in the discussion. To get them to participate, I ask questions in a relaxed manner so that they are not stressed. I encourage them to ask any question they have."

When students are unsure how to answer or do not know how to handle an assignment, he explains the process to help them deal with the difficulties they face. Whenever necessary, he helps students search for new online resources that make learning fun.

Writing and drawing is one way of helping students learn. This is an area Pak Encon has a lot of experience in having written over 500 short stories, articles and poems in local and national newspapers and magazines. "I start by getting students to write short descriptions of things," he says. "This trains them to be aware of what they see or sense or feel. I then get them to think of how these might be seen by other people. And maybe there is a story to connect what they observe with what others see. This is the beginning of news reporting."

How can a teacher use news reporting as a tool for homework assignment? "I ask students to report on something happening in a news way.

You start by asking the W questions: Who, What, Where, When, Why and How. What did they discover about the event? How can they write it to inform others? This requires observation and logical thinking. How did the event happen? What was the timeline? How did it end?"

In other assignments, he gets students to read a book and do a book report. In this way, they must be careful about what they read and report on it accurately and with insight. Individual student work is filed away by Pak Encon for future reference. "It is always nice to be able to see my students' work at the end of the school year. It gives me a sense of achievement."

Pak Encon's teaching style is active learning where a child is constantly challenged to be doing something with a learning purpose. This is akin to a "flipped" classroom concept where, instead of a teacher lecturing, students are learning through their activity. This is student-centered or student-driven learning. "I may give instructions," says Pak Encon, "but my primary role is to let students do the work and teach themselves and each other. I will step in to give guidance when needed and then to give closure to the lesson."

This requires a lot more work on the part of a teacher in terms of preparation and assessment. But the output and the outcome are worth it judging by the portfolios of student work Pak Encon has gathered by the end of the term.

Communication, collaboration, creativity

The use different types of media materials are a good way of teaching creativity, collaboration, and communication – three of the 21st century skills. Teachers can blend these with the traditional subjects of the mandated curriculum to create learning that can be expansive. Language can be enhanced by visual arts, performance, dance, and creative writing. Science and math can be made exciting by doing experiments, constructing things, growing plants.

Common to all that is done in Pak Encon's class is drawing, writing, storytelling, role-playing. He encourages students to document what they are doing either as a report or a story using observation, analysis, logic, and presentation. "It is not only good to study things," he says. "It is better to be able to explain what you learn to others. In this way, you internalize what you learn."

This improves literacy, communication, and reading skills all of which are essential for life-long learning. When students get bored of reading and writing, different forms of media including that from the internet and social media can provide plenty of online information students find more interesting to read, especially if these include animation. Online activities and content can contribute to a child's general learning with some studies showing that children can develop stronger reading habits leading to drastic improvements in their overall learning and in their writing ability.

There are many tasks that teachers can ask students to do with the use of different media in the classroom. For example, they can ask students to do some of the following:

- Artistically decorate a thing on their own.
- Think of a word and make a 4-line poem. The last word will be the first word of another 4-line poem by another student in the class, and so on until no more poems can be made or written.
- Create a group painting where every member adds one object or element to complete the painting.
- Make a toy or a tool for a game or activity.
- Make a fairy tale where the main character is a combination of a favorite character from other fairy tales. Explain the combination.
- Make a word game rhyming words that answer to questions.
- Make a collage of words and pictures around certain themes.
- Write different endings to the same story – a happy one, a sad one, an unfortunate one.

Games are another fun way of learning. Here, games can be grouped into different types, kinds and learning purposes. There are games that can promote Health (i.e. active games, farming games, kinesthetic games, games using manipulatives) or Language and communication (i.e. reading, puppets, cartooning).

Other games can be more subject-oriented such as Math (STEM, logic, self-correcting, imagination, brain-bending, puzzles, math tools, drafting), Science (STEM, logic, the microscope, optics, scales, animals, physics sets, magnets), Technology and Innovation (building blocks, construction sets, engineering sets, technology kits, logic games), or Social science (art, maps, picture games, explore the world).

Art and music are another area where media can be widely used (i.e. painting, drawing, music, costumes, modeling clay, coloring pens).



Preparing for class

Before the start of every school year, teachers are given the national curriculum as a guide to planning. This provides them with a syllabus for the grade they are to teach. Teachers in the primary grades in Indonesia are generalist teachers handling all 8 subjects in their grade. Each teacher compiles a work program for one year called a learning implementation plan (RPP). This is further divided into daily lesson plans each with its own set of teaching activities and learning activities.

“In the evening before every class,” explains Pak Encon, “I prepare the lesson plan, the readings, my instructional materials. I review the learning objectives and make sure these are aligned with the RPP for Grade 4. In the morning, when I arrive in school, I greet the students and get them settled in.” The first 15 minutes of the day is devoted to reading books in the classroom. This is to develop a reading habit. After that, they begin to study according to a predetermined learning schedule.

Each day and school week has a sequence of teaching and learning activities to build learning habits. These habits and practices include activities such as praying, reading books, singing the national anthem (“*Indonesia Raya*”), reviewing the previous material and linking the material to be taught, core activities (studying material according to the learning activity schedule) end (conclusion, evaluation and follow-up).

As a teacher, the measure of success for Pak Encon is when his students produce good work individually or as a group. “I feel motivated and fulfilled when I see good work done by them,” he says with pride. This is particularly true when his students were able to enter competitions held by the education office at the sub-district, district, provincial or national level. Several his students have won in these competitions.

On being a teacher

Pak Encon had always wanted to be a teacher since he was a child in elementary school. A religious man, his role models are his parents, the Prophet Muhamad SAW¹ and Aa Gym (Abdullah Gymnastiar), a Muslim cleric who is a newly appointed Minister of Marine and Fisheries in Indonesia.

After graduating from high school, he enrolled in the Faculty of Teacher and Education Science at the University of Pasundan in Bandung graduating with a Bachelors degree in 2002.

Since 2018, Pak Encon has been a national trainer of teachers with the Ministry of Education.

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1 *Sallallahu Aleyhe Wassalam*, the phrase invoked after the Prophet's name meaning "God bless him and his family and grant him peace".

EDUCATION IN INDONESIA

March 21, 2019

By Dragana Borenovic Dilas, Christopher Mackie, Ying Huang, and Stefan Trines

Indonesia, home to 264 million people (2017, World Bank), is the fourth most populous country in the world. It is also the largest archipelago on the globe. Its territory spans more than 17,000 islands that stretch for 3,181 miles along the equator between the Pacific and Indian Oceans.

About 87 percent of Indonesia's population is Sunni Muslim, making Indonesia the largest majority Muslim country in the world. But the Southeast Asian country is simultaneously a diverse, complex, and multicultural nation of more than 300 ethnic groups that speak hundreds of different languages. Some 10 percent of the population identify as Christians and about 1.7 percent as Hindus.

Indonesia's three largest ethnic groups are the Javanese (40.1 percent), primarily located on Java, the world's most populated island and home to more than 50 percent of the total Indonesian population; the Sundanese (15.5 percent); and the Malays (3.7 percent). Indonesia's cultural and regional diversity is as vast as the number of its islands. Areas like rural West Timor or Indonesian Borneo (Kalimantan) are worlds apart from the flashy shopping malls of downtown Jakarta, Indonesia's capital city of about 10 million people.

Despite these marked differences, Indonesia is viewed as having a promising economic future; it is bound to become a country of global importance in the 21st century. The island nation is currently transitioning from an agricultural economy driven by commodity exports to an economy based on industrial manufacturing and services. The professional services firm PricewaterhouseCoopers projects that Indonesia will grow into the world's fourth-largest economy by 2050. This astonishing economic rise is partially based on demographic trends that will increase the country's population to about 321 million. It is estimated that 70 percent of the population will be working-age adults by 2030, a circumstance that will supply the nation with a beneficial demographic structure and a voluminous labor pool.

Underscoring Indonesia's tremendous economic potential, the country's middle class is expected to double between 2013 and 2020. Meanwhile, urbanization is accelerating rapidly, and internet penetration rates have increased by more than 20 percent between 2013 and 2016 alone. The percentage of people who have access to electricity has jumped from 55 percent in 1993 to 98 percent in 2016. Recent economic growth rates have been relatively low compared with growth rates before the 1997 Asian financial crisis, but GDP has nevertheless increased steadily by more than 5 percent for most of the past eight years.

However, Indonesia is characterized not only by deep regional disparities, but also by its status as a developing country that is difficult to govern and that remains marred by various socioeconomic problems. It ranks 116th out of 189 on the UN's Human Development Index, and its GDP per capita is less than half that of neighboring Malaysia. Twenty-seven million Indonesians still live on less than USD\$0.75 a day. Life expectancy is seven years lower than in Vietnam.

To live up to its full economic potential, Indonesia needs to increase public spending, build up its infrastructure and bridge regional development gaps, curb corruption, provide stable and predictable governance, and raise living standards by investing in health care, education, and human capital development. As the World Bank's Country Director for Indonesia Rodrigo A. Chaves has noted, the "middle class holds the key to unlocking the potential of Indonesia. It is important for the government to support the growth of this group in all fronts. This includes support to improve quality of education and skills of the population and promoting job-creating growth and ample access to social protection...."

Challenges in the Education System

As of now, Indonesia struggles to provide inclusive, high-quality education to its citizens. The country has much lower literacy levels than those of other Southeast Asian nations. An analysis by the World Bank showed that 55 percent of Indonesians who complete school are functionally illiterate compared with only 14 percent in Vietnam and 20 percent in member countries of the Organization for Economic Cooperation Development (OECD).

Tertiary attainment levels, likewise, are very low: The percentage of Indonesians over the age of 25 that had attained at least a bachelor's degree in 2016 was just under 9 percent, the lowest of all the member states of the Association of Southeast Asian Nations (ASEAN). There may not be much incentive to obtain a tertiary degree — unemployment rates are highest among university-educated Indonesians. The research output of Indonesian universities is growing rapidly, but it is still low compared with that of other emerging economies.

On the plus side, mean years of schooling among the population above the age of 25 have doubled since the 1980s to eight years in 2016. The pupil-to-teacher ratio has dropped from 20 to 1 to 16 to 1 in elementary education between 2004 and 2017, even though this ratio has remained flat if not decreased at higher levels of schooling (as per data from the UNESCO Institute of Statistics – UIS). The tertiary gross enrollment ratio (GER) leaped by 20 percent between 2004 and 2017, despite being still low overall. It now stands at 36.3 percent, compared with 28.3 percent in Vietnam, 42 percent in Malaysia, and 49.3 percent in Thailand (UIS).

Since the mid-2000s, Indonesia has implemented a broad range of education reforms, including the decentralization of parts of its school system, improvements in teacher training standards, and sizable increases in education spending (as a share of the national budget). However, public education spending as a percentage of GDP has stagnated over the past decade and remains well below recommended levels for emerging economies (at 3.6 percent of GDP in 2015). More substantial efforts will be required to overcome structural weaknesses in Indonesia's system and bring it up to the standards of other fast-developing countries in the dynamic ASEAN region.

<https://wenr.wes.org/2019/03/education-in-indonesia-2>



4

Learning Through Culture

Khounvilay Khenkitisack

Lao PDR



“Learning is receiving, knowing how to improve one’s self and how to solve problems consciously.”

“When I was young,” says Mrs. Khounvilay Khenkitisack, “my parents taught me how to work and help myself. They taught me how to be a disciplined person, honest to myself and others, how to love and be united with family members, relatives and society. I was taught to appreciate and help others without expecting anything in return.”

Mrs. Khounvilay was born in the village of Phanman, Sisattanak District in Vientiane Capital. She was raised there and continues to live there. Her current school where she is assigned is also in this district.

Her first expressed desire to be a teacher was in Primary 4, she recalled. “I had teachers who were very good, always wore proper dresses, and acted politely”, she said. “They were my role models. “

To train to be a teacher, Mrs. Khounvilay attended the Teacher Training School in Vang Vieng in Vientiane Province in 1975-1978. To enter such a training institute, one has to pass the entrance exam. After graduation, she was qualified to be a teacher in a public school and was assigned by the Ministry of Education and Sports Ministry of Education and Sports (MES) to Don Nokkhoum Primary School. There, she taught in the fifth grade. She was there for two years before being transferred to Sok Paluang Primary School which was nearer her home. While at the Teacher Training School, she took up Theories of Learning and Pedagogy, the psychology of children and their different behaviors, and how to respond to these as teachers.

In her own words, her early years were not very successful due to her lack of experience. “I did not have enough diverse skills,” she said, “and my teaching, at that time, was not very good. Students’ parents would ask that their children be transferred to other teachers with more

experience in teaching. It seemed to me that I had no value. Faced with such a problem, I endeavored to change telling myself. I told myself that if others could do so, so could I.”

Learning Through Culture

Mrs. Khounvilay is the school director of Thongkang Primary School, a K-5 elementary school in Sisattanak District in Vientianne City. It is a small school of 303 students and 7 teachers. 154 of the students are girls (50.82%) and 2 of them are indigenous people from the Hmong tribe. There are no known learning disabilities among the school's enrolled students although 5 are slow learners.

Though small in enrolment, Thongkang Primary School has gained a reputation as a leader-school in Lao culture and mother tongue education offering classes in Laotian. It is a pilot school for curriculum in Lao language and primary education offering a holistic education and generalist teaching.

Lao PDR, the only landlocked country in ASEAN has developed its culture and customs as the inland crossroads of trade and migration in Southeast Asia for over millennia. A small country of roughly 6.4 million in population, the country has an official count of over forty-seven ethnicities divided into 149 sub-groups and 80 different languages. Many of these are shared with the neighboring countries of northeast Thailand, Myanmar, Cambodia and Vietnam.

Much of the western borders of Lao PDR are formed by the Mekong River which provides the major means of inland trade despite limited navigability along the river's length. The river was used as a transportation artery to connect the Lao people on both the right and left banks. The history of Lao PDR is unique with a national character defined by its diversity of culture and customs.

About the school

According to the regulations of the Ministry of Education, Youth and Sports, if a school has an enrolment of less than 250 students, the school director has to teach a class like other teachers. If school has more than 250 students, the director is freed from teaching. Despite the Ministry of Education and Sports regulation, Mrs. Khounvilay takes on a class in Primary 5 handling the 7 subjects in accordance with the national curriculum. On top of teaching and administrative duties as a school director, she also selects and works with students in 3 fields – science and environment, Lao Language and Mathematics – to compete in the Sisattanak District Level competitions as the school representative. This competition is held annually.

The students of Thongkang Primary School are from different surrounding villages and districts. Though the school is in the Sisattanak District Municipality, teachers come from further away. Some come to school by motorcycle, others by car. Most students live walking distance from the school or are brought and fetched by parents.

The school is a government school and most of the parents work for the government. A few families are from low-incomes families who work various jobs and livelihoods to eke out a living. The Lao language is widely spoken at home.

Mrs. Khounvilay's class (Primary 5) has 51 students of which 27 are girls and 24 boys. At this grade level, there are 7 subjects which are integrated or taught by one teacher in accordance with the national teaching schedule issued by the Ministry of Education and Sports.

A typical school day for all teachers is around 9 hours on average. Teachers are expected to prepare lesson plans, deliver on these, and guide, mentor and assess student performance. For students who fall behind, teachers are expected to contact parents to jointly plan solutions. Regular parent-teacher meetings are scheduled four times a year when school plans and activities are shared with the school community.

Preparing for the year

To prepare to teach a specific subject, Mrs. Khounvilay first establishes a long-term plan for the entire school year in accordance with the national curriculum set by the Ministry of Education and Sports (MES). She is responsible for Primary 5 in these 7 subjects: Mathematics, Lao language, science and environment, music, fine arts, handicrafts, and physical education. In Lao language, students take up reading, vocabulary, hand-writing, dictation, and poetry.

From the course outline for the school year, a plan for each term is drawn up and broken down further into monthly, weekly and daily teaching plans. Each period, before teaching, she makes sure that the plans follow the text book, the teacher's manual and meets target objectives of the national curriculum. Appropriate materials are prepared accordingly.

What is learning?

According to Mrs. Khounvilay, “Learning is receiving, knowing how to improve one’s self and how to solve problems consciously, including using what you have learnt in daily lives in the surrounding society.”

How do students learn?

“Students learn by doing things,” says Mrs. Khounvilay. “We can assess this by observing their actual behaviours and the ways they express themselves, follow the school rules, and apply school theories to practice in their daily lives. These we can record and measure at different times in the school year.”

For her, Learning is the recognition that you can improve and accept other people’s feedback to develop one’s self in accordance with the social environment and daily life.

How do you know if children are learning, she was asked. “Most teachers, the more traditional ones, talk about measuring achievements by theoretical assessments,” she says. “Today, there are new methods of assessment: Observing student behaviors, practical activities, and seeing how these may change the way students live their lives in their communities.”

For her, Learning is the recognition that you can improve and accept other people’s feedback to develop one’s self in accordance with the social environment and daily life.

For students who are not learning, particularly younger ones, there might be a range of reasons: Family problems (inadequate income), parental problems (spouses do not understand each other or families are broken), family members do not help each other, the surrounding environment is not good, and the teacher’s teaching role do not motivate students adequately or at all.

“When faced with such a situation,” says Mrs. Khounvilay, “I try to get closer to the students, find out the problems and family situations, and interact with parents to try to find some solution the school can help out on. As for teaching and learning, we have to find creative activities that are fun and practical such as appropriate games for the particular lessons.”



Learning strategies

“The devices and/or innovations that I have developed and shared with others are creative thinking, using various colorful materials, games, story-telling and so on,” says Mrs. Khounvilay, to “get students excited about learning.”

Teaching techniques vary. Learning activities include singing, playing games, and sharing experiences. Colourful graphics and role-playing are ways to get students engaged in learning. Mrs. Khounvilay illustrated some of the lessons. “One lesson might be on fruits,” she said. “I will bring real fruits to class, use pictures of other fruits, play games about the names of fruits, sing songs about fruits, and let students talk about his or her favourite fruit.”

This can be applied to a range of other topics. To teach proper hygiene, students do brushing of teeth and washing of hands with soap and water. They are then encouraged to practice this regularly at home. The same goes for waste management and recycling, two topics practiced in school.

In Lao society, there are different reasons for poor student learning. These include broken homes, poverty, inappropriate environment, and even parents working abroad leaving children without a parent. Such factors can lead to a lack of motivation to learn.

As a teacher, the measure of success for Mrs. Khounvilay is when the students she has taught succeed in life participating as good citizens of the nation and living happily in society.

Every year, students in the Sixth Grade, students have to pass the primary level exams to move on to high school. Thongkang Primary School has developed a reputation as a leading school in this exam and in the Sisattanak District championship. The Sisattanak District Championship is about winning “The Annual Student Proficiency Test”. Every school in the district area sends students to compete in tests in 3 subjects – Lao Language, Mathematics, and Science and Environment.

Students from Thongkang Primary School have won in all these subjects. Other national awards have come in Performing Arts and Drawing.

Because of this, Mrs. Khounvilay has been chosen by the MES to be trainer for teachers and educational administrators nationwide and selected to be a committee member to revise “Lao Language and Mathematics” for Primary I-V levels.

BASIC EDUCATION IN LAO PDR

Since 2015, the Ministry of Education and Sports (MoES) has developed new primary teacher education curriculum to train future primary teachers how to teach in a primary classroom using the new primary curriculum. This was undertaken with the support of the Australian Government and the European Union through the BEQUAL program.

The focus has been on developing the curricula and on active teaching and learning adopting a student-centered pedagogical approach. In September 2019, a new Year 1 curriculum was introduced in the 8 Teacher Training Colleges (TTC) and a new Grade 1 taught in all primary schools.

Curriculum writers are preparing the curriculum for the English curriculum and for the Lao Language curriculum. International experts and the Teacher Development Center are working with these curriculum specialists. Workshops are being held to develop and finalize the curriculum materials for year 2 of the new Primary Teacher Training curriculum for Lao Language and English. Those two subjects are particularly challenging due to a large number of lessons that the writers have to develop, covering a lot of content and different teaching approaches.

The specialized workshops provide much needed support for the two curriculum writing teams to be able to finalize the materials. Both teams are closely aligning their curriculum to the primary curriculum, which means they have to integrate the new language approaches from the primary curriculum into the primary teacher education curriculum. The Lao language team worked on the module on writing which focusses on how primary aged students learn to write and how to teach them writing

In subsequent workshops, they will receive guidance on teaching Lao to ethnic students which will be the last module they will develop. They will reflect on strategies for teacher-students to learn how best to teach Lao Language to primary students with a different language background.

The English team is working on integrating the phonics approach into their curriculum. In the new English primary curriculum, phonics will be taught to students in Grades 3 to 5 to support them in developing literacy skills in English..

Teaching English phonics is a new approach for English teachers in Laos and consequently, it also needs to be included in the new English pre-service curriculum. Responding to the COVID-19 situation, the Ministry and BEQUAL developed new ways to organize workshops using online platforms so remote teams or with teams scattered could work with specialists.

The Lao Language training was delivered by an international teacher curriculum specialist who video-called from Dubai. She zoomed in daily and supported the writers through plenary sessions followed by individual meetings to provide technical advice on teaching writing including strategies, approaches and ideas for lessons. The curriculum writers have to master two tasks during the workshops – they have to learn about the new pedagogical approaches, and at the same time integrate them into the primary teacher education curriculum. This is very challenging, but the writers are highly motivated and hard working to ensure a better-quality primary education.

