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#### CG-7 Southeast Asia

Curt Gabrielson, a science teacher and an Institute Fellow, is observing the reestablishment of education in East Timor.

### A Long and Rocky Road: Education in New East Timor, part 2

By Curt Gabrielson

July 1, 2001

DILI, East Timor – I was recently invited by the East Timor National Division of Education<sup>1</sup> to attend a weeklong workshop for primary-school math teachers. The goal of the workshop was to produce a manual that teachers throughout the country could use to improve their mathematics teaching.

The first day began with high-powered speeches by the head of the Division, the head of primary and secondary education, and the head of UNICEF East Timor. A giant poster proclaiming the title of the workshop graced the wall behind them, and the group of 30 handpicked teachers followed the speeches with wide eyes. Cameras flashed and rhetoric rippled smoothly to the ears of all those present. Moving ahead is important! Education is important! Math is important! Standards are important! The future is bright if we only work hard! Applause filled the room, and the speakers got first dibs at the coffee and peanuts.

After the break, and the departure of the heads, we were introduced to Mr. George. Mr. George was an "educational expert" from Australia who had recently written and administered a standardized test of math competency in East Timor. The test, sponsored by the Division of Education, was given to grades three and five at two elementary schools in each of East Timor's 13 districts, and the results were being tabulated as he spoke. We were to get a privileged preview, a first-hand account of the test's results with comment from Mr. George.

For the next two hours, Mr. George droned on (through an interpreter) about the conclusions he had drawn from the test's results and his recommendations. We heard such gems of wisdom as:

- "The students are very weak in numerosity."
- "It is a great problem to teach math and science when you are using a language they don't understand."
- "Just talking does not work most kids learn through practice."
- "They are suffering from lack of visual stimulation."
- "Some kids don't know which direction the sun comes up in.2"

I had a look at the tests later, and estimate that one-third of the questions had no relevance to the life of the average student in East Timor. There were questions about the hands of a clock, when a student may never have seen such a clock, questions about money in denominations not presently used in East Timor, and

<sup>&</sup>lt;sup>1</sup> The Division of Education, Culture, Youth and Sports is currently part of the National Department of Social Affairs, which also includes the following divisions: Health Services; and Labor and Social Services. This structure may change when the UN transitional government makes way for an independent government of East Timor following the election in August.