Condensed from:

<http://www.bequal-laos.org/progress-in-the-development-of-the-new-year-2-primary-teacher-education-curriculum/>



5

Cumulative Problem- Based Learning

Hajah Saripah Binti Embong
Malaysia



*“A scientific mind is one that
is always exploring, experimenting.”*

The group of three students representing Sekolah Menengah Agama (Atas) Sultan Zainal Abidin (Sultan Zainal Abidin Islamic High School) in Kuala Terengganu, Terengganu set up their exhibit at the International Young Scientists Innovation Exhibition at UNITEN in Selangor, Malaysia. They were 16 year old Grade 10 students of Ms. Hajah Saripah bin Embong, a Science and Design & Technology teacher. Their exhibit and presentation entitled “Smart Eazer” was later awarded the Gold Medal.

Sekolah Menengah Agama (Atas) Sultan Zainal Abidin (Sultan Zainal Abidin Islamic High School) is one of the top schools in the country located on the east coast of Peninsular Malaysia. The school consist of students from Form 1 to Form 5 (equivalent to Grades 8 to Grade 12). The majority of students are from the Malay Muslim community.



The school is a fully residential public high school and located in the downtown capital of Terengganu. Students are a mixture of high,

medium, and low-income families. Most parents are government civil servants while the rest work in the private sector or run self-owned businesses. Students from more remote areas stay in the dormitory attached to the school.

Most classes are conducted in the local language of Bahasa Melayu (Malay Language) except for Mathematics and Science classes which are in English.

The school is made up of 723 students, of which 61% of them are girls. The students are selected from a pool of excellent candidates based on academic and co-curricular achievements. Entry requirements include tests, interviews, and Quran recitation. Assessment also includes a student's contribution and involvement in curricular and co-curricular activities.

Over the years, the school has attained a reputation for achievements in co-curricular activities. The school has won awards in the Arab Speech Contest for South East Asia, in the Silat National Level competition, and represented the state in sports competitions in table tennis, football, volleyball, and netball at the national level. Its students have won the gold medal and special awards in international innovation competitions such as ITEX 2018 (International Invention and Technology Exhibition), IYSIE 2018 (International Young Scientist Innovation Exhibition), I-Envex 2018 (International Engineering Invention and Innovation Exhibition), INOVA 2018 (International Invention Show Croatia), I2Create 2019 (International Innovation, Creativity and Technology Exhibition), WICO 2019 (World Invention Creativity Olympic) and IPITEX 2020 (The Bangkok International Intellectual Property, Invention, Innovation and Technology Exposition).

Ms. Saripah and her co-teachers have created a culture for developing young scientists doing science research and inventions. Her course in Design & Technology features "Integrative Living Skills", a new way of seeking solutions to everyday problems.

Teaching science has led to a product development programme she uses in her Form 1 DLP class (How to do research for new products). This is a science-based process.

Using what she learned in her post-graduate degree in food science, Ms. Saripah set up a Food technology club which has experimented in a range of food technology activities. Because of the successes her school has had in these competitions, she has become a member of the Malaysian Research and Innovation Society (MyRIS).

Preparing to teach

After being assigned a class schedule, every teacher prepares a yearly lesson plan based on Ministry of Education guidelines. To do this requires a deep dive into specific topics, learning objectives, activities and means of assessing class progress.

Ms. Saripah. teaches five classes in Form 1 and Form 2 (the equivalent to Grade 8 and Grade 9) for students who are 13 and 14 years old in age. Specific science subjects are General Science (Form 1) and Design & Technology (Form 2). Every class consist of 18 to 25 students.

Early in the year, the class will be divided into groups of 4 to 6 students per group. On a weekly basis, each group will be given separate topics to research on, document and present.

In the General Science subject, the main theme is “An Introduction to Scientific Investigation”. Throughout the year, topics investigated range from the Cell as a basic unit of life to “Coordination and Responses”, Reproduction, Matter, the Periodic Table, Air, Light & Optics, and The Earth.

For Design & Technology, two main themes are covered: Inventive Problem Solving and Technology Applications. Over the course of the year, specific topics include Manufacturing Technology, Mechanical Design, Electrical Design, Electronic Design, Aquaponics Design, and Food Design.



Students do research to find information in journals to support their ideas. (ASEAN Young Innovators Programme)

Cumulative Problem-Based Learning

In teaching science, Ms. Saripah. takes a systematic approach to develop a particular way of thinking among her students. The main concept she seeks to develop in her class is called Cumulative Problem-based Learning, a process where new learning is built upon knowledge acquired in a previous lesson or lessons. It is an example of an active learning approach in which students are given the opportunity to learn independently as well as collaboratively, while understanding an ill-structured or complex problem (Yew, Chng & Schmidt, 2010).

For each new topic that students learn in class, they will be required to think creatively on how they can solve real life problems. This she does in an 8-step process she teaches her students to follow:

1. Identify the problem
2. Form a hypothesis
3. Plan the experiment

4. Control the variables
5. Collect data
6. Analyse and interpret data
7. Draw conclusion
8. Write a report.

Writing scientific reports also follows a format:

1. The Aim
2. The Problem Statement
3. The Hypothesis
4. Variables
5. Materials and apparatus
6. The Procedure
7. The Results
8. Analysis
9. The Conclusion

“It is important to develop a discipline to do science well,” says Ms. Saripah. “The scientific method requires discipline.”



*Making biscuits from soybean waste and leftovers.
(ASEAN Young Innovators Programme)*

What is learning?

“Learning is a process of acquiring knowledge or skill,” says Ms. Saripah as she walks around her lab moving from student group to student group. “It’s an ongoing process which can be done formally or informally. Formal learning is when the students learn the basic skills of reading, writing, and calculating. This is usually done in a specific venue known as the school. On the other hand, learning informally is when one learns outside the formal setting via other means – mass media, peers and the environment.”

As a science teacher, she is clear about her role in the classroom. “A scientific mind is one that is always exploring, experimenting,” says Ms. Saripah.. “I find a lively classroom, with active participation from students to be a positive sign that students are learning and enjoying

what they learn. My role as a teacher is to only facilitate their learning process, to let them discover what they learn.”

She uses the syllabus to organize topics for students to explore in her classes. In Malaysia, the Ministry of Education allows for syllabus compacting where teachers are allowed to choose several topics to discuss with students with the remaining topics for the students to explore themselves. “Our students are among the brightest in the country,” she says. “Hence teachers need to be smart to coordinate the learning process in class. This concept is widely referred to as a learner-centred classroom and in this way, all topics will be covered within a timeline stipulated in the syllabus.”

In teaching Science and Design & Technology, she emphasises the importance of knowledge and real life skills. What is important to her is how students apply the lessons learned to daily activities. In this way, it elevates the fun in learning for students.

“As a 21st century teacher,” she says, “I believe that teachers play a strong role as learning facilitators. Spoon-feeding should be lessened and best eliminated.” As an example, she arranges group presentations in class letting group leaders handle the session themselves. She steps in only to correct or assist students in case there is any interruption. This will also be the time that students will get instruction or information from her. Students’ presentations are a major input in assessing performance. Here, she evaluates them on validity and accuracy.

Thinking of her classes over the past year, she had this to say: “I think my students enjoy when they are assigned topics to present. When they select their favourite topics, I ask them to be creative in their presentations using posters, slides, games, skits, interviews and others devices. It is important that all students are actively involved and participating.”

When students aren’t getting the intent of the lesson, Ms. Saripah takes a step back. “I will typically begin with a pep talk for the entire classroom to trigger a eureka moment for their self-awareness on the importance of learning,” she says.

Then, she asks them to rethink and re-evaluate the problem at hand. If any of the students claim that they have lost interest or passion, she asks them to save that for later. “I believe this is the right time to build resilience, and only after putting much effort in learning that they will truly realize what they will be interested to specialize in.”

When students seem to be struggling, she assigns simpler tasks to guide them on through the learning material. The duties involve presentation, mini research and a simple report. Once completed, appropriate rewards are given accordingly.

For slow learners, students may not have found or discovered ways to master the course content. She believes that each student has individual potential. It depends on a teacher’s skill to unearth these potentials. An example she gives is when they read, they may not know which are important points in their reading. She teaches students the best ways to take notes for future reference. Such reading techniques and quick note-taking skills are useful for other classes as well and in preparing for exams.

“I make sure that all students in class are actively involved, especially the quiet and shy ones,” she says. “For the quiet ones who are shy to participate, I assign them to tasks like answering questions, presenting learning materials, and helping with classroom preparation. I make sure that these students can clearly communicate and participate in any and all activities.”

All students are required to prepare simple reports with adequate references to provide evidence of understanding of any new concepts. Every completed task is rewarded with valuable “star(s)” that they can redeem at some point in the school year for prizes. In this way, Ms. Sariyah ensures that no student of hers will be left behind. Team members of a learning team must ensure that the slow learners are up to their pace if they are all to obtain high group scores. Sometimes, she assigns a slow learner to be a group leader who others refer to as “Doctor” or “Professor” to spark their confidence to contribute more in group projects.

Success in learning

“Success, for me,” says Ms. Saripah, “is not just by obtaining all A’s on tests. My emphasis touches on aspects of self-improvement. I look for well-being, the development of soft skills, and the improvement of behaviour.”

Well-being refers to cheerfulness, kindness, empathy to friends and teachers, good intentions, selflessness, gratefulness and thankfulness. “It is about being a human being with heart,” she explained..

“Developing soft skills is important for future success,” she continues. “These include public speaking, impromptu speech, presentations, socializing with one another, quick learning, and problem-solving in a proactive and creative manner.”

Lastly, improving behaviours refers to those who are able to admit mistakes and have the willingness to improve.

“These aspects are precursors to huge positive impacts on other students, teachers, and communities around,” she smiles, “thus resulting in achieving school excellence.”

But there have also been low moments in teaching and learning. While teaching feels natural for her since she has mastered the topics she discusses in class, there are days when she is preoccupied with other responsibilities and less prepared for the lesson. Though she manages through this in an impromptu manner, she feels less fulfilled. “I need to do better,” she acknowledges.



Preparing to be a teacher

Ms. Saripah completed a Bachelor of Food Science degree from the Universiti Malaysia Terengganu in 2005 with a concentration in Food Service and Nutrition. Prior to that, she did a Diploma in Business Studies at the Universiti Teknologi Mara on a part-time basis.

Even before completing her Bachelor degree, however, she was already teaching at the high school level. To prepare for this, she took a short-term teaching course conducted by state education office. She would take these courses on weekends or join courses that would run for 3 days up to 2 weeks. For courses taken during school hours, she and other teachers would be selected by the school management to attend these courses on official time.

In 1983, after graduating from high school, Ms. Saripah received two offers: The first to pursue study in a Diploma of Science or to take a job as a teacher. After much deliberation with her family, she decided to accept the job as a teacher.

There are several ways for those interested in joining the teaching profession. One can request to attend teaching courses in the Institute of Teacher Education under the Ministry of Education Malaysia where courses are degree-level and may lead to immediate appointment as teachers after graduation. For those with undergraduate degrees in other fields, one can become teachers after taking a Post-graduate Teaching Program in the Institute of Teacher Education or in a university. Lastly, there are also opportunities to enter the teaching profession as offered by some Foundations or in private schools.

For those who pursue teaching courses in the Institute of Teacher Education, they are entitled to allowances from the Ministry of Education.

Ms. Saripah's role model was her father. Though he was not a teacher, she acknowledged that he taught her many important lessons in life from his good deeds and personal attributes. Her father was an attendant in a hospital, fully involved in voluntary activities for community wellness and well-being. This included being a police volunteer, donating blood, and being active in the neighbourhood clinic and in religious activities. "All of these were made possible by his discipline, meticulousness and strong will," she said. "These were the life values that inspired me to achieve beyond teaching students in the classroom."

Another role model she cites is Dato' Dr. Lawrence Walter Ng, a master teacher and author of "The Art of Learning". In August 2007, Ms. Saripah. was selected by the Education Officer to attend training programme called "New Adventures in Total Teaching" by Dr. Ng. It was through these seminars that she got a better appreciation and understanding of what Learning is about and how students can become better learners. In response, she created a learning, organizing technique for her classes she called the Cheers group.

Early in the school year, she will ask students to form groups in a class. Each group will appoint a leader, set a group name, and team cheer. This team cheer is meant to stimulate the competitive spirit in every one and elevate the group's image. They will need to do their team cheer before any group presentation. This is when the groups can

learn interpersonal skills, team work, and control stage anxiety in front of a public. Group scores are awarded for work and presentations done throughout the academic year.

Over the past few years, Ms. Saripah. has received numerous awards for teaching excellence from the Ministry of Education Malaysia at the school, district, state government, and national level. Aside from the Princess Maha Chakri Award 2017, she received the National Teacher Icon 2017, My Nation Icon Award 2017, the District Teacher Award 2019, the Woman Aspiration Award 2019, and the Excellent Service Medal 2018 by Duli YMM Yang Dipertuan Agong Malaysia.

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MALAYSIAN EDUCATION SYSTEM

Curricular Reform (with emphasis on STEM [Science, Technology, Engineering & Mathematics])

SEAMEO RECSAM

The Malaysian school curriculum is committed to developing the child holistically along intellectual, spiritual, emotional, and physical dimensions as reflected in the National education philosophy.

Consistent with this philosophy, education is to be an ongoing effort towards further developing the potential of individuals in an integrated manner. Such an effort is designed to Malaysian citizens who are knowledgeable and competent, possess high moral standards, and who are responsible and capable of achieving a high level of personal well-being as well as able to contribute to the harmony and betterment of the family, society, and the nation at large.

The plan is to transform the Malaysian educational landscape to prepare for a future Malaysian generation by design and no longer by chance.

A fundamental objective is to ensure that students are better equipped with knowledge and skills required for success in life. Graduates should be able to meet the 21st century challenges equipped with critical thinking skills, entrepreneurship, and are holistic and balanced between character and knowledge.

As Malaysia goes global, there is a need to develop citizens who can create wealth (create jobs) and enhance the social well-being of society. In short, this means bringing back the soul to Malaysian education developing learned values-driven talent.

In 2017, computational thinking in computer science was integrated into the new standard-based curriculum for primary schools and the standard-based curriculum for secondary schools.

One major change is the pedagogy of instruction and assessment. The focus will no longer only be on central examinations but will also now be based on school assessment, co-curricular activities, physical health, sports, and talent.

The new curriculum will place greater emphasis on higher order thinking skills, project-based learning, ICT (Information Communication Technology) game-based learning, and minimize content overlap with other subjects and post-secondary education.

National and school-based assessment will focus on increased proportion of questions that focus on creative and problem-solving, data interpretation and evaluation, and re-introduce practical testing elements.

Teacher development is a major part of the new education strategy. The new program identifies gaps in content knowledge and pedagogical skills of teachers and identifies gaps in content knowledge. The new program is tailored to professionally develop school improvement specialist coaches especially in mathematics and science.

Blended learning open source for science or mathematics studies (BLOSSOMS) is the integration of face-to-face ICT instruction which deploys new instructional strategies and pedagogical approaches. Students utilize adaptive learning software to learn at their own pace and through their preferred learning styles. Teachers then analyse the resultant data from the software to identify areas where students require extra coaching.

The curriculum will stress student-centred and differentiated teaching, but will have a greater emphasis on problem-based and project-based work, a streamlined set of subjects or themes, and formative assessments. The Malaysian school system aims to introduce an “accelerated learning pathway” for high-performing students.

System aspirations include access, quality, equity, unity, and efficiency.

Student aspirations include ethics and spirituality, leadership skills, national identity, language proficiency, thinking skills, and knowledge. These six aspirations are to be a balance between morality, and knowledge and skills.

The national target has been set to establish a ratio between STEM and non-STEM education careers (60:40 for youth interested in STEM). To achieve this target, “The STEM initiative in Malaysia Education Blueprint (2013 to 2025)” aims to prepare students with the skills to meet the science and technology challenges and to ensure that Malaysia has a sufficient number of qualified stem graduates.

Measures undertaken in the STEM initiative include raising students interests through new learning approaches and an enhanced curriculum, sharpening skills and capabilities of teachers, and building public and students awareness.

This will be carried out in four phases: (1) Benchmarking, (2) Training of Trainers (ToT) in a pilot phase, (3) ToT 2 and expansion of the pilot phase, and (4) an outreach program. Five stakeholder groups are identified: (a) STEM-focused schools, (b) Young STEM researchers, (c) STEM teacher training institutes, (d) science conclave, and (e) Young Scientist Summer Program.

Part of this strategy is to upgrade the quality of TVET in Malaysia. Through this route, the country seeks increase the numbers in TVET from 250,000 in 2012 to 650,000 in 2025. To achieve this, the Ministry of Education is working on an industry-led curriculum and new collaborative models. TVET is now a premiere lane for Malaysia in this regard.

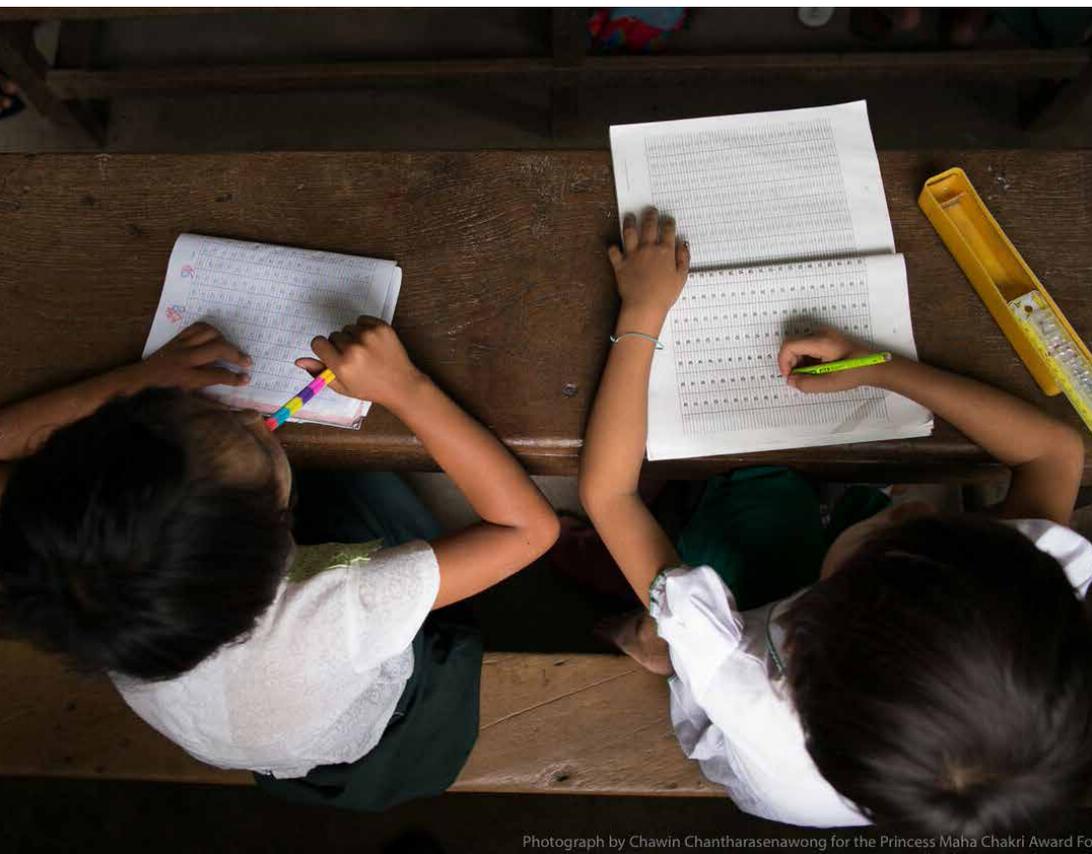


6

Structured Learning

Than Tun

Myanmar



*“Learning is a relatively permanent change
in behavior or knowledge that occurs
because of experience.”*

“I wanted to be a teacher when I was young,” said Mr. Tun, “So, I tried very hard and passed the matriculation examination in 1977.” With that, he enrolled in the Arts and Science University of Mandalay where he received a Bachelor of Science degree in 1981. To be a professional teacher requires taking the certificate training program. First PATC (Primary Assistant Teacher Certificate) training course after which he was appointed a primary assistant teacher in 1986. Then the JATC (Junior Assistant Teacher Certificate) training course in 1988 when he was promoted to junior assistant teacher in 1989. Finally, he attended the Institute of Education in Sagaing where he received a Bachelor of Education degree in 2013.

Mr. Tun had a role model in U Thant, the Burmese diplomat who became the third Secretary-General of the United Nations. Thant was the first non-Scandinavian to hold that position and led the organization during the turbulent 1960s. He was widely praised for his diplomacy and peace-keeping skills which were frequently needed during that troubled period. In his first term as UN Secretary-General, Thant facilitated negotiations between U.S. President John F. Kennedy and Soviet premier Nikita Khrushchev during the Cuban Missile Crisis of 1962, helping to divert what could have been a global catastrophe. Later that year, the UN embarked on Operation Grand Slam which ended the secessionist insurgency in the Congo in Africa. In his second term in the UN, Thant was well known for publicly criticizing the American conduct of the Vietnam War. During his two terms, he oversaw the entry of several newly independent African and Asian states into the United Nations. He refused a third term as UN Secretary-General and retired in 1971.

Thant was a devout Buddhist, widely admired and held in great respect by the Burmese populace. When the military government refused him any honors, riots broke out in Rangoon (now Yangon). These were violently crushed by the government with scores of casualties. Thant was awarded the Jawaharlal Nehru Award for International Understanding in 1965, the Gandhi Peace Prize in 1972, and the United Nations Prize in the Field of Human Rights in 1973. Thant died of lung cancer in 1974.

Thant started his career as a teacher at the National School and it was there that he became an inspiration to a generation of Burmese professionals that he taught before becoming a diplomat and before the country was closed to the world by its leaders in the army.

Progression as a teacher

Mr. Tun's progression as a teacher was through different levels starting as a Primary Assistant Teacher teaching Grade 5 in both Burmese (Myanmar) and English from 1986 to 1988. Two years later he was moved to Junior Assistant Teacher for Grade 6 History and English (1989-1990). Over the succeeding years, he moved up to teach Grade 7 first in English and General Science (1991-2000) followed by ten years of teaching Grade 8 English and Agriculture (a co-curriculum subject) (2001-2010). In 2011, he moved up another year to Grade 9 where he taught English and Agriculture from 2011 until he retired in 2019).

The students of the Basic Education High School in Ywarthargi, Wetlet Township in Sagaing Region come from a mixed community. The school is a government school set in a rural area where students have to come anywhere from 1 to kilometers away. They come to school by bicycle or motorcycle. The vast majority of students in the school are of median income (70%). 5% are from the poorest income group; 25% of the students come from well-off families.

Most of their parents are farmers. Some of them are merchants, workers, and government civil servants.

There are about eight hundred students in the Basic Education High School, of which 60% are girls. Students are Burmese and the school has no minority group students. Neither does it have children with disabilities and migrants are absent. The Myanmar language is the *lingua franca* (mother tongue language). Students do not use English in daily life.

Wetlet Township, where the school is located, is a township of Shwebo District in the Sagaing Division of Myanmar. It is located on the plains between the Mu River and the Irrawaddy. Its administrative seat is the town of Wetlet in the northeast part of the country in the heart of Myanmar. The region is historically significant. Hanlin City, one of the ancient cities of the Pyu Period is located nearby. The City, founded in the 1st century AD, was the largest and most important city until around the 7th or 8th century when it was superseded by Sri Kestra, an ancient Burmese kingdom. It was the first of Myanmar's many World Heritage Sites in June 2014. Beikthano and Sri Ksetra were the other 2 sites inscribed together at the same time.

Wetlet Township is bounded on the east by the Irrawaddy River, across from which are Singu Township and Madaya Township of Mandalay District in Mandalay Division. To the north of Wetlet Township is Shwebo Township, to the south is Sagaing Township, and to the west is Ayadaw Township.



Providing structure for learners of a different language

Just before retiring from the Department of Basic Education in the Ministry of Education, Mr. Tun was teaching English and Agriculture as a co-curriculum subject. He would prepare a weekly lesson plan.

A sample lesson is divided by unit, lesson, and exercises. One unit may have three lessons; each lesson having a number of written and oral exercises.

Teaching English as a second language (ESL) or English for speakers of other languages (ESOL) requires a structured approach so that students learn by using rules and conventions to master the new language. Methods of learning English are highly variable depending on the student's level of English proficiency and the manner and setting in which they are taught. Beginning students will need to transition from their home language or mother tongue (L1) to the language to be learned (L2).

One of the difficulties in translation is in the different syntax the English language has viz Southeast Asian languages, including Burmese. The syntax of the English language is based on Latin grammar which is very different from the Burmese syntax making it a difficult language to learn. Because of this, making one-to-one direct translation can be difficult and confusing.

To make English more easily understood and learned, Mr. Tun prepares vocabulary lists to expand his student's word power. Adapting comprehension, insight-oriented repetitions, and recasts are some of the methods used in training students in learning a new language. However, without proper cultural immersion or social learning of the associated language habits and reference points (internal mechanisms) of the host country are not completely transferred through these programs (Wright, 2010).

To make the language real, Mr. Tun relies on topics that his students can relate to. For example, in English, the topic might be the sport of football. To make it real, football, as a sport, is described using the English language. Mr. Tun uses his pedagogic tools to explain parts of the English language using football terms and images to drive the lesson home. The Learning Outcome (LO) is spelled out and by the end of this session, he should be able to assess if students have absorbed the lesson.

Training other teachers

As a senior teacher with many years of teaching experience, Mr. Tun has become a trainer of teachers, both in his school and around the country. A 45-minute teacher training session can be broken down into smaller segments. In the first 5 minutes, Mr. Tun introduces the topic and the desired learning outcomes. As the teacher-trainer, he asks teachers what are the most effective teaching strategies and what principles are most effective for teaching and learning. (Note: The structure used in teacher training in a second language can be used for students adjusting this to their level of learning.)

1. The teacher makes teaching clear for learners.
2. Teachers and students use a variety of approaches in class.
3. The teachers and students give and receive clear and regular feedback.

The trainer demonstrates some basic principles for effective learning and teaching with a 45 mins lesson plan.

In the next 5 minutes, the teacher-trainer focuses on a particular lesson. He organizes his teacher trainees as follows:

1. Trainer organizes the class into pairs.
2. Trainer asks the pairs to ask each other questions and answer these.
3. Trainer asks each pair to report back to the class.

4. Trainer explains that this step activates students' prior knowledge, as in the example of football, above.

The next 15 minutes, the teacher-trainer goes through an exercise with the students to begin to develop practice and habits. These can be done in steps:

1. Teachers read the text.
2. Students underline the words they do not know, referring to a dictionary or glossary.
3. The trainer facilitates the class.
4. The trainer does the model reading (2 paragraphs) and asks students to repeat after him/her.
5. Teachers help students figure out the meaning of unfamiliar words from the context.
6. The trainer asks questions to check comprehension.
7. The trainer gives feedback.
8. The trainer explains that other teachers can use appropriate strategies to teach new vocabulary items, pronunciation, and to check comprehension.

The last 20 minutes of the class is for practice.

1. Organize the teachers into groups of 4.
2. Give out a large sheet of paper to groups.
3. Ask them to write a lesson plan, which uses the basic principles for effective teaching and learning.

What is learning?

“Learning,” says Tun, “is a relatively permanent change in behavior or knowledge that occurs because of experience. Learning, when occurring cannot be directly seen but it can be estimated by measuring performance to meet basic human needs. The next century will provide

unprecedented means for communication and for the circulations and storage of information, each individual must be equipped to seize learning opportunities throughout life both to broaden their knowledge, skills and attitudes and to adapt to a changing complex and interdependent world.”

For Mr. Tun, he knows when a child is learning by the questions he or she asks either individually or in groups. What is ultimately meant by learning is its intent: To be successful at life and at work later in life.

When children fall behind or do not appear interested in learning, Mr. Tun takes them aside after hours to figure out what the problem might be. “I will try to explain the lesson they have difficulty understanding”, even using his leisure time for remedial teaching.

English, with its many exceptions to the rule, is a difficult subject to learn. To teach English as a language of communication, Mr. Tun uses English sayings and idioms to get his students’ interest. To keep it light, he uses stories, jokes, and abridged novels such as the story of Romeo and Juliet, and other stories the students can relate to. One of this is the *Yamayana*, the national epic of Myanmar. This is the Burmese



version of the *Ramayana*. *Yama Zita* is comprised of nine known pieces in Myanmar. *Yamayana* is the name given to the story itself. *Zatdaw* refers to the acted play being a part of the *jataka* tales of Theravada Buddhism.

“It is a great teaching moment for me when students display curiosity and interest on what we are discussing, concentrating on the readings,” he says. Gaining facility in English speaking takes time and practice. “Speaking is a good way to practice,” he says. “Reading and writing is good but speaking makes the language more real.” To help students overcome the barriers of language, Mr. Tun gets them to use dictionaries and online learning to get more resources for knowledges, sharing and practice.

“Concentration, interest, getting good responses and good grades for my children is my measure of success being their teacher,” he says at the end of the day. Standing up, he addresses his students before he sends them home saying, “Let us join hands to create a better world.”

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EARLY CHILDHOOD AND BASIC EDUCATION IN MYANMAR

UNICEF Myanmar

THE CHALLENGE

Education is a child's right and a key to national growth and prosperity. Myanmar has made strong progress in increasing children's access to education and improving the quality of education, yet many children remain out of school, and schools struggle to give young people the strongest start in life.

Key challenges in Myanmar include limitations in the quality of education services at all levels of education and the number of qualified teachers, as well as weak school infrastructure and outdated teaching methods. In addition, protracted conflicts and emergencies are disrupting many children's path to learning.

EARLY YEARS AND PRIMARY EDUCATION

A child's early years are vital to develop the skills and attributes that prepare them for the future. Only 20 per cent of children in Myanmar between ages 3 and 5 are attending an organized early childhood education programme, according to a 2015 survey.

Access to early learning is recognized as a specific child right and a key target under the Sustainable Development Goals for 2030.

At primary school level, 81 per cent of children aged 6–10 years attend school, the 2014 census found. This means that 1 in 5 children are not attending, either because they never entered school or dropped out. Fees related to education are one of the main causes for many children to give up on schooling. Another main reason for children to drop out of school is the limited quality and relevance of the education that is offered. Economic hardships force many young children to give up education in order to work.

ADOLESCENCE

Adolescence is a period of great opportunities – as well as special needs and potential risks. During this delicate period (age 10–19), many children are out of school, with school attendance dropping to around 30 per cent by age 17, according to the 2014 national census.

A 2015 labour force survey found about 21,000 underage child workers. More than 60 per cent were girls.

HUMANITARIAN CHALLENGES

Natural disasters as well as conflicts are affecting thousands of children in Myanmar. Around 184,000 children aged 3–17 in conflict-affected areas of Kachin, Rakhine and northern Shan States are most at risk of missing out on education, according to a UNOCHA humanitarian needs survey of 2018.

THE SOLUTION

Myanmar has made upgrading the national education system a priority, and UNICEF supports the Government to implement the National Education Strategic Plan 2016–2021, together with other partners. UNICEF also supports the implementation of the National Early Childhood Care and Development Policy.

The goal is to ensure all children—especially the most disadvantaged—are able to access inclusive and quality education throughout the journey of childhood.

Bringing more children into education at an early age, and keeping them in quality schools as they get older, requires action on multiple fronts. Strengthening teaching and learning policies and systems, improving learning environments and enhancing the capacity of educational personnel, are vital. Targeting the specific and different barriers children face in accessing inclusive and quality education is also key.

A HEAD START

UNICEF supports measures to ensure all children aged 0–8 years receive holistic, quality care and support for their optimal development, through our assistance to the national policy for Early Childhood Care and Development.

In 2017, over 1 million children in kindergarten benefited from learning and playing materials provided by a multi-donor fund through UNICEF.

In addition, vulnerable children aged 0–5 years are being reached through pilot holistic Early Childhood Intervention services in seven sites. These integrate child protection, health, nutrition and sanitation/hygiene and education services for children who are developmentally delayed, disabled, or atypical in development, helping them transition into preschool and primary education.

BASIC EDUCATION

Boosting primary education quality is vital to keep school-aged children in school. UNICEF supports the operationalization of key national quality frameworks and guidelines for schools and education workers, helping make schools more inclusive and relevant to children's needs.

Children's learning outcomes have directly improved as a result of in-service teacher education services reaching more than 32,000 teachers since 2012.

"I have many expectations of my students, but most of all I want them to finish school, and become responsible citizens, so that they can contribute to the development of their village," – U Khin Maung Aye, a primary school headmaster in Rakhine State whose school has benefited from UNICEF-assisted school rehabilitation.

ADOLESCENTS

UNICEF works with the Government and partners to help ensure that children transition successfully from primary to secondary education. Children who missed out early on education opportunities may access non-formal primary and middle school education initiatives that give them a second-chance opportunity to rejoin the formal school system.

HUMANITARIAN CHALLENGES

UNICEF co-leads the coordination of Education in Emergencies at national and sub-national level. In 2018, more than 26,000 children aged 3-17 years were supported by UNICEF to access formal and non-formal basic education while 78,007 children benefitted from Education in Emergency (EiE) materials.

All children need to access the benefits of learning. Giving children a second chance at education rekindles their hope and prospects.

<https://www.unicef.org/myanmar/education>



7

Culture-Based Learning

Dr. Jesus Catigan Insilada

Philippines



“Learning occurs when my students become participative in our discussions. When they ask many questions.”

The Caninguan National High School in Lambunao town is high in the mountains of Panay Island in the province of Iloilo. The students in the school come from the indigenous cultural communities of the Panay Bukidnon and Ati with a total enrollment of 1,370 students for both the Junior and Senior High School. 55% of them are girls. Almost all (95 percent) belong to the Panay Bukidnon, the same Indigenous Peoples group to which Dr. Jesus Insilada belongs. The Panay Bukidnon cultural community is the major indigenous peoples (IP) group in Panay Island. As in many IP communities living in hard-to-reach areas, nine out of ten families live below the country’s established poverty line. The parents of students in the school are farmers engaged in the buying and selling of vegetables and other crops. Others run small stores (called sari-sari stores). The poorest are landless farm laborers.

Dr. Jess, as he is known to his students, was appointed school head and principal in 2017. A principal is a full-time position with a full de-load from teaching. Despite this de-load, Dr. Jess chose to take on a teaching load in Creative Writing and Creative Nonfiction in the Senior High School department. In the same school earlier, he was a teacher in English 7 in the Junior High School Department.

Caninguan National High School is a public high school located almost 13 kilometers from the *poblacion* or town proper. It has hilly terrain and there are areas that are inaccessible to the *habal-habal* (motorcycle ferries) so students have to walk long distances, and many must cross rivers and tread hilly terrain to get to school. From the school, one has a good sight of the majestic Mt. Baloy.

The school also has students with disabilities or who are migrants who have transferred from areas of conflict seeking the isolation of the

area for safety and security. “Our school population is quite diverse,” Dr. Jess explained. “We cater to all kinds of students with different backgrounds. We have some students who are sons and daughters of teachers, seamen, OFWs (overseas Filipino workers), and other professionals. They comprise around 10% of the student population.”

In most subjects, English is used as a medium of instruction at the high school level. In daily conversation, however, and in school programs, the local languages – *Kinaray-a* and *Hiligaynon* – are used to promote culture-based education.

Training to be a teacher

Dr. Jess finished a Bachelor of Science degree in Industrial Education from Calinog Agricultural and Industrial College in Iloilo Province in 2000. After he passed the Licensure Examination for Teachers that same year, he joined the Department of Education and was assigned to teach at the Alcarde Gustilo Memorial National High School, a barangay high school catering to indigenous learners. In the beginning, his position was as a volunteer teacher with an allowance paid for by the local government. “For me,” he said, “it was an important training to prepare myself to become a productive teacher creating impact on the lives of my learners, especially my fellow indigenous peoples.”

Learning how to become an effective teacher came from listening to and being mentored by fellow teachers who were more senior to him. “I learned by asking them questions, discussing with them content and pedagogy, and by observing how they managed their students to achieve desired results in teaching.”

After graduation from high school, Dr. Jess and his older sister talked about her plans for him for college. She advised him to enroll in the local college having supported his education since he entered high school. His sister, Diding Nereza, the fourth child of nine siblings, was a beautician, manicurist-pedicurist in the local salon in Calinog. She was determined that Jess be the first in the family to attend college and

become a professional. Aside from the eldest child who got a 2-year vocational course in college, none of his other older siblings were able to attend college due to poverty. Both of their parents were farm laborers and his father would do seasonal work, shifting from type of one work to another depending on the season of the year. He would sell fish and gather tuba (fermented coconut juice) to make vinegar during the off-season, and work as farm laborer during the planting season. Later, Jess' mother worked in a faraway city as a household helper. The younger Insilada children were left under the care of the father and the older siblings.

Dr. Jess enjoyed his elementary school years. Because of his aptitude for learning, he became his teachers' favorite. In the Third Grade, his teachers in a small barangay school started to train him for competitions having him stay in their homes from time to time, sometimes for days or weeks to train for district contests like quiz bees and singing, dancing, drawing, and writing contests.

“My closeness with my elementary teachers made me observe what they were doing,” he said. “I was fascinated with what they did for me and all the other kids. They devoted extra time to students like me without extra pay. They were committed to their work because of their love for their students. That is why, when people asked me what I wanted to become, I would usually say that I wanted to become like our teachers. Or like our principal.”

When Jess was in high school, he joined the school newspaper. He idolized the school paper advisers, Mr. Delariarte and Mr. Castro. He found them very eloquent and both were good writers. They were much sought-after English teachers who could finish a well-written essay in a short time. They were Dr. Jess' early role models.

When he was in college, Mr. Acosta soon became his favorite mentor. He was Jess' instructor in Physics and Industrial Arts, but he would exchange a wide range of ideas with him from religion, to paranormal science, to outer space. “I admired his dedication to his students,” Jess said of Mr. Acosta, “giving extra time to his students including myself to answer our questions and clarify lessons we did not understand initially. He even spent extra time to help me review for the Licensure Examination for Teachers (LET) and that was for free.”

Diding Nereza, his sister, was not a teacher but she was instrumental in his becoming one. She supported him financially through high school and college, believing that teaching was the best fit for him considering his innate intelligence, different talents, and attributes. He had the right character to be a good teacher having shown hard work, patience, and creativity.

Though Dr. Jess had other plans for college and for a career, she encouraged him to take up teaching. Dr. Jess had wanted to become a broadcast journalist, or an architect, or even a creative writer. In the end, limited family finances made the decision. His sister would not afford to send him to the city where these courses were available.

“I understood her point,” he admitted. “Her advice was that after I finish an education course in a local college, I could support myself and if I wanted to, I could take a second course of my choice. My sister even prolonged her getting married to focus on supporting my studies until I got the degree.” Her challenge to him was to be the first to graduate college in the family and to have a profession. It was his sister who encouraged him to use his innate intelligence and special talents to earn a teaching degree to better serve their indigenous cultural community.

Dr. Jess would listen to the opinions of the elders of the village who said they needed teachers who were from their own community to address the growing number of enrollees in the local schools.

In 2000, Dr. Jess graduated with a Bachelor of Science degree in Industrial Education (cum laude). His parents, a simple farmer and a house maid, both attended his graduation. His sister insisted on them being present for such a meaningful occasion for the family and the community. (Two years later, Diding Nereza got married. She said she was not getting younger in age. Even then, as a married woman, she still helped Dr. Jess finance his master’s degree because he was not yet a permanent teacher at that time.)

In 2005, he became a permanent teacher in the Department of Education and graduated with a master’s degree in 2007. By then, he had forgotten to do a second course.



A typical school week

“I teach Creative Writing and Creative Nonfiction in the Senior High School,” explained Dr. Jess. “I use a culture-based approach drawing from our Panay Bukidnon heritage. The topics and prompts for their creative writing endeavors are usually those about their culture and realities in their indigenous cultural communities.”

Dr. Jess encourages his students to undertake community research asking people in the community about various topics assigned to them for their creative writing themes. Topics usually center around customs, traditions, community situations, issues concerning indigenous communities, indigenous peoples’ rights, development and indigenous communities, indigenous education, and the like.

To prepare for the course, Dr. Jess is guided by the course syllabus based on the competencies set by the Department of Education. “Context is important,” he says, smiling. “I usually contextualize the process by integrating the aspects of our culture used as reading selections, or as samples in assigning writing tasks to my students.”

Integrating the uniqueness of the Panay Bukidnon and Ati cultures to encourage students to write more about their culture is a recurring theme. By doing so, they can discover more about themselves and become more deeply rooted and proud of their culture. As a result, students become more aware of multi-culturalism. “They become more welcoming of others,” he said, “and they become more accepting of cultural differences.”

Living some distance away from the school, Dr. Jess travels from home to school very early on Monday morning. A flag raising ceremony starts the school week. As principal, he would give announcements to all students assembled in the school gym. Teachers may give announcements, as well or as needed. Then, all the learners would proceed to their classrooms for the start of classes. Dr. Jess’ classes are scheduled in the afternoon so he can attend to his administrative functions and concerns as school head in the whole morning.

To prepare for class, Dr. Jess draws up a daily lesson plan. “I am very excited in preparing my daily lesson plan in anticipation of my students’ interest to our every lesson which is based on their contexts,” he smiles. “I look forward to what they can produce using their own talents.”

On Tuesdays, Wednesdays, and Thursdays, he stays in a boarding house in front of the school. On Friday afternoon, he takes the long ride home to his hometown of Calinog, one town away and located at the border of Iloilo Province and Capiz Province on Panay Island.



On learning

Sitting in his principal's office, Dr. Jess thought deeply about the question. "I can say that learning occurs when my students become participative in our discussions. When they get engaged in our tasks. When they ask many questions."

The outputs that they submit are one of the bases that show evidence that students have understood and applied the concepts or principles that are discussed in Dr. Jess' Creative Writing or Creative Nonfiction classes.

What do you do when children do not seem to be learning?

"I usually call the attention of the students who have to catch up in learning the competencies of the lessons," he started. "I would talk to them privately after classes."

Students who do not comply with the assignments or who fall short of expectations are met privately and given a second chance to make up. "As a teacher, I must listen to the circumstances as to why they have low scores or were not able to submit projects, homework, or outputs. I need to talk to each one of them and guide them on what to do so that their learning will not be compromised."

Thoughts on being a teacher

"A great teaching moment happens when we ask many more questions than provide ready answers," says Dr. Jess. "When my students and I ask the same questions and we try to answer them by developing insights together, it means that we become more and more inquisitive. We become more aware of the issues around us in the process, and we become more ready to learn new things."

A great moment happens when a student gives an insight which the teacher may not have thought of before. Or if they ask more questions. This is an indication that learning is happening, and that they are ready

to discover and learn new things.

“It is more meaningful,” he explained, “if they relate the lessons, the principles, and the concepts to their community situations or to their personal experiences as indigenous peoples. It is then that they come up with resolutions and realizations that redound to contributing to community welfare and development.”

But there have also been low moments in his teaching career.

One such moment came about when students in a particular class did not appreciate the relevance of studying their culture citing the importance of modernization to their well-being. Dr. Jess felt down as if the perceptions of students were a sign of indifference to the relevance of their being an indigenous people and of their struggle towards equality and improvement.

“It was a sad experience for me to know that some of my students weren’t accepting their being indigenous peoples or that they were not aware of their being part of the indigenous community,” he said ruefully. “Still, I get challenged as a culture advocate to do something to educate them regarding their cultural background and to develop in them a cultural sensitivity and better understanding of themselves and others.”

This is the reason why Dr. Jess advocates for a culture-based and inclusive education: To make the lessons culturally sensitive, reality-based, and relevant. As a proponent of Culture-based and Inclusive Education (CbIE) Program, he makes use of the local culture as content and the basis of his pedagogy to suit the needs of his indigenous learners.

For him, the measure of success of a teacher can be measured by the impact that he or she has made in the lives of the students. Are they discovering more about themselves? Are they accepting who they are? Are they more accepting of others and their backgrounds? Are they contributing to the welfare and development of the community?

“My success as a teacher is felt when my fellow indigenous peoples who have earned degrees go back to our community to serve and to help alleviate the plight of the people and to inspire others especially the youth to do the same, so that the cycle continues.”

CODA

In 2010, Diding Nereza died from complications due to lupus. She left with Dr. Jess and his siblings her 3 children, one boy and two girls.



Creative nonfiction

An excerpt from “My Voice and Advocacy: *Ang Akon Limug Kag Kawsa Bilang Tumandok kag Manunodlo* (My Voice and Cause as Indigenous Teacher)”

By Jesus ‘Igtaman’ Catigan Insilada, Ed.D.

“As a little boy, I was fascinated by the songs and stories of my Uwaw Inggo and Uwaw Osing, my grandparents on my mother’s side. Uwaw Inggo was a native of Sitio Bolicao while the ancestors of Uwaw Osing can be traced from Tacayan, Taganhin, and Siya --- all are barangays of the Municipality of Tapaz, Capiz. Uwaw Inggo was a male *paltera* (midwife) and *manugluy-a* (spiritual healer who uses ginger). He was also an expert in making woven containers like *tabungos*, *tabig*, and *pugadan*; While Uwaw Osing was known as *manuglibod ka tabako* (peddler of dried tobacco leaves) who had also special skill in weaving. She usually wove mats and hats.

“As a child, I heard from Uwaw Inggo and Uwaw Osing that their relatives from the other side of Pan-ay River (i.e., Tacayan, Taganhin, Agtambo, and Siya) would visit Bolicao once in a while. These relatives sported tattoos called *batung-batung* on their arms and legs. My grandparents would relate that their relatives from Pan-ay would challenge the *binanog* (traditional dance imitating the hawk bird) dancers of Bolicao during special occasions like *punsyon ka hungaw* (wedding feast, baptism, and fiesta). Famous *binanog* dancers were Manay Budak and Lampong Duri who were the siblings of Ulang Ador.”

Creative Writing

HALAWODNON AKO	I AM A HALAWODNON
<p><i>Halawodnon ako</i> <i>Nga ginbun-ag sa pangpang ka suba</i> <i>Ginbatiti sa masinaro nga tubig ka tuboran,</i> <i>Gin-amuma ka dagaya nga Bukid Dila-dila.</i></p>	<p>I am a Halawodnon Born by the riverbanks Nurtured by the clear spring waters, Nourished by the richness of Mt. Dila-dila.</p>
<p><i>Ginasugid ko</i> <i>Darayarwon ko nga kalirwatan</i> <i>Maanyag nga mga binukot, mga buyong nga isganan,</i> <i>Sagad magpanakayon sa kadagatan, nagtaklad sa kabukiran.</i></p>	<p>I declare My noble ancestry Of lovely kept maidens, daring chieftains, And fearless navigators, Who escaped to the highlands In search for freedom.</p>
<p><i>Ginapabugal ko</i> <i>Nga ako tagpanubli kaaram ka mga babaylan.</i> <i>Nagapanalaytay sa akon kaugatan ang pagkahalangdon</i> <i>Ka mga manoghusay kag mga manogbulong.</i></p>	<p>I say with pride That I inherit The wisdom of the shamans. Through my veins course the blood of noble arbiters and healers.</p>
<p><i>Pamatii ninyo</i> <i>Ang amon mga sugidanun,</i> <i>Sangka maragtas nga nagapakita manggaranon nga nagligad</i> <i>Maggad ka katiringban nga sa urihing-tubo ginahuwad.</i></p>	<p>Listen To our epics, Heroic stories of the distant past. These are treasures of extraordinary traditions Passed onto heirs and future generations.</p>
<p><i>Halawodnon ako,</i> <i>Ginaangkon ko ang kakanay ka Alawihaw,</i> <i>Kag ang kapagsik ka masulog nga sulgan,</i> <i>Saksi sa akon mga kadaragan-an mapag-on nga kabukiran.</i></p>	<p>I am a Halawodnon, I have the stillness of the Alawihaw deeps, And the rapture of its rapids. The towering mountains bear witness to my triumphs.</p>

HALAWODNON AKO	I AM A HALAWODNON
<p><i>Sularwa ninyo</i> <i>Maduagon ko nga pamayo kag puni</i> <i>Nagapakita dumaan nga taliambong kag kauti</i> <i>Gindihon sandig sa mga daramgubanon.</i></p>	<p>Behold My brightly colored garb and ornaments - They showcase the ancient embroidery and Intricate weave of hopes and dreams.</p>
<p><i>Ginapabugal ko</i> <i>Ginaangkon nga pagbinatasan,</i> <i>May pagtaba sa kinamatarong ka iban,</i> <i>may binambalan,</i> <i>Mataas ang dungan, sa mga pagtiraw</i> <i>indi madali malingkang.</i></p>	<p>Pride is my way of life In truth and right, no other wronged, My solemn word ever unbroken. And with my twin superior spirit, To trials I never succumb.</p>
<p><i>Ginakabubi ko</i> <i>Namat-an nga kultura kag mga tradisyon</i> <i>Ginapaambit ko mga kinaiyang' gindawat</i> <i>sa kamal-aman</i> <i>Isinggit ko sa bilog nga kalibutan ako</i> <i>tunay nga Halawodnon.</i></p>	<p>I thrive in My culture and tradition My heritage rich in beauty and wisdom. To all the world, let me declare A true-blooded Halawodnon I am.</p>

NATIONAL INDIGENOUS PEOPLES EDUCATION POLICY FRAMEWORK

by Mark Anthony Llego
Department of Education
(condensed)

Indigenous peoples (IPs) remain to be among the most vulnerable and marginalized members of the citizenry. Many IP communities continue to lack access to decent basic social services, have limited opportunities to engage the mainstream economy, and suffer social, economic, and political exclusion.

[According to the *Komisyon ng Wikang Filipino (Commission on Philippine Language)*, there are 135 recognized local indigenous Austronesian languages in the Philippines, of which Tagalog is vehicular and each of the others are vernacular. There are 134 ethnic groups in the Philippines, the majority of which are indigenous, though much of the overall population is constituted by only 8-10 lowland ethnic groups...In the 1990s, there were more than 100 highland tribal groups constituting approximately 3% of the population.]

Among the current disadvantages that IPs face, access to culture-responsive basic education stands out as one of the most critical to address, especially if the right to basic education is viewed as an “enabling right.” Basic education is an essential means for IPs to claim their other rights, exercise self-determination, and expand the choices available to them.

The problem of the IPs’ lack of access to education services is compounded by the fact that in areas where there are schools accessible to them, many of these have limited or no capacity to provide culturally appropriate education. Recommendations of various IP consultations have reiterated time and again the desire of IP communities for an education that is responsive to their context, respects their identities, and promotes the value of their traditional knowledge, skills, and other aspects of their cultural heritage.

Effectively responding to the basic learning needs of IPs is a key measure in achieving the country’s Education for All (EFA) commitments and the Millennium Development Goals (MDGs). In line with the thrust of the Department of Education (DepED) to pursue institutional and systemic reforms to improve the efficiency and quality of the delivery of basic education for all, IP education has been included as a reform item in the Basic Education Sector Reform Agenda (BESRA).

There are existing models and best practices on IP education based on successful projects and interventions by DepED, non-government organizations (NGOs), IP organizations (IPOs), and other community-based initiatives. The DepED recognizes the need to consolidate these experiences and lessons to formulate a systematic and coherent IP Education Program, which subscribes to a rights-based approach and gives primary importance to the principles of participation, inclusion, and empowerment. Within a broader perspective, the DepED considers this as a step towards a Philippine educational system that is truly inclusive and respectful of the diversity of learners...

Policy Background

The right of indigenous peoples to education is primarily enshrined in the Philippine Constitution, the Indigenous Peoples Rights Act (IPRA), and numerous international human rights instruments, especially the United Nations (UN) Declaration on the Rights of Indigenous Peoples.

The Philippine Constitution (1987) stipulates that the State shall “protect and promote the right of all citizens to quality education at all levels, and shall take appropriate steps to make such education accessible to all” (Art. XIV, Sec.1)... to encourage indigenous learning systems (Art. XIV, Sec. 2.4)..to “recognize, respect, and protect the rights of indigenous cultural communities to preserve and develop their cultures, traditions, and institutions” (Art. XIV, Sec. 17).

The Indigenous Peoples Rights Act (IPRA) of 1997 (Republic Act No.8371)...mandates the State to “provide equal access to various cultural opportunities to the ICCs/IPs through the educational system, public or cultural entities, scholarships, grants and other incentives without prejudice to their right to establish and control their educational systems and institutions by providing education in their own language, in a manner appropriate to their cultural methods of teaching and learning” and that “(I)ndigenous children/youth shall have the right to all levels and forms of education of the State” (Sec. 30, Chap. VI).

The UN Declaration on the Rights of Indigenous Peoples (2007) ...contains specific provisions on IPs’ right to education. Article 14 of the Declaration stipulates that IPs “have the right to establish and control their educational systems and institutions providing education in their own languages, in a manner appropriate to their cultural methods of teaching and learning” (14.1); “indigenous individuals, particularly children, have the right to all levels and forms of education of the State without discrimination” (14.2); and that the State “shall, in conjunction with indigenous peoples, take effective measures, in order for indigenous individuals, particularly children, including those living outside their communities, to have access, when possible, to an education in their own culture and provided in their own language” (14.3).

In response to the distinct educational needs of IP communities, the DepED has earlier issued DepED Order No. 42, s.2004 (“Permit to Operate Primary Schools for Indigenous Peoples and Cultural Communities”) and DepED Order No. 101, s.2010 (“The Alternative Learning System (ALS) Curriculum for Indigenous Peoples (IPs) Education”). The DepED intends to build on these existing policies and further strengthen the policy environment that would enable all its offices and units, especially those in the frontline of service-delivery, to effectively address realities on the ground...

Policy Statements

The policy of the Department to (to)...recognize, protect, and promote the rights and welfare of ICCs/Ips...in order to address and incorporate their special needs, histories, identities, languages, knowledge, and other aspects of their culture, as well as their social, economic, and cultural priorities and aspirations.

a) Ensure the provision of universal and equitable access of all IPs to quality and relevant basic education services towards functional literacy for all.

b) Adopt appropriate basic education pedagogy, content, and assessment through the integration of Indigenous Knowledge Systems and Practices (IKSPs) in all learning areas and processes...a) mother tongue-based multilingual education (MTB-MLE); b) culture-responsive education for sustainable development and c) alternative modes of instructional delivery and assessment schemes to address the peculiar needs of IP learners.

c) Provide adequate and culturally appropriate learning resources and environment to IP learners. Aside from ensuring the proper selection and development of textbooks and other supplementary learning materials provided to IP learners, the DepED shall put in place a policy that would promote the establishment and maintenance of culture-responsive educational infrastructures, learning environment and spaces.

d) Strengthen the hiring, deployment, and continuous development of teachers and learning facilitators in the implementation of its IP Education Program.

e) Establish and strengthen appropriate multi-level units within DepED responsible for planning, implementing, and monitoring IP education interventions.

f) Expand and strengthen institutional and civil society linkages to ensure proper coordination, knowledge-sharing, and sustainability of the IP Education Program.

g) Implement stronger affirmative action to eradicate all forms of discrimination against IPs in the entire Philippine educational system.

<https://www.teacherph.com/national-indigenous-peoples-education-policy-framework/>



8

Differentiated Learning¹

Sarabjeet Kaur

Singapore



*“Children learn all the time – by watching,
listening, writing and doing.”*

Anderson Primary School in the North Zone district of Singapore has been Madame Sarabjeet Kaur’s school since 2002. Reflecting Singapore’s demographic diversity, the school is multi-racial with most of the students living within the vicinity of the school. They either walk to school daily or take a public bus or the MRT (Mass Rapid Transit train). Others are dropped and picked up from the school by their parents by car.

Parents have a wide range of occupations. Most are of middle income where both parents work. A very small number of students are from low-income backgrounds. These students can apply to be on the Financial Assistance Scheme (FAS) where they are given free uniforms, textbooks, and weekly coupons to buy food from the canteen.

Anderson Primary is a government school where English is the main language of instruction though students also learn a Mother Tongue Language – Mandarin, Malay, Tamil, or a Non-Tamil Indian Language such as Punjabi. The total enrolment is about 1300 students and there are about 95 staff. There is an even proportion of both boys and girls in the school.

Sarabjeet Kaur, Mme. Kaur to her students, teaches two classes – Primary 6 Mathematics and Primary 6 Science. These are 12-year old graduating students. The two subjects were her major areas of study when she trained to be a teacher at the National Institute of Education where she completed a 4-year program graduating with a Degree of Bachelor of Arts with Merit and a Diploma in Education with Distinction in 2002.

Any individual who is interested to join the teaching profession

.....
1 “Differentiated Instruction is just one of the many teaching approaches I use. Perhaps a broader title could be used to encompass this -- ‘Teaching is Heart Work’ or ‘Finding Joy in Teaching and Learning’.” ~ Mme. Kaur

can apply to the National Institute of Education. Suitable candidates are then called for an interview to determine their suitability for the job.

Preparing for class

To prepare to teach a class for the year, Mme. Kaur takes time to meet the previous teachers of the students to find out more about their profile. This profile helps her get a better sense of the socio-emotional status as well as the learning needs of each student. The profile also checks if there are any students in the class who come from disadvantaged backgrounds or who may have special learning or behavioral needs.

Lessons are planned for the week for all subjects and across classes. The syllabus is provided by the Ministry of Education and the scheme of work is prepared by teachers within the subject departments in the school. This guides individual teachers who prepare the learning outcomes that are to be achieved for each lesson.

“I think through about the methodology and resources I would need for each lesson,” she says. “There is a template that is used by all teachers in the school to plan the weekly lessons. This weekly lesson plan includes the lesson objectives, activities conducted, resources used and the assignments for students.”

The typical school week starts at 7:15 in the morning when teachers are expected to report. Classes begin at 7:30. Twice a week, there are supplementary lessons for students after the day’s lessons. Mme. Kaur says she usually spends a considerable amount of time outside lesson time for lesson preparation, marking of assignments, mentoring younger teachers and in professional development of the staff. There are also a weekly staff or department meetings for teachers to discuss issues pertaining to the work.

There are different forms of mentoring that she carries out. For Beginning Teachers, she helps them adjust to the school focusing on classroom management, pedagogy, and meeting expectations. One-

on-one or small group sessions are conducted weekly or fortnightly. Then there is mentoring of more experienced teachers who may have a particular area for improvement identified. Mentoring for both levels also involves classroom observation.

Mme. Kaur has been a lead teacher in science at the elementary level for over four years. As a lead teacher, she works not only in her school but with teachers from other schools on a process called “mapping across the science curriculum” where the network of teachers shares topics and themes across schools. “We have written a booklet on this,” she says, “so that learning is not done in isolation.”

As a professional learning community, teachers are the architects in the classroom, using an apt image. In her district, there is a primary science subject group of teacher leaders formed across schools that meet every month read, discuss, and share insights with each other. This form of professional growth and development keeps the system current and updated.

Another consequence of such a networked learning community from such a cluster of schools is that ideas and methods in formal assessment and best practices are shared by teachers from different schools. What is new in the science of formative assessment? What works? How can assessment be improved? These are some of the questions such a PLC (professional learning community) can ask.

“With a PLC,” Mme. Kaur explained, “one can have a *whole school* approach to effective communication and management.”

Over the years, she has served as an advisor and mentor to groups of students participating in National Science competitions. These include the *Elementz* Science Project Competition and Exhibition and the Singapore Youth Science Fair. To prepare for these events, she and her students brainstorm ideas to decide on a project idea to investigate. Students are guided through the experimentation process and the compilation of data where they are required to record and present their investigation and findings. The whole process is documented in a report which is submitted to the event organizers. The entire process can be tedious but fulfilling, says Sarabjeet.



Differentiated instruction as a learning strategy

“I try to make use of a variety of teaching tools to keep my students engaged during lessons,” says Mme. Kaur. “This can range from using discrepant events to start a Science lesson or making use of newspaper articles to enable students to understand better the Science occurring in their daily lives.”

One learning and teaching strategy she uses is Differentiated Instruction. Differentiated Instruction (also known as Differentiated Learning) is a way of modifying the learning experience to meet students where they are. Because no two students learn the same way, differentiating a lesson makes a teacher’s curriculum more accessible to students whose abilities vary from their peers. It ensures that high-quality instruction reaches every student in the classroom.

There are four ways to differentiate instruction according to Tomlinson.

1. Content

Content can be differentiated by designing activities for groups of students that cover various levels of Bloom's Taxonomy going from lower-order thinking skills to higher-order thinking skills through six levels: Remembering, Understanding, Applying, Analyzing, Evaluating, and Creating.

Students who are unfamiliar with a lesson could be required to complete tasks on the lower levels: Remembering and understanding. Students with some mastery could be asked to apply and analyze the content, and students who have high levels of mastery could be asked to complete tasks in the areas of evaluating and creating.

- Examples of differentiating activities:
- Match vocabulary words to definitions.
- Read a passage of text and answer related questions.
- Think of a situation that happened to a character in the story and a different outcome.
- Differentiate fact from opinion in the story.
- Identify an author's position and provide evidence to support this viewpoint.
- Create a PowerPoint presentation summarizing the lesson.

2. Process

Each student has a preferred learning style, and successful differentiation includes delivering the material to each style: Visual, Auditory and Kinesthetic, and through words. This process-related method also addresses the fact that not all students require the same amount of support from the teacher, and students could choose to work in pairs, small groups, or individually. While some students may benefit

from one-on-one interaction with you or the classroom aide, others may be able to progress by themselves. Teachers can enhance student learning by offering support based on individual needs.

- Examples of differentiating the process:
- Provide textbooks for visual and word learners.
- Allow auditory learners to listen to audio books.
- Give kinesthetic learners the opportunity to complete an interactive assignment online.

3. Product

The product is what the student creates at the end of the lesson to demonstrate mastery of the content and process. This can be in the form of tests, projects, reports, or other activities that show mastery of an educational concept in a way the student prefers, based on learning style.

- Examples of differentiating the product:
- Learners read a book and write a book report.
- Visual learners create a graphic organizer of the story.
- Auditory learners give an oral report.
- Kinesthetic learners build a diorama illustrating the story.

4. Learning environment

The conditions for optimal learning include both physical and psychological elements. A flexible classroom layout is key, incorporating various types of furniture and arrangements to support both individual and group work. Psychologically speaking, teachers should use classroom management techniques that support a safe and supportive learning environment.

- Examples of differentiating the environment:
- Break some students into reading groups to discuss the assignment.
- Allow students to read individually if preferred.
- Create quiet spaces where there are no distractions.

“I have attempted to differentiate lessons based on my students’ readiness, interests and learning profiles,” says Mme. Kaur. “Though time-consuming to plan and challenging to carry out, the use of Differentiated Instruction has motivated my students to learn as they are excited to be able to select a learning task that is most appealing to them. It challenges them to tap into their creativity, knowledge and skills to demonstrate their conceptual understanding of the Science topic.”

As a concrete example, Mme. Kaur designed and conducted a series of differentiated Science lesson on Forces. The lessons are differentiated based on students’ readiness and interests. Students are given the choice to demonstrate their understanding of the concepts in different ways. They were given various tasks based on the different learning styles as shown below.



TYPE OF LEARNERS	TASK ASSIGNED
Visual 	<ul style="list-style-type: none"> Identify some objects in your home that make use of forces. Take photographs of them and explain how forces enable them work.
Auditory 	<ul style="list-style-type: none"> Research on some interesting facts on forces. Present these to your classmates. This will followed by a Q&A session.
Tactile 	<ul style="list-style-type: none"> Write a shortstory, comic or poem that has central theme of forces.
Kinesthetic 	<ul style="list-style-type: none"> Create a toy that makes use of one or more forces. Explain how the effects of forces make the toy work.

Learning of students is scaffolded so that each student can absorb as much as they can which they record in their Science notebooks. Students write down their assessments of lessons and experiments in “before-during-after” diagrams to explain what they learn. “It’s important to demonstrate ‘claim-evidence-reasoning’ way of thinking in science,” says Mme. Kaur.

In this way, students get excited and engaged in the lessons and as they work on their tasks. “Over a span of two lessons, students can showcase their work either through a presentation or exhibition. All students are given an Exit Ticket to comment on another student’s work and to give constructive feedback.”

What is learning?

Sitting at her desk, Mme. Kaur thought deeply about the question. “Learning”, she said, “is the acquisition of knowledge or skills. It can be achieved formally through lessons or informally through play or experience.”

“Children learn all the time – by watching, listening, writing and doing,” she explained. “I try to make my Science lessons as hands-on as possible. When this is not possible, I demonstrate the experiment or show the students a video instead.”

Mme. Kaur has students write a reflection journal to capture their thoughts. Students also record their observations, findings and questions in Science notebooks. When a Science video is shown, she asks students 1 or 2 questions to frame their thinking as they watch. After the video, she gives them some time to write down key take-aways and learnings in their Science notebooks or write down any further questions they may have.

Newspaper articles are referred to show students how Science figures in daily life and current events. Students read and discuss these articles or comment on a particular article in their journals to learn from phenomenon and events around them.

What do you do when children do not seem to be learning?

“I try to find out the reason why this is happening,” said Mme. Kaur smiling. “Is the content too difficult for them? Or could it have something to do with the way I am presenting the lesson? Or perhaps does the child have a learning issue that has not been surfaced? Or could the child be emotionally disturbed about some recent event?”

She usually speaks to the child first. Often, there is an underlying issue that the child may be able to share with her about. If this is not the case, she consults other teachers who teach the child. Or she speaks with parents to find out more information.

The measure of success as a teacher

“For me,” Mme. Kaur says quietly, “a successful teacher is one who always believes that all her students can learn and make progress even though they may not all be able to learn in the same way or at the same pace. Strangely enough, this belief and confidence that a teacher has of her students often becomes apparent to even her young charges. More

often than not, this belief and positivity from the teacher rubs off on the students and translates into a motivation for them to strive even harder.”

There have been low moments in her career despite having tried her best when she felt she had not delivered an effective lesson. It is at moments like these when she questioned herself as to what went wrong during the lesson.

Here, colleagues from her school were most supportive and encouraging. “A positive culture in the school is so important,” she said. “Beginning Teachers are assigned a buddy and a mentor so they can discuss such moments with other teachers. All teachers also have a Reporting Officer, whom they can share their concerns with.”

Over the years, there have been many instances where students who were initially unmotivated or low achieving went on to make considerable improvement and achieve success. “There are no words to describe the joy of seeing my students achieve this,” she says.

A role model

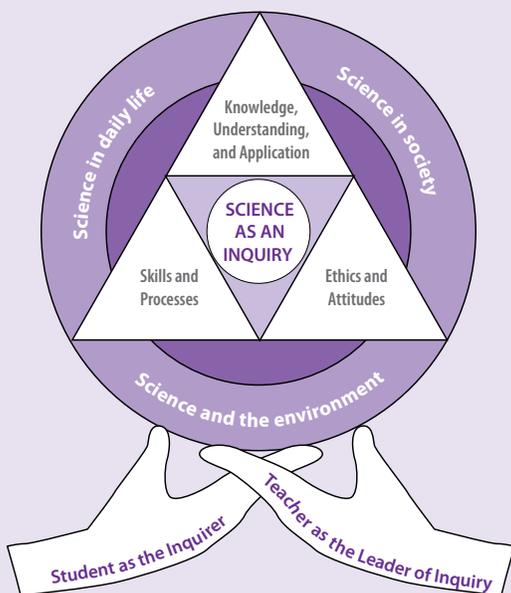
The desire to be a teacher came early on. Ever since she could recall, Mme. Kaur wanted to be a teacher. She spoke of childhood memories of role-playing with friends where she would insist on playing the teacher.

One role model was a Math teacher in secondary school who could explain such difficult concepts in simple terms. Ms. Yong was her Additional Mathematics teacher in Secondary 3 and 4, which leads to the ‘O’ Level examination. Initially, Mme. Kaur found some of the concepts rather confusing and was worried that she could not catch up. Ms. Yong reassured her that she would be fine. Though her English was not very fluent as she was from a Chinese-medium school, she explained the Math to her in such a patient and simplified manner making it easy for her to understand.

THE SCIENCE CURRICULUM IN PRIMARY AND LOWER SECONDARY GRADES IN SINGAPORE SCHOOLS

The Singapore Science Curriculum Framework (Exhibit 1) is structured around the spirit and practices of scientific inquiry and defines three integral domains essential to the practice of science: (1) Knowledge, Understanding, and Application; (2) Skills and processes; and (3) Ethics and attitudes. The curriculum enables students to appreciate the pursuit of science as meaningful and useful, as it is grounded in knowledge, issues, and questions that relate to the role of science in daily life, society, and the environment.

Exhibit 1: Singapore Science Curriculum Framework



The primary and lower secondary science syllabi are designed around themes that students can relate to in their everyday experiences and on commonly observed phenomena in nature.

The five themes at the primary level are diversity, cycles, energy, interactions, and systems. The lower secondary science curriculum builds on the themes at the primary level, with an additional theme on models, and continues the way science is taught at the primary level as a way of exploring and understanding the physical and natural world. Lower secondary students are introduced to scientific endeavor to develop their understanding of how science is practiced and applied, and are provided with further hands-on learning opportunities situated in everyday contexts. This allows students to make connections in science with their own lives and the environment. Exhibit 2 presents a summary of the topics to be learned under each theme by the end of Grade 8 (Secondary 2).

Exhibit 2: Science Themes and Topics

Primary Science Grades 3–6	Lower Secondary Science Grades 7–8
<p>Diversity</p> <ul style="list-style-type: none"> • Diversity of living and nonliving things (general characteristics and classification) • Diversity of materials <p>Cycles</p> <ul style="list-style-type: none"> • Cycles in plants and animals (life cycles and reproduction) • Cycles in matter and water <p>Energy</p> <ul style="list-style-type: none"> • Energy forms and uses (light, heat, and photosynthesis) • Energy conversion 	<ul style="list-style-type: none"> • Exploring diversity of matter by their physical properties • Exploring diversity of matter by its chemical composition • Exploring diversity of matter using separation techniques • Understanding diversity of living things

Primary Science Grades 3–6	Lower Secondary Science Grades 7–8
<p>Interactions</p> <ul style="list-style-type: none"> • Interaction of forces (magnets, frictional force, gravitational force, and force in springs) • Interaction within the environment 	<ul style="list-style-type: none"> • Interactions through the application of forces • Energy and work done • Transfer of sound energy through vibrations • Effects of heat and its transmission • Chemical changes • Interactions within ecosystems
<p>Models</p>	<ul style="list-style-type: none"> • Model of cells—the basic units of life • Model of matter—the particulate nature of matter • Model of matter —atoms and molecules • Ray model of light
<p>Systems</p> <ul style="list-style-type: none"> • Plant system (plant parts and functions, respiratory, and circulatory systems) • Human system (digestive system, respiratory, and circulatory systems) • Cell system • Electrical system 	<ul style="list-style-type: none"> • Transport system in living things • Human digestive system • Human sexual reproductive system • Electrical systems

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<https://resilienteducator.com/classroom-resources/examples-of-differentiated-instruction/>



9

Technology- Based Learning

Jirat Jamsawang

Thailand



*“Learning can happen anywhere
and at any time with technology.”*

The large hall was full of teachers attending the Show & Share session of Jirat Jamsawang at the Princess Maha Chakri Awards Forum. Teachers were grouped into teams of eight to work on kits that Ajarn Jirat distributed by table. Each kit was a box of parts – rubber bands, wooden sticks, clips, wires, pins, and assorted other materials. The objective was to assemble something “mechanical” that could propel itself across the room. No other instructions were given other than that. The task was to be figured out by the group and worked on for around 20 minutes or so before each group would show and explain its device.

Some groups dove into the activity as a group, talking animatedly amongst themselves going about the best way to proceed. One group began arguing on what to do spending most of the time debating. A third group stared blankly at the pieces, not sure how to proceed. Yet another group sat quietly as two members took charge and started assembling something without consulting the others. In this one session, one gets a glimpse of different approaches to the task at hand, some more efficient and effective than others. Ajarn Jirat would process this with the group in the debriefing with the teachers after the session. But for now, this was part of the discovery process that is central to technology-based learning.

This is an exercise in individual supervision, training, and development in a teaching method using what is known as the TPCK (Technological, Pedagogical, Content, Knowledge) Model. This he focuses on the spectrum of school curriculum, teaching model, learning management plan, and the use of mobile applications in the iPad or similar devices. “With these tools, it is easy to design and create lessons online using iTunes-U. Such activities allow teachers to use their combined knowledge to create online teaching and lesson plans,” he explained with a quick smile.

Ajarn Jirat has developed an innovation called “technology-based learning management” which is an innovative learning activity developed to empower teachers in all courses and levels to encourage students to acquire knowledge and skills. Students use the iPad or a similar device as a medium for content learning and exercises designed by teachers using iTunes-U or Google Classroom. Furthermore, teachers can rate students’ assignments through the iPad and alert students for work submission, and/or add additional content, such as documents, weblink lesson content, images, and videos. Students can also get an overview of the teaching and learning outlines in each subject of the course syllabus to prepare for their studies in advance. “With these flexibilities, students will be encouraged to follow-up their assignments or receiving feedback from teachers on a one-on-one basis.” He says. “In this way, students can combine technologies and knowledge to encourages their analytical skills by using online applications for self-development.”

As he walks around the hall, he stops to ask probing questions or offer bits of advice. “Learning can happen anywhere and at any time,” he says. “Through digital means, we can access knowledge even through our smartphones. We can use these to change the way we run our classrooms and how our students can learn. But to do so, we must also change the way we think and how we organize our lesson plans.”

Some learning approaches are now designed specifically for this new kind of technology, but most still use older approaches simply supported by it, allowing schools and classrooms across the world to reach new heights. Here are eight ways in which teachers can embrace technology-based learning approaches:¹

1. Problem-based learning

Shift teaching practices from teaching mostly facts and using assessment-based learning, to teaching practices that begin to move towards competency-based development.

This involves problem-solving, conceptual understanding, and communication. Whether addressed as problem, project, or inquiry-based approaches, the idea is to move towards student-centered designs that aim for a critical examination of problems.

“Problem-based learning prepares students to think creatively and find solutions to complex issues that will arise in the future,” says Ajarn Jirat. “Technology allows us to set issues in a more global context, and facilitates communication and collaboration on a larger, even on a worldwide scale.”

2. Student-created content

Many technology-based approaches increasingly offer opportunities for students to create content that can be shared within the classroom, throughout the school, across different schools, and on on-line platforms and learning management systems (LMS).

The best way to ensure that the content created using online technology tools is understood by learners is to have the content reinforced by teachers with students recapping or summarizing what they learned. One strategy is for students to teach each other in group settings. “Not only will students learn the acquired material through practice,” says Ajarn Jirat, “but they may provide different viewpoints on what they learned.”

3. Collaborative learning

Collaborative learning is enabled through technological communication systems, as well as through LMS systems and multi-modal learning environments. Learning approaches that are collaborative go beyond the classroom walls, which aids in catering to different learner preferences and strengthens areas such as intercultural understanding. “Imagine this,” Ajarn Jirat says, “If this is what is possible now, just think what the near future can likely provide. A class of students could study together in virtual reality. This could facilitate collaboration with students in other countries across the globe which would broaden their

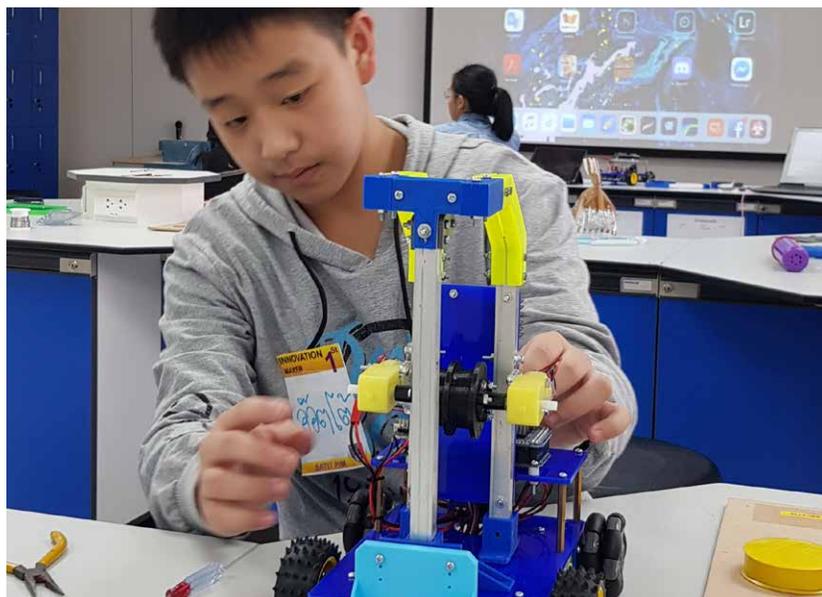
worldview, raise awareness, motivate students to explore and explain new cultures, different habits, and global themes.”

4. Competency-based education

Competency-based education is an alternative approach that aims to focus on effective learning, rather than time-consuming learning.

Students can use either e-learning platforms, digital lectures, or face-to-face teaching to learn effectively. This approach moves away from an education system designed around the teaching time limitations of bricks-and-mortar classrooms towards a more individual and content-laden approach.

The quality of the work is maintained while the time factor is taken out of the equation and replaced by open learning outcomes. This is a move towards meeting the way new generation of work and matches a student’s readiness to learn with their preparedness to take in the information. The focus of learning becomes the mastery of subject knowledge.



5. Active learning

Active learning or hands-on learning means that students learn from experience as well as from each other by trying out different learning methods, supporting each other's ideas, and most importantly, allowing space to think and act for themselves.

A teacher's role is to be a guide rather than an active player. "My role as a teacher," says Ajarn Jirat, "is to assist when needed, to support when required, and to be to give inputs when students need these or request for assistance. When students can suggest technology learning tools for themselves, this adds to the fun of learning and becomes an important part of the learning process."

6. Blended learning

Blended learning is the combination of online digital and traditional classroom methods. Teachers and students must be physically present, but the content and student work are divided into parts to be completed digitally on computers, tablets, and the like. This multi-modal learning approach can also include learning at home using digital tools and platforms, with assignments like watching a video or completing an online activity. When combined, these learning experiences complement and supplement each other.

7. Flipped learning

Flipped learning reverses the traditional teaching roles of teacher and student putting student learning first and increasing their role in the learning process. This could start with discovery rather than lecture. Students' homework might be to research a topic at home using digital information and micro-learning techniques, such as watching short videos on a specific topic at home. The content of this homework is then explored and discussed in more detail in the classroom.

In short, the information is retrieved at home instead of being taught in the classroom, and the application of the information learned becomes the task in school the next day.

8. Integrated subjects

“When children create their own materials to use in their learning,” smiles Ajarn Jirat, “they instinctively relate it to other subjects they take up in school and even outside. Aspects from different subjects can be combined in different technology tools. For example, using machine learning to practice a foreign language.”

Motivation

When Ajarn Jirat was a classroom teacher, he would ask himself what the best way would be to teach students how to think, how to be smart about solutions, how to be good citizens, and have a promising career. When he moved on to train teachers after retirement, he used the same mindset to promote and develop good teachers at every level continuously and systematically.

“I developed a *Grow Together* activity for teachers where once a week for an hour each session, teachers were engaged in knowledge exchange,” he said. “Teachers would share classroom research integration,



teen psychology, and other topics in workshops to motivate each other. In this activity, teachers were also allowed to express their feelings and opinions towards the school regarding problems that arose during work. For example, teachers may feel that they have too much free time or even disagreement with specific regulations. These issues can be discussed, or opinions exchanged so that solutions to common problems between the administration and teachers can be reached.”

Personal Journey

“It was because of a lack of funding that I chose physical education as a course of study,” Ajarn Jirat said. “Physical education allowed me to study and work at the same time to support myself.” However, in 1985, after six years as a P.E. teacher, he had the opportunity to participate in a seminar called “Students in the 20th Century” while on an exchange program in Japan. It was there that was first introduced to technology and to see what a pivotal role it could place in a country’s development.

“In Thailand,” he observed, “even at the university level, one hardly found that computers were being used for learning purposes. At the time, there was a saying: *Whoever controls technology, that person controls the economy*. I told myself that promoting technology amongst students and developing technology-related knowledge would positively affect both students and the country in the future.”

With this epiphany, Ajarn Jirat started to take education technology courses in various universities, finally completing a computer course from the Asian Institute of Technology (AIT) to pursue his dreams. In the beginning, he taught both physical education and computer subjects. After the workload increased, he switched to teaching only computer-related subjects.

Ajarn Jirat had started to achieve his success when the method of teaching computers began to change. The change was from teaching students to learn about computers to using computers in learning and then expanding the results to be used for learning in all subjects. As a result, it has become the essence of technology-based learning activities and an essential part of today’s online education. With the emerging

technology that keeps changing all the time, schools that successfully teach online are those that have promoted the use of technology in learning before other schools. Hence, Ajarn Jirat has been invited to help organize learning activities using technology in several educational institutions.

The start as a teacher

The feeling of wanting to become a teacher arose from secondary school in *Mathayom* Three² in Suankularb Wittayalai School in Bangkok. At that time, Ajarn Jirat was learning the martial art of specialized sword fighting from the Buddhaiswan Sword Fighting Institute. This he brought to his school to share with friends and juniors. He set up a martial arts club in sword and club fighting at the said school. During *Mathayom* Four, he worked his way to become a sword-fighting instructor at the Sword Fighting Institute, teaching sword-fighting arts in two private schools.

After finishing secondary education, he took the entrance examination to study at Srinakharinwirot University where he received a Bachelor degree, major in Physical Education.

As a child, Ajarn Jirat was homeless due to family separation just after finishing primary school. While studying at the *Mathayom* level, he had to support himself by teaching sword-fighting. This caused frequent absences from class. Despite being warned of expulsion, he was given opportunities from teachers for both study and scholarship. After graduation from *Mathayom*, he was awarded a scholarship from the Ministry of Education, the “Bhumibol Scholarship”.

In 2017, Ajarn Jirat retired as a full-time expert level teacher at the Suankularb Wittayalai Nonthaburi School after 18 years. Before that, he was a senior professional level teacher at the Khoksamrong Wittaya

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2 *Mathayom Suksa* is the secondary school level in Thailand split into lower and higher secondary each having three years. Lower secondary is compulsory; upper secondary is optional. *Mathayom* Three would align with Grade 9.

School in Lopburi province in Thailand. Retirement did not mean slowing down, however. He immediately took on a position of Advisor for Computer Technology, Internet, Robotics and Artificial Intelligence (AI) to several private schools and public institutions. Among these were:

- Bureau of Technology for Teaching and Learning of the Office of the Basic Education Commission
- The Privy Council Chambers to organized curriculum and training for scholarship students
- Office of Health Promotion Foundation (SSO)
- Thai Teachers Robot Association
- Vajiravudh Wittayalai School of Innovation
- Panjapiwat Institute of Management Demonstration School
- Satis Bilingual School of Rangsit University
- Suankularb Wittayalai School to upgrade the teachers' quality in 11 schools within the Suankubarb school network

As an advisor to Vajiravudh College and the Panyapiwat Institute of Management Demonstration School, his work has been to promote students' competencies, knowledge, and skills – both hard and soft skills -- required by the educational institutions. “I have transformed my role,” Ajarn Jirat says, “from teaching students to coaching teachers to increase their capabilities in teaching.”

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Read more at:

<https://www.skillsyouneed.com/rhubarb/technology-based-learning-approaches.html#:~:text=%20Here%20are%20eight%20ways%20in%20which%20we,3%20Collaborative%20learning%0AThanks%20to%20technology%20we...%20More%20>

PREPARING YOUTH FOR THE WORLD OF WORK FOR A BRIGHTER ECONOMIC FUTURE:

The key findings from the Youth Employability Scoping Study

Dilshat Zhussupova

Thailand Development Research Institute

August 2020

Fewer Thai youth have jobs than a decade ago, according to a Youth Employability Scoping Study Report by Thailand Development Research Institute, commissioned by UNICEF with technical support from the ILO. In the face of an ageing population and disruptive technology, not to mention a pandemic, Thailand will need to equip all young people with skills to participate productively in tomorrow's economy.

The report maps the employability landscape for youth aged 15-24 in Thailand. Through conversations with businesses and youth themselves, the study aims to fill in the gaps in our understanding of the labor market challenges facing youth, particularly disadvantaged youth, and the key role public-private partnerships can play in linking all youth to the world of work.

“The report findings come at a critical time when the unprecedented economic impact of COVID-19 is expected to hit young people harder, who are at a higher risk of unemployment and precarious employment than adults. In addition to building a more inclusive social protection system for all, ensuring that young people can gain access to decent jobs will help ensure their access to some form of social protection, now more important than ever,” said Beena Kuttiparambil, Chief of Adolescent Development and Participation at UNICEF Thailand.

At 4.9 per cent, the youth unemployment rate is seven times higher compared to the total population. Some young people are simply staying longer at school more than ever before, but many are leaving education behind for low-skilled jobs, many of which were the first to go during the COVID-19 pandemic and will become redundant as technology transforms the job landscape for 3.45 million agricultural, manufacturing, wholesale and retail workers in Thailand.

Even though most youth are in the education system, some drop out of school and are at risk of not entering the labor market. In 2017, more than 4,038 youth dropped out of school. (Office of Basic Education Commission, OBEC)

With Thai students falling far behind the OECD average in reading, mathematics, and science and much less likely to value lifelong learning than their ASEAN counterparts, school curriculums need upgrading to prepare school graduates for the changing demands of the labor market.

“Formal and non-formal educational organizations must stay on top of promoting relevant, quality education for building 21st century skills. The earlier our start in empowering youth, especially the most disadvantaged, the more readily they can meet tomorrow’s challenges of shouldering the growing costs of an ageing population and driving economic recovery,” said Kuttiparambil.

Facing unequal starting points in life and discrimination, some young people are less likely to be employed than others. The number of unemployed female youth in Thailand remains almost unchanged and stubbornly higher compared to male youth.

Dealing with education mismatch, university graduates are much less likely to find jobs than those with primary education, with a 17.22 per cent and 2.43 per cent unemployment rate, respectively. This may be because both highly skilled jobs and qualified young workers are in short supply. More than 300,000 graduates of 2020 will likely be jobless this year, unable to find an entry-level job in the midst of a recession.

Above all, 1.3 million Thai youth lack the skill set and opportunities to even get their foot in the door of the job market and are not in employment, education, or training (NEET). This number, of which women make up two-thirds, grows every year. Short on career guidance at school and family support at home, those with learning disabilities, from poor households and in early marriages are at the greatest risk of remaining out of classrooms and work.

The majority of NEETs in 2018 were young women (66.8%), the majority of whom are household workers or unpaid family labor. In 2018, the estimated number of NEETs is 1,266,397 persons.

“If young people are given a seat at the decision-making table with employers, their perspectives and joint solutions could get at the heart of the root causes of youth unemployment. Why are employers not hiring skilled graduates and young women? What kind of job opportunities can employers create and train young people for? How can these opportunities reach young people with disabilities or young families, and what kind of support will they need?” said Makiko Matsumoto, ILO Employment Specialist.

When youth are able to voice their specific needs and aspirations, the private sector will be better informed in their hiring decisions and creating internship and on-the-job training opportunities for them.

There is no specific law or working group that addresses youth and their needs distinctly, leaving them more vulnerable to the COVID-19 economic shock.

“COVID-19 has dealt young people a tough hand, but it is also an opportunity to trigger systemic reform in education and the labor market that can respond to future crises,” said Matsumoto. “To support a clear strategic path to employability for all young people in Thailand, UNICEF and the ILO will jointly work toward achieving the priorities outlined in Thailand’s Decent Work Country Programme.”

The area of developing skills among youth is just as ripe for collaboration. Social enterprises' initiatives for upskilling, reskilling, career counselling and entrepreneurship training remain limited in scale and budget, and the Royal Thai government's iSEE platform, which can identify disadvantaged students individually, is still in the works. Beyond operating solely within the Equitable Education Fund, the government can partner with the private sector and NGOs and share its data with the public to unlock the immense potential of all young people and transform them into the workers of tomorrow.

<https://www.unicef.org/thailand/stories/preparing-youth-world-work-brighter-economic-future>



10

Experiential Learning

Leopoldina Joana Guterres

Timor-Leste



“Students learn by doing.”

The early morning sun rose over the mountains of Baguia in Baucau, Timor-Leste. It was cool and crisp but would soon heat up. Leopoldina Joana Guterres – Mana Leo, to her community – was getting ready to greet her students coming to school.

Mana Leo’s the head of a local system of nine schools called the Ensino Basico Central Catolico Sao Jose Baguia. This is a level of basic education from Grade One to Grade Nine where the students are from 6 to 12 years of age. The Ensino Basico also offers kindergarten in two of the schools.

The town of Baguia is one of the district centers north east of Dili, the capital of the country. Though only 200 kilometers from Dili, it takes 7 to 8 hours of non-stop travel by vehicle to get to Baguia, a reflection of the state of the roads in this part of the country.

The schools Mana Leo heads is a private education system supported by the government. The Ensino Basico Central Catolic Sao Jose Baguia is a Catholic School affiliated with the Church which is recognized by the government. In its legal status, there is a relationship between government and the local community where the latter is responsible for the management and operation of the school, and the former will provide some resources. As a private school, the Ensino can charge some fees to parents.

The Ensino Basico Central Catolico Sao Jose Baguia-Baucau, Timor Leste is in fact a cluster of nine schools all attached to a mother school, but which are in different parts of the district. The larger schools are called *Filial*. Two of the schools are kindergartens. The 9 schools are:

- a) Ensino Basico Central Catolico Sao Jose (EBC Sao Jose Baguia) – the mother school

- b) Ensino Basico Filial Buibela (EBF Buibela)
- c) Ensino Basico Filial Afaloikai (EBF Afaloikai)
- d) Ensino Basico Filial Haeconi (EBF Haeconi)
- e) Ensino Basico Filial Afaguia (EBF Afaguia)
- f) Ensino Basico Filial Bubuha (EBF Bubuha)
- g) Ensino Basico Filial Sao Jose Baguia
- h) Kindergarten Afaloikai
- i) Kindergarten Haeconi

The families of the children that attend the Ensino Basico Catholic schools are all subsistence farmers. The families are simple folk who work hard. But with poor or no farm-to-market roads, there are few established markets for their produce. There are also no irrigation systems and it is difficult to irrigate crops during the dry season. Agriculture production is therefore low and barely enough for subsistence. There is little surplus to bring to the market.

The nine schools have a total enrolment of 1,112 students, of which 588 are girls (53%). Most of the students are able to complete the required number of years to graduate but there are a few that drop out. Some of these live a long distance from school walking from 2 to 3 hours on foot each way. Other drop out for financial reasons.

When students drop out, they lose a year of schooling. Mana Leo, as head of the school and the community, tries to figure out solutions to these problems. If boarding accommodations can be worked out, some students stay with families living near their school. Mana Leo, herself, has seen her extended family grow even larger taking. In the last school year, she had 16 boarders in her home on top of herself and her three children. All told, in the last few years since she married and was later widowed, there have been around 60 young people who have boarded with her at one time or another.

For other families having difficulty paying school fees, a program of financial support was set up. A finance cooperative was formed to help members save money for education purposes. The financial literacy and savings promotion do not only involve parents, however; the cooperative is also open to young boys and girls to promote a savings culture at an early age.

Apart from serving as overall school director of the nine schools, Mana Leo also has the responsibility as the Portuguese language subject teacher in the main school where she spends 4 days a week. On the two other days of the week, she spends it with the school filliates. Each week, she visits two schools spending a day in each.

Despite the Ensino Basico Central Catolico Sao Jose Baguia being a private school set up by the Catholic Church, its teachers are employed by the government. There are also volunteer teachers who are paid a monthly salary from school fees.

Learning by doing

To prepare for the new school year, Mana Leo assembles all her teachers. They use the curriculum set by the Ministry of Education to plan the education calendar for the year. This calendar is divided into terms which the teachers then flesh out into lessons. Lessons are prepared weekly with didactic materials according to the teaching plans.

“The innovation we have developed in our schools is project-based learning,” explained Mana Leo. “Everything we do, we do as projects. We set up the libraries and the school gardens. We have an education week training where the teachers and students from different schools can learn together and share experiences with each other.”

For the library, she has sourced books from the government, from friends and through book donations. What she calls the “living library” are the school gardens where students can grow food utilizing these gardens for the practice and observation of natural science, mathematics,

arts, and environmental science. The produce of these gardens goes into the school feeding program.

She continued, “Learning can happen at any time and anywhere. We can learn from other people through observation, by experimentation, and through reflection of the experiences. For us to know how a child is learning something or anything, we have to observe his or her daily actions and practices.”

Learning is an active activity for Mana Leo. She knows if a child is not learning when, he or she is not paying attention to the instructions of the teacher or when they do things differently from other friends in the group or in the class, or when the child shows uncertainty in their faces in the course of the class activity.

“In the classroom, when children do not seem to be learning, I do three things: First, I will call them by name; Second, I will approach them and give more detailed explanation with some examples in our life; and Third, I will pay more attention to this student.”

Even as the schools deliver educational services, Mana Leo is constantly building or renovating its infrastructure using these as learning opportunities for the students and the community. Over the past five years, this was done to expand the schools’ infrastructure or rebuild that which was destroyed by seasonal typhoons that ravage this part of the archipelago yearly.

Schools damaged by typhoons is a priority. In 2018, a super-typhoon destroyed the roofs of two schools. The community was mobilized to undertake renovations to address this.

The provision of water in the schools and the community has taken on a sense of urgency given the drought conditions during the extended dry season. But water is also important for sanitation and hygiene. WASH (water, sanitation and hygiene) and toilet installation

was introduced to the school community as early as 2005.¹ Being a rural area, most people had little regard for toilets, water and sanitation in their homes, much less in the schools. Mana Leo began to educate her community on the importance of WASH.

“We try to encourage our people that WASH is also a principal part in our life regarding health and hygiene,” she said. “So, we worked to organize it in our community and schools and finally it has influenced community life.” Today, there are 14 toilets for the schools and community built by friends who organized themselves into a group called the “Friends of Baguia” with support from the Rotary Club and the WITHONESEED program. Hand washing training was provided to students and parents to promote health and prevent sickness.

WASH is a good example of a theory of change based where inputs (i.e. water) and planned activities (i.e. through-put) can lead to a chain of changes in behavior and practice (i.e. outputs) eventually leading to a desired outcome (i.e. good health). Water tanks were built for the schools and communities with local labor and fund-raising from the community. With water availability came toilet installation for the schools and communities. With that, the schools could begin WASH training for the students. With WASH in schools and at home, community health began to improve with better sanitation and hygiene. “This is project-based learning,” Mana Leo proclaimed with a broad smile, something that comes easily.

Around each of the schools are community agroforestry projects where children, parents and others plant trees and care for these as cooperatives. Water conservation has become critical throughout the country given an extended drought period. The schools, parents and community teach environmental protection with an active tree-growing and agro-forestry program. Since 2009, over two hundred thousand trees (200.000) trees have been planted to recover the deforested area around Baguia principally on private land. To support this project, the school has

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1 WASH, also known as Watsan), is an acronym for “water, sanitation and hygiene”, a key public health issue in international development and the focus of Sustainable Development Goal 6 (SDG 6).

set up a program for tourist trekkers. This program is in partnership with a program called WITHONESEED. In Tetum, the Timorese official language, this program is called “Ho Musan Idi” (HMI).

The program focuses on afforestation and reforestation education. It engages the community in economic participation (they can earn from forest stewardship) and open education for climate change. Local, national, regional, and international partnerships have been formed such as the Forest Expedition where the community and students share their knowledge of forest food and herbal medicine with tourist trekkers.

These projects also became topics in the teaching of science. To further motivate students to pursue science, a science competition was created between schools around Baguia. This involves the private Catholic schools as well as the public and community schools. Sponsors were approached to provide prizes such as dictionaries and books to winners.

Other projects of the schools are (1) furniture for the schools and community, (2) building community centers in each community, (3) local food preservation, (4) a solar lighting program in rural area who have no access to the electricity grid, and (4) a finance cooperative.

“Apart from all these projects,” says Mana Leo, “I also try to encourage my people to do composting which we can use as organic fertilizer. We have also started using coconut shells instead polybags to eliminate plastic waste in the community.”

In each of the schools, Mana Leo’s team of teachers have set up and manage water filters to provide potable water for drinking. This is important in an area that has suffered drought and lack of water for years. During big celebrations in the school, in the Church, and on national holidays, the schools provide drinks for thousands of people from these water filters. In this way, they do not have to bring water in disposable plastic bottles which become an environmental problem later. This program started 5 years ago, continues to expand into villages and other schools in the area.

“To motivate our people for this,” Mana Leo explains, “I have to explain the 5 benefit of this action. It is (1) To save the environment and keep it clean; (2) Save money for other important things (with funds circulating in the local economy); (3) Build initiative of young people to create new products and not just buy and buy from shops; (4) To value local sources and local products; and, (5) To implement the Encyclical document of Pope Francis I about *Laudato Si*.”²

The 9 schools she heads do not have electricity in place so that is her next big project for each school using solar energy. The project will involve all teachers, parents, and the community. “The involvement of teachers, parents and community is the most important thing in any project,” says Mana Leo. “Everyone must feel that the project is theirs so that they will take responsibility for it, look after it, and organize and maintain it whenever and wherever.”

Students learn by doing. In the construction of the school toilets, students – together with their parents – contribute rocks and labor to build the foundation of the construction. By working together, students learn along the way and parents are not levied additional fees.

Everyday topics are used in all lesson plans. “When I teach language,” says Mana Leo, “I use daily actions or everyday things to set up the sentences. To explain idioms or types of speech, I would say ‘local food has more nutrients than instant food’ or ‘vegetables from the garden are fresher than vegetables from the supermarket’.”

In teaching civic education, she uses examples in daily actions. “If you are sitting in a ceremony and an old woman is standing without a chair,” she says, “you offer her your chair and stand or organize another chair for yourself.” Simple lessons in courtesy used to teach language.

Mana Leo’s beginnings

Mana Leo was born in 1968, the third child in a family of seven children. Her parents were subsistence farmers. She, herself, has six children – two boys and four girls – but was widowed early when her

husband passed away in 2012. Since then, her household has grown when she opened her home to relatives and boarders.

“I have 20 people in my house today,” she said. “Most of these people are students. Some of them live a long distance from up in the mountain to come to school. Some are orphans and others have parents who cannot answer for their education.”

She smiled as she explained further, “I have these young people with me because me and my late husband, we have a principal thinking that if we help these young people now, when he or she gets to have a good future, they will help more young people in the future.”

Mana Leo was born during the Portuguese era which was a difficult period before the territory received its independence from Portugal only to be annexed by Indonesia. She grew up in during the time of the Indonesian takeover. The country under Indonesia was suppressed and the people held back. There was famine and no access to a good level education. To get from Bagaia to the municipal capital of Baucau 76 kilometers away, one had to walk. There were very few vehicles. Such was the isolation of this subsistence farming community.

The municipal capital was the nearest place to get a Grade 7 education and there was a strict curfew. Mana Leo became a lodger in Baucau for three years. It was the same situation for her husband explaining the reason why they decided to open their home and look after other young people as much as they could.

To put order to this large number of people in the family, rules were established and set. The eldest loves the youngest and the youngest respects the eldest. “All of us try to share in all home activities between each other,” she smiles, “so that everyone tries to learn and to share the knowledge and experiences with each other.”

Thinking back on her life, she remembers the time in 2004 when she was gravely ill for over three months. Her health had deteriorated to a point where she could not walk nor get out of bed. She was just at home. As her sickness worsened, every morning seeing every member of her family go off to work, she would pray: “Jesus, if you provide me

with good health, when I recover from this sickness, I will do any kind of work for You whenever and wherever people need me to do it. I will not refuse You.”

Such is Mana Leo’s faith and the reason why she is forever ready at any moment to help somebody in need and on every opportunity.

FACTS ABOUT EDUCATION IN TIMOR-LESTE

By Jordan Miller

Timor-Leste is a Southeastern Asian country occupying the east side of the island, Timor. The small country is home to a little more than 1 million people. Unfortunately, the literacy rate is only 67.5 percent. Improving the quality of education has been a struggle, but there has been significant progress in the past 18 years. Here are eight facts about education in Timor-Leste.

1. By 2001, a year before gaining its independence, 90 percent of schools had been destroyed due to the violence and destruction that ensued from Indonesia’s rule over the country. These destroyed schools had once employed 6,000 teachers and educated 240,000 children. After Timor-Leste gained its independence, the country had to completely rebuild these institutions from the ground up.
2. Because of the focus on rebuilding education, Timor-Leste was able to make quick progress. Between 2002 and 2014, enrollments went from 240,000 students enrolled to 364,000. The number of teachers doubled during this time, going from 6,000 to 12,000. Primary education enrollment increased from 68 percent in 2005 to 85 percent in 2008.
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5. Despite the increase in school enrollment, many young and adult Timorese lack the basic education needed to fully participate in society and contribute to the economy. Unfortunately, 27 percent of the adult population is semi-literate, and 37 percent is completely illiterate.
6. In 2010, the World Bank set up its Second Chance Education project to boost the number of out-of-school youth and adults who have access to an equivalency program to receive the education they missed. The Second Chance Education project ran from December 2010 to December 2015, supporting the Ministry of Education in Timor-Leste. Its major goals included training staff members, developing school curriculums, and improving existing adult literacy programs. The same year, the government aimed to accelerate the completion of basic education for uneducated students due to lack of availability, while trying to build the education system back up. Government expenditure on education had increased from 13 percent in 2004 to 25 percent in 2010.
7. The quality of education has room for improvement. About 70 percent of students in grade one could not read a single written word in Portuguese and the native Tetum language, the two most commonly spoken languages in the country. This, however, decreased to 40 percent by the end of grade two. Still, by the end of their second year of schooling, 40 percent of kids are still illiterate.
8. Many teachers have only completed secondary school themselves. But with UNICEF supporting the Ministry of Education, teachers are trained in order to improve the quality of education. Teachers who have already gone through training have noticed that with their new direction toward teaching, students are more engaged and more conversation between instructor and student.

9. There is a large gap between access to education between rural and urban areas. For urban residents, the enrolment rate for pre-secondary and secondary levels is 100 percent, while in rural areas, it is only 60 percent. Likewise, the literacy rate for youth ages 15-24 in urban sections of the country is 94.3 percent, but 78.5 in rural locations. The Education Management Information System works toward future teacher redistribution. This will place more teachers in rural areas in hopes of increasing the quality of education and bridging the gap between rural and urban.
10. CARE's Lafaek Education project provided "Lafaek Prima," educational magazines written in Tetum, for 85,276 students in grades three and four. This builds off of what these students already learned in grades one and two; the content prepared in collaboration with teachers, educational staff, and the government, ensures that the magazine is suitable for their students.
11. Education in Timor-Leste has greatly improved since it gained its independence in 2002. The government has stepped in, as well as other organizations, to prioritize educational needs across the country. In the long term, this will assist the Timorese in climbing out of poverty.

<https://borgenproject.org/8-facts-about-education-in-timor-leste/>

Blog December 7, 2019





11

Learning Through Language

Phan Thi Nu

Vietnam



“Learning is a process where students acquire things from their living and learning environment.”

“Success as a teacher is when I can see a student’s eagerness to learn and the results and progress they have made over time,” says Mrs. Phan Thi Nu sitting in her office which is covered with different mementos from various trips. “Furthermore,” she continues, “it is when students find their own way in life, growing up to be their own person.”

Old students often come back to Le Quy Don Gifted High School in Danang City in central Vietnam bringing with them stories of where they have gone after graduation. They tell stories of their lives at present and relive good memories of the old days in the school.

Le Quy Don Gifted High School is what is known as a gifted high school for children. It is a senior high school with 3 grade levels: Grades 10, 11 and 12. Mrs. Nu teaches English-12. Students come from a mixed community. All of them, regardless of their family background, have to pass a 2-round selection process to enter the school. They have to meet some requirements of their junior secondary school performance to qualify for the entrance examination to this school. This entrance exam is much more difficult than the examination to all other high schools in the city.

Le Quy Don is a government school located in the city. Most students come from officer or worker families where parents work for government offices, private companies or have their own businesses. Students use the local language in daily life though English is used in English classes and in cultural exchange activities and is increasing in usage as Vietnam modernizes and foreign investment in the country grows.

The enrolment of students in the school is about 900 of which 60% are girls. Most students live in the city with around 60 students coming from Quang Nam, a nearby province. These students can stay in a boarding facility in the school.

Preparing for a new school year

To prepare for the new school year, Mrs. Nu looks at three inputs: Curriculum, educational materials, and the incoming class of students. On the curriculum, she carefully studies the syllabus set by the the Ministry of Education and Training (MOET) and the Department of Education and Training (DOET). The MOET curriculum is important for students because it sets the requirements for the entrance examination to universities. These requirements are updated annually.

The contents of the textbook are carefully reviewed, and reference books related to the contents of the course are identified.

To find out the interests of the students on the English subject she teaches, she looks at the achievement and evaluation of incoming students to determine how well they have done in the subject as well as their difficulties in learning English. Diagnostic assessment is done a number of ways. “I often do this in many ways: Having a friendly talk with students or asking them to write short essays at the beginning of a school-year,” she says. “I read them very carefully in order to better understand my students’ problems generally and in particular.”

Over the years, the study of English has been a major spike in interest among students as Vietnam opens its economy to the global market. The learning of English has become a priority among students especially in the final year of a high school when they sit for the GCSE Examinations and university entrance examinations.

Besides, they want to be self-confident in communication in English whenever possible; eager to join school extra-curriculum activities or cultural exchange activities frequently organized in her school and abroad.

The level of English proficiency of her students vary. To help her students, Mrs. Nu tries to put these matters into her lesson plans throughout the school year. Because of their different levels of English capabilities, some find it difficult, others easy. Some find speaking English difficult because of their poor pronunciation and vocabulary or grammatical use, some for their writing skill, others their listening skill. What is important to Mrs. Nu is to keep students motivated in this final year of a highschool.

Preparing lesson plans

Once the syllabus has been prepared for the year, Mrs. Nu prepares lesson plans by the week. For each lesson plan, she applies different techniques to keep students interested and able understood and remember the lesson of the day.

What teaching techniques has she found particularly useful a teacher? Depending on the aims and requirements of each lesson, different techniques are applied. Teaching main ideas and analysis will help students focus on the main points making a lesson much clearer and easier to understand. This can be done via various activities and techniques. “If the students want to learn a language naturally,” says Mrs. Nu, “they have to imitate native speakers as much as they can in using the language. Learning by heart is, therefore, also very useful.”

To become proficient in a language, one must practice and use it. In this regard, Mrs. Nu follows a four-way process to develop language proficiency: Read, Listen, Write, and Speak. To help add content and practice, she has been able to gain access to a resource such as the British Council where she and her colleagues have been able to participate in workshops.

“I get together with colleagues in my school to learn something new and interesting from their teaching,” says Mrs. Nu. For years, she has also sought the advice of a university professor and colleague, and from her own her experiences to add content and perspective to the courses she teaches in senior high school.

A typical school week

Mrs. Nu teaches 5 classes of English or around 150 students in all. She meets each class of 30 students three times each week. Students come to see her in her office for advice frequently.

Teaching is not her only responsibility. She is Head of the International Relations Office of the school. This is the office that plans and organizes all cultural exchange activities of the school with schools from other countries as well as works with a lot of foreign universities coming to visit Vietnam and her school each year. It is because of this that students come to see her for information about foreign universities -- tuition fees, scholarship information, courses, living expenses, other kinds of information.

Over the past twelve years, Mrs. Nu also coached the school team that has participated in the ASEAN Quiz Competitions in Vietnam and in the region every two years. Thrice, her school won the competition in Vietnam; once they won the award in the ASEAN region.



Visiting Vietnamese Heroic Mother Monument

Teaching techniques

The teaching of language requires developing an imagination for speech and writing that starts with thinking and imagining. To capture this Mrs. Nu uses some devices and innovations including teaching aids (handouts, magnet stickers, pictures, power points) and techniques that encourage students to participate in the lessons actively. Games, songs, role-playing, interviews, quick tests of memory, role-playing as a teacher, and book reports are among such techniques and devices. All of those techniques and activities have to be related to the topics or the contents of the lessons and carried out in pairwork and groupwork, though sometimes individually.

Topics covered during the year vary, many of which are related to students' realities or current events: Home Life, Cultural Diversity, Ways of Socializing, School Education System, Higher Education, Future Jobs, Books, Sports and Games, Air Pollution, Endangered Species, Women in Society, International Organizations, The Association of Southeast Asian Nations (ASEAN).

Bonus marks are given to the students or groups of students who do well in the activities. "Bad marks in debt" are given to those who have not prepared lessons at home or did a bad job in class. This debt can be repaid in a future class.

What is learning?

"Learning is getting what you see, what you experience, study or are taught." says Mrs. Nu. "Learning implies the acquisition of knowledge and life skills through the lessons and the activities they participate in. Learning is a process where students acquire a lot of things from their living and learning environment in which their teachers play an important role and have a great influence on them."

She continues, "We know when a child is learning something by observing their concentration, their interest and their reaction or attitudes

to the things they are taught. If they are interested in something, they are eager to pay much attention and participate in the classroom activities with joy and excitement. They do want to show themselves in finding out something new, something similar to or different from what they have got in their minds.”

Learning through cultural exchange

In studying the English, students need to acquire not only a good foundation in the language but also the culture of the people and the countries that are native to the language. “All of these things are very helpful to them in the era of integration,” says Mrs. Nu “They will recognize that what they have learnt help them break the barriers to enter the world.”

When teaching a language, Mrs. Nu wants her students to learn something beyond the language itself. Here she refers to English-speaking countries, notably Britain and others (the USA, Singapore, New Zealand, Australia), and sometimes to non-English speaking countries that the lessons are related to.

Students are encouraged to read about these countries. She gives them additional information besides what is covered in textbooks. Depending on the topic of the day, she will give them additional readings. For example, with the topic “Ways of Socializing”, she introduces social habits from those countries. Or with “Home Life”, she talks about the ambitions of the young in those countries. On “School Education Systems” or “Higher Education”, she wants them to understand the A/AS Level in UK schools, Foundation Programs in other countries, or even the concept of a “gap year” when graduating or graduated students take a year off from continuing their formal studies to do some other activity for the year including apprenticeships, work or travel. These activities are viewed as alternative forms of learning.

In this way, students can begin to find out the similarities and differences between Vietnam and other countries in many aspects. One idea she expounds on constantly: One can learn from other cultures and pick up good practices. “This will help them broaden their knowledge and avoid cultural shocks as well as easily adapt to a new environment and culture when they study abroad for their higher education in the future,” she says. “A person may be small in a big world, but knowing a foreign language is a tool that makes the world so much bigger.”

As a teacher of English and Head of International Relations of the school, Mrs. Nu has been a bridge between the school and a lot of other education institutes, both in Vietnam and abroad. She helped my students get access to different cultures of the world and scholarship opportunities to study in universities in the region and in the world.

Cultural exchanges with international friends enhance mutual understanding, improves their English, and raises community awareness. “To be able to integrate into the world, language barriers need removing,” says Mrs. Nu. “Through these activities of international relations, the children have raised their awareness of learning English with good motivation.”

Graduates of her school have gone on to study in universities in the region - Singapore, France, Japan, New Zealand, Australia, Hongkong, Great Britain, and in international universities in Vietnam. In the course of the year, exchange programs with other schools in ASEAN and beyond are carried out.



Learning English “Culture From Different Countries”

From a family of teachers

Mrs. Nu was born into a family of teachers. Her great grandfather, grandfather and father were teachers. When she was a child, she was brought up in a pedagogical environment.

“It can be said that my father was the person who had great influence on me,” she said. “I saw the ways that he taught his students with great enthusiasm and the love he gave his students. Later, when his students grew up, whoever they were, a lot of them came back to visit him. At that time, I began to understand that his knowledge, his love, his passion and his responsibility had contributed to their growth. Early on, I wanted to be a teacher like him. It was then that I decided to follow him and become a teacher.”

EDUCATION IN VIETNAM

Education in Vietnam is a state-run system of public and private education run by the Ministry of Education and Training. It is divided into five levels: preschool, primary school, secondary school, high school, and higher education. Formal education consists of twelve years of education basic. Basic education consists of five years of primary education, four years of intermediate education, and three years of secondary education. The majority of basic education students are enrolled on a half-day basis. The main education goal in Vietnam is “improving people’s general knowledge, training quality human resources, and nurturing and fostering talent.”

Vietnam is known for its rigorous curriculum that is deemed as competitive for students. Secondary education is one of the most significant social issues in the country: designated schools known as “High schools for the gifted” (Trường trung học phổ thông chuyên) are regarded as prestigious and often demand high entrance examination results. Higher education is also a fundamental cornerstone in Vietnamese society. Entrance to university is determined through the National High School Graduation Examination, whose results will be considered for evaluation. The higher the score is, the more prestigious the institution will be. Failure to attend university often leads to social stigma, as those who could not pass the Graduation Examination would be looked down upon by members of society.

With one of the highest GDP growth rates in Asia, Vietnam is attempting to improve its education system. In 2012, estimated national budget for education was 6.3%. In the last decade, Vietnamese public reception of the country’s education system has been mixed. Citizens have been critical of the rigorous curriculum, which has led to serious social issues including depression, anxiety, and even increasing suicide rates. There have been comments from the public that schools should opt for a more flexible studying program, with less emphasis on paper tests and more focus on life skills development. In response to public opinion, the Ministry of Education and Training has come up with resolutions to reform the education system, which were met with both positive and negative feedback, leaving education reform still a controversial topic to date.

<https://asiasociety.org/global-cities-education-network/education-vietnam>

STRENGTHS, CHALLENGES, AND OPPORTUNITIES

By Vanessa Shadoian-Gersing. A version of this article also appeared on *Education Week*.

In its first participation in Program for International Student Assessment (PISA) in 2012, Vietnam scored higher than the Organization for Economic Co-operation and Development (OECD) average and outperformed many developed economies, including the US.

Demonstrated commitment to education

Vietnam's commitment to education is visible in sizeable public and private investments and rising attainment levels. The belief that a healthy mix of education and hard work is the key to success is palpable on the streets of Ho Chi Minh City (and other cities) where children are seemingly always en route to school or supplemental classes.

Improvements in school and teacher quality

In recent years, Vietnam has expanded enrollment while defining and enforcing minimum quality standards for school facilities countrywide. Teacher quality also matters, and Vietnam has laid a solid foundation by professionalizing its teaching force and establishing standards around teacher content knowledge, skills, and dispositions. The value that Vietnamese culture places on teachers surely helps.

Outwards orientation to keep the system evolving

Vietnam eagerly takes inspiration from abroad. Its experts regularly study curriculum reform in high-performing countries like Korea and Singapore. The country also participates in several initiatives focused on developing innovative teaching methods (such as the Escuela Nueva pilot adapted from Colombia) and deeper learning skills (including these ASEAN seminars). In addition, new K-12 and higher education reforms incorporate lessons learned from previous reforms.

Challenges Remain

Out-of-school children

Nearly 37 percent of Vietnamese children are not enrolled in upper secondary school. Since PISA assesses learning of 15-year-olds in school, scores were likely inflated by the underrepresentation of students from low-income and disadvantaged groups. A major challenge is to reduce early school dropout and related inequities while maintaining quality.

Changing skill needs

As Vietnam's economy evolves, good basic numeracy and literacy skills will no longer suffice. The labor market increasingly demands a mix of high-quality cognitive, behavioral, and technical skills—skills employers say are rare among graduates.

The Path Ahead: Streamlined Curriculum for the 21st Century

The next step for Vietnam is to provide better quality schooling that fosters higher-order cognitive and behavioral skills (such as creative and critical thinking) for more young people. Accordingly, the Ministry of Education and Training (MOET) is working with K–12 educators on an ambitious reform to design coherent, focused, high-quality curricular standards that optimize learning and promote the competencies needed to master content and apply knowledge.

Upgrading Instructional Practice for Effective Implementation

While curricular reform is an important step, the resulting change in classroom instruction is what matters. Ensuring policies and practices are aligned across the education system will require close attention to how the new curriculum is taught (and assessed).

Better pedagogical strategies

Although Vietnamese policymakers have promoted better teaching and active learning methods since the 1990s, lecture-style, rote learning remains the dominant practice. On my school visits, teacher-centered approaches were the norm, and students seemed conditioned to receive knowledge passively. Active, student-centered approaches were rare (the classroom pictured above was a notable exception). Not surprisingly, an analysis of PISA findings implies Vietnamese students lack confidence in applying learning to practice.

Vietnamese researchers, teachers, and students share similar perspectives and explanations for these gaps. A recent focus group and a UNESCO youth opinion poll confirm the persistence of one-way lecturing that emphasizes theory and relies heavily on textbooks. Though many teachers grasp the importance of active learning for student engagement and learning outcomes, they say they lack materials to support their use of such approaches. To help bridge these gaps, policymakers plan to ensure a comprehensive set of aligned textbooks and teaching materials is developed to support the transition to the new curriculum.

Stakeholder understanding and engagement

Classroom practices can change only if stakeholders understand and believe in new curricular standards and pedagogical models. Yet, the focus and implications of previous reforms were not made sufficiently clear to educators, parents, and students. Having learned from experience, MOET intends to conduct consultation and outreach campaigns to foster public support for the revised curriculum. MOET also plans curriculum piloting as well as online and in-person training to foster teacher understanding and engagement.

Strengthening capacity at the point of delivery

For teachers accustomed to traditional practices, changing teaching methods and fostering new skills can be a complex endeavor. Developing higher-order skills requires teachers to have a deeper mastery of their subjects and a wider pedagogical repertoire than what is needed for knowledge transmission.

Examples from other countries show that meeting new demands on teachers' skills and expertise at scale requires robust and sustained forms of professional learning. There is much to improve: the current professional development model is limited and needs to be upgraded to a model in which local institutions' capacities are enhanced to provide more tailored content, year-round, with new teaching methods.

Building instructional capacity also requires meaningful, ongoing support. Establishing appropriate support structures is vital for enabling teachers and principals to implement new pedagogical models in schools. In addition, creating mechanisms for professional learning and collaboration among teachers and clusters of schools would allow educators to learn from one another and continually refine their practices.

References and Further Reading

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<https://www.k12academics.com/Education%20Worldwide/education-vietnam>



12

LEARNING: How teachers can help children become better learners

Juan Miguel Luz



What is learning?

Learning is the process of acquiring new knowledge and skills. By stating it in this way, the focus is on the learner and what happens to him or her (Robinson, 2015). This is in contrast to other terms we use that associated with Learning where the focus is on the system.

- **Education** – the organized program of learning with focus on structure and processes (curriculum, content, pedagogy);
- **Training** – a type of education that is focused on learning specific skills; and,
- **School** – any community of people coming together to learn with each other.

The importance of starting early & continuously

Learning is a process that starts early in life and if nurtured well can be life-long. While formal schooling starts, for the most part, when children are 5 to 6 years of age (Kindergarten, Grade 1), the literature now recognizes that learning starts at birth. Infants begin to stimuli around them, learning to recognize and respond to sounds, sensations, people, and faces with whom they come in contact. Their very young brains begin absorbing what their senses feel and do, learning to react in certain ways. Their minds begin to recognize patterns. They learn how to form sounds which later become distinct words, phrases, and eventually, sentences.

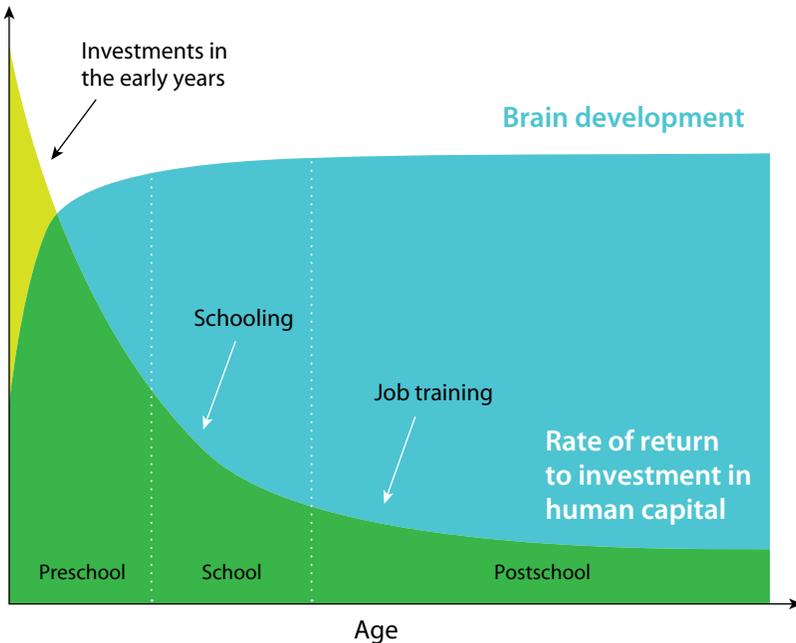
In recognition of this, the Education for All (EFA) agenda expanded the scope of education from primary education to pre-primary and even earlier to early childhood development. Children were brought to day care centers and ECD programs as young as 2-3 years to begin learning social skills, good habits in health and hygiene, and to play with

other children of their age. Children who had this kind of head-start early on, it was found, tended to learn to read and write at a very young age.

Thus, the importance of early childhood development and the formative years of primary education. Research on human brain development showed how much goes on in the first five years of life. This is the period in a child's life when ensuring proper care and development (i.e. good health and nutrition, a safe home and community environment, a chance to interact with other children socially) will pay off in terms of a better life. In education, the returns on investment in early childhood development are the highest among age groups and this shows up in terms of learning and productivity.

From the beginning of EFA, there was the view of education being expansive over time bringing more children into the education system as a major goal. In this regard, EFA was moving towards success with more children worldwide, especially girls, having access to schools and attending classes. But when what should be measured became a central question during the mid-term reviews of EFA, the question was: Were children Learning? Were they finishing with desired achievement levels? While bringing children into the education system was important, how were they performing in school? What differences were being realized by their participation?

Figure 1 Investments in high-quality programs during children’s early years pay off



Source: WDR 2018 team, based on Carneiro, Cunha and Heckman (2003); Martin (2012)

The learning crisis: who gets left behind or left out?

The problem that was recognized in the EFA assessments was that despite the increase in the number of students attending schools worldwide, students were not learning at level. This meant that despite the heavy investments made by policymakers, certain groups of children were in fact being left behind despite attending school. The number and percentage of children varied from country to country with some

developing countries having large numbers of children failing to make the grade, falling out of the schooling system, or staying in but not necessarily learning.

Are children reading, writing, and doing arithmetic at level by Grade 2? Are they developing language and communication skills early in life? Are they learning to read, write and do arithmetic (the 3Rs) in the early primary years? Data from many countries including more developed ones reveal large percentages of students not mastering these foundational competencies.

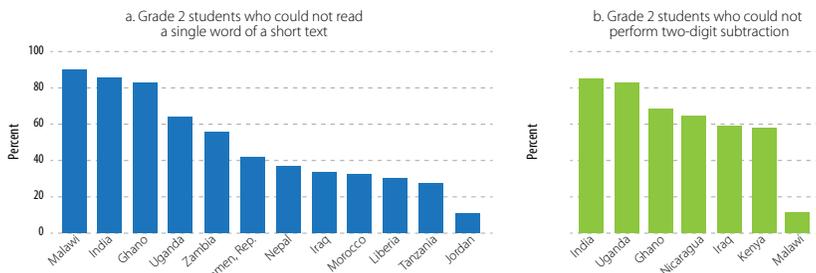
The percentage of Grade 2 students who could not read a single word in a short text was as high as over 80% in countries like Malawi, India, and Ghana. Students who could not perform two-digit subtraction at Grade 2 was highest in India, Uganda, and Ghana. These cases may be the highest worldwide, but in many countries in the developing world, the percentages showed high pluralities of students failing to meet these benchmarks.

If students learn little from year to year in the early going (i.e. lower primary years), this “learning deficit” can and will compound in the later years when more complex learning material is taken up.

The percentage of primary school students who pass a minimum proficiency threshold is often low. The figure per country is brought down by those not able to go to school at all or who drop out along the way. Girls versus Boys tend to be more contextual.

Figure 2 Shortfalls in learning start early

Percentage of grade 2 students who could not perform simply reading or math tasks, selected countries

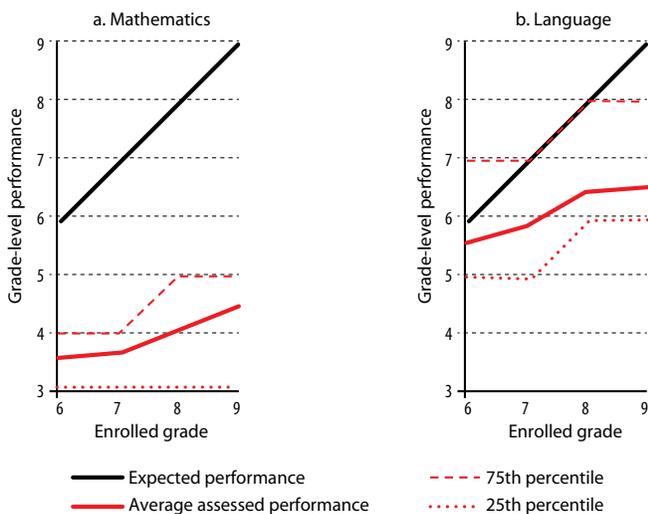


Source: WDR 2018 team, using reading and mathematics data for Kenya and Uganda from Uwezo. Annual Assessment Report, 2015 (<http://www.uwezo.net/>); reading and mathematics data for rural India from ASER Centre (2017); reading data for all countries from U.S. Agency for International Development (USAID). Early Grade Reading Barometer, 2017, accessed May 30, 2017 (<http://www.earlygradereadingbarometer.org/>); and mathematics data for all other countries from USAID/RTI Early Grade Mathematics Assessment intervention report, 2012-15 (<http://shared.rti.org/sub-topic/early-grade-math-assessment-egma>). Data at http://bit.do/WDR2018-Fig_0-1.

Note: These data typically pertain to selected regions in the countries and are not necessarily nationally representative. Data for India pertain to rural areas.

Figure 3 Students often learn little from year to year, and early learning deficits are magnified over time

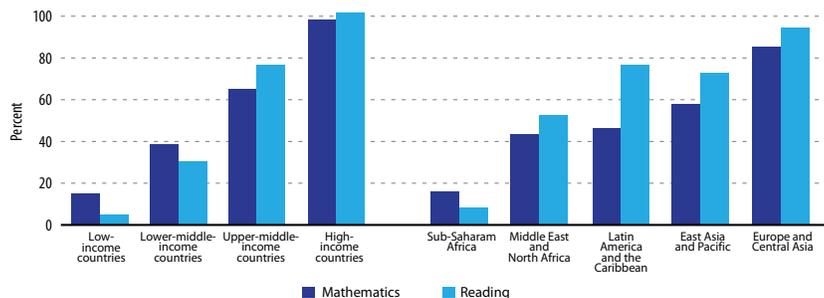
Assessed grade-level performance of students relative to enrolled grade, New Delhi, India (2015)



Source: WDR 2018 team, using data from Muralidharan, Singh, and Ganimian (2016). Data at http://bit.do/WDR2018-Fif_0-4.

Figure 4 The percentage of primary school students who pass a minimum proficiency threshold is often low

Median percentage of students in late primary school who score above a minimum proficiency level on a learning assessment, by income group and region



Source: WDR 2018 team, using “A Global Data Set on Education Quality” (2017), made available to the team by Nadir Altinok, Noam Angrist, and Harry Anthony Patrinos. Data at http://bit.do/WDR2018-Fif_0-5.

Note: Bars show the unweighted cross-country median within country grouping. Regional averages exclude high-income countries. India and China are among the countries excluded for lack of data. Minimum proficiency in mathematics is benchmarked to the Trends in International Mathematics and Science Study (TIMSS) assessment and in reading to the Progress in International Reading Literacy Study (PIRLS) assessment. Minimum proficiency in mathematics means that students have some basic mathematical knowledge such as adding or subtracting whole numbers, recognizing familiar geometric shapes, and reading simple graphs and tables (Mullis and others 2016). Minimum proficiency in reading means that students can locate and retrieve explicitly stated detail when reading literary texts and can locate and reproduce explicitly stated information from the beginning of information texts (Mullis and others 2012).

Schooled but not learning. Why so?

The Learning crisis is often hidden. The education system has so many requirements that it can take class time away from learning. In this case, class time might not be learning time but rather “busy” or activity time. Hence, the Low-Learning trap: Bringing children to school may be *necessary* but it is not *sufficient* for learning to happen.

Learning is not about filling the minds of students with knowledge content. That is the old, outdated paradigm of schooling and education. Learning is about developing a capacity within students so that they can drive their own learning. It transforms them from being recipients of information and knowledge to being agents in themselves, seeking, developing, and internalizing what they learn and what to

explore and discover. It flips the paradigm from passive to active learner, from the subject of schooling to the driver of learning, from recipient of instructions in the classroom to an active participant in deciding what to learn. “Learning to Learn” becomes the mantra. With such capacity to learn, self-learning can be a life-long endeavor extending well beyond the formal schooling years.

But why is there a Learning crisis?

A crisis occurs when despite all the best laid plans, effort, intentions, and resources, the results still fall short. Worse, when education people do not recognize the problem and continue to do what they have always done, more of the same input will only lead to the same output and outcome. Albert Einstein said it best: “Insanity is doing the same thing over and over again and expecting different results.” What are we doing that needs to be changed if learning is to improve among children?

For one, teachers tend to focus on fast learners because they are easier to deal with especially in school systems with large class sizes. But what about slower learners or students who have difficulty with certain concepts?

Teachers are also a product of their training. They are comfortable teaching what they know best and will consciously or subconsciously stay away from what they know less about. This comprises learning for their students. Instead of making education expansive, it becomes limited to what a teacher knows.

Teachers should ask themselves as teachers: Does every activity in class have a learning outcome? Are classroom activities a busy activity or a learning activity?

By being conscious of these realities and by asking themselves hard questions, teachers can begin to do something about the learning crisis in their classrooms and in their schools.

Why does learning not happen?

There are four factors that can hinder Learning (WB Development Report 2018):

1. Unprepared learners
2. Unskilled, unmotivated teachers
3. School inputs not aligned with teaching, learning objectives
4. School management not aligned with teaching, learning objectives

Factor 1: Unprepared learners

Are very young children coming to school ready to learn?

This is a function of three considerations: (a) The level of health and nutrition of a child; (b) parental involvement; and, (c) the social and physical environment within the school and community.

The above three must be present in adequate doses to have a positive effect on the learning of especially young children. How school systems and societies deal with deprivation, or starting (and continuing) deficiencies, differences, and inequalities will tell how successful they can be in helping children be more prepared for learning.

Children who are undernourished or malnourished will have biological disadvantages that will affect learning. Studies show that stunted children in the first two years of life have lower cognitive test scores, delayed enrolment, higher absenteeism, and more class (grade) repetition as compared to healthier children.

For children entering the school system, there might be structural barriers that get in the way of their participation or getting prepared to

learn. These may include hidden fees which parents might not be able to afford. Or children might face disability barriers or may be socially excluded. These barriers may in fact deprive children of the chance to get ready for schooling and learning.

For older kids, are they prepared with the proper foundational tools to handle more advanced subject matter? Are they able to read and write at level? By the time they enter Grade 4 can they do the four operations of arithmetic with competence? By Grade 4, can they follow verbal and written instructions? This combination of Reading, Writing, Arithmetic, and the ability to follow written and verbal instructions is what we call *Functional Literacy*, an important indicator of capability. Grade 4 students should be functionally literate if they are learning at level.

In Timor-Leste, the Teacher Julio Ximenes Madeira (PMCA Awardee, 2015, Timor-Leste) organized a Child-friendly school following the UNICEF model with the aim of getting children ready for learning in the early years. The child-friendly school model is based on the premise that schools can and should operate in the best interests of the child. Education environments should be safe, healthy, and protective. They should be staffed with teachers, equipped with adequate resources, and offering conditions appropriate for learning. (UNICEF; learningportal.iiep.unesco.org).

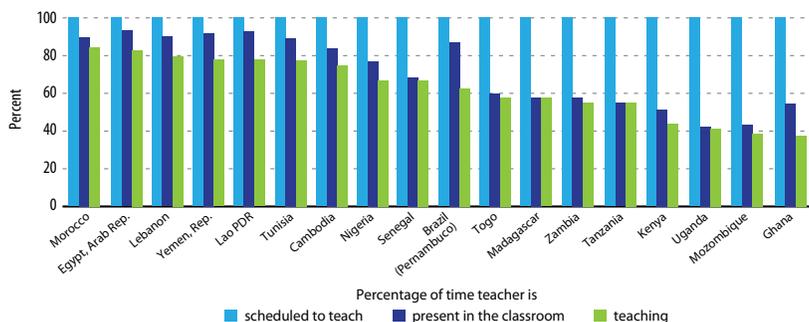
Factor 2: Unskilled, unmotivated teachers

How much of a difference do great teachers make versus ineffective teachers? In the United States, studies have shown that the differences between good teachers and average teachers can be significant. Good teachers see their students doing up to 1.5 grade levels better than expected. This compares to average to poor teachers whose students barely do 0.5 of grade level expectations (Hanukshek 1992; Rockoff 2004 as cited in World Development Report 2018).

In Time-on-Task Analysis, in many schools, too much classroom time is spent on non-learning activity or busy time. The worst case involves absentee teachers – teachers who are on the teaching staff but do not report for work occasionally or regularly for one reason or the other. Substitute teachers may come in to supervise the children, but many do so without a proper learning plan or even instructions on how to proceed. In such situations, children are left to their own devices. Time that should be for learning activity might in fact be wasted.

Figure 5 A lot of official teaching time is lost

Percentage of time officially allocated to schooling that a teacher is scheduled to teach, is present in the classrooms, and is actually teaching



Source: WDR 2018 team, using data from Abadzi (2009): Brazil (Pernambuco state), Ghana, Morocco, and Tunisia; Benveniste, Marshall, and Araujo (2008): Cambodia; Benveniste, Maeshall, and Santibañez (2007); Lao People’s Democratic; Millot and Lane (2002): Arab Republic of Egypt. Lebanon, and Republic of Yemen; World Bank (2016a): Madagascar; World Bank (2016b): Zambia; World Bank’s Service Delicery Indicators, 2012–2013 (<http://www.worldbank.org/sdi>): Kenya, Mozambique, Nigeria, Senegal, Tanzania, Togo, and Uganda. Data at http://bit.do/WDR2018-Fig_3-10

Note: For Brazil, Cambodia, Ghana, Lao PDR, Senegal, Tanzania, and Tunisia, data include public schools. For all other countries, data include both public and private schools.

Factor 3: Mis-aligned school inputs

In many instances specially in large public-school systems, logistics and supply chain inputs fail to reach schools on time or at all. These may include textbooks and reading books, science materials, chalk.

To be clear, inputs do not equate to learning unless there is a well-thought out plan on how these inputs can contribute to learning outcomes. Education technology without lesson guides are not necessarily useful if teachers are unsure how to use these effectively.

Factor 4: Detached school management

When school leadership is not aligned with what should be happening in the classroom, the misalignment can undermine the best-laid plans. School heads focused on compliance with bureaucratic requirements versus teachers focused on teaching outcomes could mean a difference in objectives. This compliance with directives rather than on learning goals effort can lead to frustration on the part of teachers and learners and even to a breakdown in the learning process.

For teachers not wanting to face off with school heads and administrators, the path of least resistance is to base evaluation on classroom inputs rather than on learning outcomes. This results in mis-aligned incentives for students with learning outcomes compromised.

How can we respond to the learning crisis?

Teachers can respond in three ways through (a) Assessment; (b) Action; and (c) Alignment.

Assessment

How robust (healthy) is the process of learning in your school? Can we measure to see if learning is happening? Can we identify students falling behind and why?

A teacher, especially those with very large class sizes, should make sure they are keeping track of all students and not just those who perform well or those who attract the attention of teachers. Are there a few in a class who might stragglers or slow learners but who are quiet and go unnoticed? Do these students have hidden handicaps or learning difficulties? Or is this a function of the way the lessons are being delivered (i.e. a problem of pedagogy) or poor organization of a lesson)?

The importance of measuring student learning is an important part of the learning process. Where are students falling behind or having difficulty? This is not just about moving forward in terms of learning; it is also about moving at level. Are children reading at the level expected for their grade? Is their numerical competence (numeracy) at the appropriate grade level?

Measurement can make the learning gaps visible: The gap between where children should be at (grade-wise, age-wise) versus where they are at. Measurement can identify the least-learned competencies or skills in a given curriculum.

There are different assessment mechanisms to get different views of how students are learning. Learning assessments gather information on what learners know and what they can do with what they have learnt, as well as offer critical information on the process and context that enable learning, and all those that may hinder the learning process (UNESCO). It is diagnostic when the evaluation is done before a period to determine what are the strengths, weaknesses, knowledge, and skills of a student before instruction. This allows a teacher to adjust the curriculum to meet the needs of students. Formal assessments are typically standardized tests that are scored and used to compare students and given as a grade

or score. Examples of formal assessments are quizzes and tests. Other ways of assessing how students perform or learn is through assignments and projects where the evaluation is based on a set of rubrics that can evaluate and rate learning.

International assessments are tests done by international bodies that allow for comparisons across countries of student learning and competency.

PISA (Programme for International Student Assessment) is a worldwide study by the Organisation for Economic Co-operation and Development member and non-member nation intended to evaluate educational systems by measuring 15-year old students' scholastic performance in mathematics, science and reading. It is administered to a randomly selected sample of students in a participating country every third year (www.oecd.org/pisa).

TIMSS (Trends in International Mathematics and Science Study) is a large-scale assessment designed to inform education policy and practice by providing an international perspective on teaching and learning in mathematics and science. TIMSS is administered every third year (www.acer.org).

PIRLS (Progress in International Reading Literacy Study) is an international comparative assessment that measures student learning in reading. Since 2001, it has been administered every 5 years (www.nces.ed.gov).

In India, there is a large-scale field-based diagnostic face-to-face assessment done by tens of thousands of trained volunteers called ASER (Annual Status of Education Report). This is an annual survey that aims to provide reliable estimates of children's enrolment and basic learning levels for each district and state in India. ASER is conducted every year since 2005 in all rural districts of India (www.asercentre.org).

Measurement and assessment, monitoring and evaluation have become an important part of what education systems are all about. In the MDG period, the mantra was: Measure what we treasure [sustainable

data for sustainable development]. What gets measured gets done.¹

Evidence-based decision-making is built on real data. Among the questions asked was a seminal one: What matters most in education? In the beginning years, emphasis was on participation and enrolment of children in school. Over time, the question of learning was raised. Asking the right questions and getting the right metrics became critical.

What should the key metrics be? How and why did these metrics change over time? What would be the measures of success for an education system? What Learning metrics matter?

For starters, reading with comprehension, at grade level, is important. This includes developing a broad enough vocabulary to be conversant and literate. Likewise, numeracy is critical for students so that they have a facility with the four operations of addition, subtraction, multiplication, and division by the end of at least Grade 3. The combination of literacy and numeracy plus the ability to follow written and oral instructions is the definition of functional literacy. Conceptually, the combination of these skills is developed as a set by Grade 4 which then becomes an important benchmark for keeping children in school up through this level and beyond.

Assessments need not be graded. It is possible to distinguish “no competence” from low competency and high competency provided there are rubrics or a scoring guide.

Assessment is important because children who cannot read, write, or do arithmetic by some stage of primary education (i.e. by end-Grade 2) will have difficulty or will struggle to keep up, much less, catch up. This will have a compounding effect on learning in later years.

Action

The key is to act on evidence. If more and more children are coming to school all over the world, but are not learning at level, teachers

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1 The Millennium Development Goals Report 2015, pp. 10-13.

need to focus on gaps between what should be learned versus what is actually learned.

How can identified gaps be best addressed?

One way is for teachers to ask themselves: Is this a remediation problem that can this be addressed with more hands-on practice? Or are there foundational shortcomings that should be addressed more holistically? Is this a problem of one or a few students? Or is this the case cross classes of students? Are students not interested in the subject matter or not being motivated in what schools are offering? Are teachers focusing on factual learning only as opposed to exploring a subject more deeply?

The answers to these questions will trigger different responses. Remediation will mean review and practice. More foundational shortcomings will require starting over or at an earlier period to build certain foundations in learning. Lack of interest is behavioral, psychological or reflect how different individuals learn. The last item speaks to a body of work now known as multiple intelligences.

Human intelligence is not the same as academic work (Robinson, 2015). Academic work tends to be focused on the following:

- (1) Propositional knowledge
- + (2) Theory
- + (3) Reading, writing, math

With academic work, we get caught up testing how much a student knows.

But human intelligence is more than academic work. Human Intelligence takes *Propositional Knowledge* (the What) and uses it in an applied way to create *Procedural Knowledge* (How) (Robinson, 2015).

An expansion of this idea is the work of Howard Gardner (and others) on *Multiple Intelligences* that advocates for a world that subscribes to the diversity of being human. The Gardner model recognizes different intelligences that need to be recognized and nurtured if individual children are to reach their full potential. The Gardner model identifies 8 intelligences: Spatial, Naturalist, Bodily-Kinesthetic, Musical, Logical-Mathematical, Interpersonal, Intra-personal, and Linguistic. A person can have and should develop multiple intelligences.

Alignment

Grade levels are organized to be progressive. In basic education, think of building blocks where at the foundation, certain structural materials and methods are used to build a foundation. The foundation is intended to be solid and sturdy, able to carry a heavy weight load. The materials and methods are different for the higher levels of construction. Think of building a cathedral or a temple starting with a strong foundation before building walls, pillars, arches, the ceiling and roof, and spires going up.



Using this analogy, how do we prepare learners to learn?

On the demand-side from the point of view of learners, we should work to develop and encourage curiosity, an ability to ask good questions, a willingness to explore things, and a habit of working on tasks to completion. Learning-by-doing, pioneered by the American philosopher-educator John Dewey, at the University of Chicago Laboratory School, was a hands-on approach to learning where students interacted with their environment in order to adapt and learn.

The most important objective is to develop a love for learning. Do kids want to go to school every day? Are they wanting to start working on tasks in the classroom as soon as they get in or are they waiting to be told what to do? This gives an idea of how excited children are about their learning process. Teachers might want to take the temperature of their classrooms from time to time: What is the classroom energy like? High, low, or none?

For young learners: Investing in early childhood is critical. This includes good nutrition and play as a way to develop the self. But even play must have learning objectives to be more useful.

For older kids, remedial education to prepare learners for higher levels, if necessary.

For all kids, time should be set aside in every week on a planned basis for students to work on subject-based projects around their own interests. A person's interests are great motivators for action (i.e. Learning). Can these be channeled into learning activities around a specific subject or set of subjects?

The role of teachers in learning

If the learning process is to be “flipped” with students taking greater responsibility for their own learner, teachers should take on a more facilitative role (Christensen 2010). Motivated teachers invest more of themselves in preparing lesson plans and learning activities because facilitating learning is less direct than lecturing to students and takes more effort. Facilitating cedes control to students where outcomes might go in different, even, unintended directions. Managing through that “messy playground” is actually a part of the learning process so long as there is a way to process the experience to some closure.

An increasing “good or best practice”: Innovative teachers allow students to “learn by doing”. This might be in the form of project-based learning (PBL), project portfolios, more experimentation, multi-media creation, student presentations, writing, student creations and productions.

Question: Are teachers prepared to allow students to take more charge of their learning (i.e. “Flip the classroom)?

In Thailand, Chalernporn Pongteerawan (PMCA Awardee, Thailand, 2015) used different learning frameworks such as the Ishikawa Fishbone Model to teach his students how to think and analyze real-world problems. He showcased his methods at a show-and-share session called “Putting knowledge into practice in the classroom”. In his class, students identify real-world problems and then go about studying what contributes to that problem and what could be possible solutions.

In Myanmar, Teacher Yee Mon Soe (PMCA Awardee, Myanmar, 2015) created a student-centered classroom where her students take turns leading discussions.

The use of education technology can help make learning an exciting endeavor. What kinds of education technologies can help the teaching-learning connection?

One way is through the use of IT (information technology) and social media around projects with clear learning objectives. Zainuddin Bin Zakaria (PMCA Awardee, Malaysia, 2015) developed ICT for the classroom. One of his many projects was an online collaboration between students in his class in Malaysia with a partner school in Colombia where students worked for weeks online putting together a 200-word Spanish-English-Bahasa Melayu dictionary.

Hands-on kits to build things around specific subject matter can be exciting ways to learn. For older students, linking classroom activity to skills training is particularly compelling especially when these can be linked to career options and life interests. Herwin Hamid (PMCA Awardee Indonesia, 2015) used homegrown ingenuity to make science come alive in the classroom. In his show-and-share session, he showed other teachers how to set up an electrical system to light up a small bulb using paper as a conductor of electricity (albeit a weak one). This was done to demonstrate that teachers do not have to have fancy laboratory materials but can use simple, easy to access, everyday materials for experiments.

School management & governance

School governance is the organization and management of financial, human, and other resources to attain the short-term objectives and long-term goals of the school (and by extension, the learning process).

In this 21st century environment, a good part of the ecosystem is the use of information technology to better manage classroom learning. Are there ways to expand the learning space through internet connectivity or digital content? An investment in connectivity will expand what schools can offer and with it, broaden the worldview of students and teachers.

This can be done by building partnerships within schools (i.e. within and across grade levels), between and across schools (Inter-school), and within and across school divisions (Intra-division).

Incentives and/or policy can be provided to encourage innovation. In Vietnam, Madame Tran Thi Thuy Dung (PMCA Awardee, Vietnam, 2015) used the Vietnam *Escuela Nueva* Program in Lao Cai City to raise the quality of learning by focusing on improving schools using an ecosystem approach. The *Escuela Nueva* model, first originated in Colombia, is organized to allow students to learn independently at their own pace. Students work in small groups facing each other on assigned tasks. Much of the learning takes place through discussions among students and through guided independent work. Students who have mastered a subject help those who are still learning it. The teacher offers advice and guidance as needed (Kamenetz, Drummond and Yanigun, 2016).

Tips for schools and school systems

The World Bank Development Report of 2018 outlined six tips for improving Learning in schools and among children.

(1) Measure and identify gaps in learning

- What might be least learned competencies, concepts, skills?
- Why so?

(2) Track progress (by class, by individual student)

- Through each year (at given periods)
- Year-on-year
- Who are at risk? Why so?

(3) Test students regularly

- Suggest assessments, even at home (though difficult and time-consuming)
- Case: ASER (India) provides a robust, if not difficult way, to assess students-at-risk.

(4) Balanced evaluation

- Single assessments do not give a full picture. Try different types of assessment and triangulate.

(5) Good course design is not enough

- Facilitate learning through action (i.e. projects, presentations).

(6) Benchmark to get ideas for improvement

- From other best practice
- From international tests

A closing thought

Learning is not the same as Education or Schooling. A child may be in school, but they might not be learning for one reason or another. This might be structural (i.e. there are barriers to learning that exclude certain children such as social norms that make it difficult for girls in some societies from attending school), circumstantial (i.e. certain circumstances might get in the way of learning such as natural disasters), pedagogic (i.e. some of the cases listed earlier), or accidental (i.e. unintended). Whatever it is, it should be addressed and not ignored.

Learning is a mindset that needs to be developed, a disposition to cultivate, and a habit to be nurtured.

Benjamin Franklin, a Founding Father of the United States of America who was a polymath², writer, political philosopher, scientist, inventor, and statesman, said it best when he wrote:

“Tell me and I forget.

Teach me and I remember.

Involve me and I learn.”

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2 Polymath – a person of wide-ranging knowledge or learning (Oxford Languages).



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About the author

Juan Miguel Luz is an educator and writer. He was dean and head of the Zuellig School of Development Management at the Asian Institute of Management. He also served as Undersecretary of Education, Republic of the Philippines.

Despite the increase in the number of students attending schools worldwide, the findings of studies are that students are not necessarily learning at level. In spite the heavy investments made in education systems, certain groups of children are still being left behind despite attending school. Are children reading, writing, and doing arithmetic at level by Grade 2? Are they developing language and communication skills early in life? Are they learning to read, write and do arithmetic (the 3Rs) in the early primary years? Data from many countries including more developed ones reveal large percentages of students not mastering these foundational competencies.

More children may be attending school today, but are they, in fact, Learning?

These are stories of teachers from around Southeast Asia recognized by the Princess Maha Chakri Award Foundation. Their stories look at their teaching journeys and how they define Learning for themselves and their students.

Lim Soh Ngo, *Brunei Darussalam*
Dy Sophorn, *Cambodia*
Encon Rahman, *Indonesia*
Khuonvilay Khenkitisack, *Lao PDR*
Saripah binti Embong, *Malaysia*
Than Tun, *Myanmar*
Jesus Catigun Insalada, *Philippines*
Sarabjeet Kaur, *Singapore*
Jirat Jamsawang, *Thailand*
Leopoldina Joana Guterres, *Timor-Leste*
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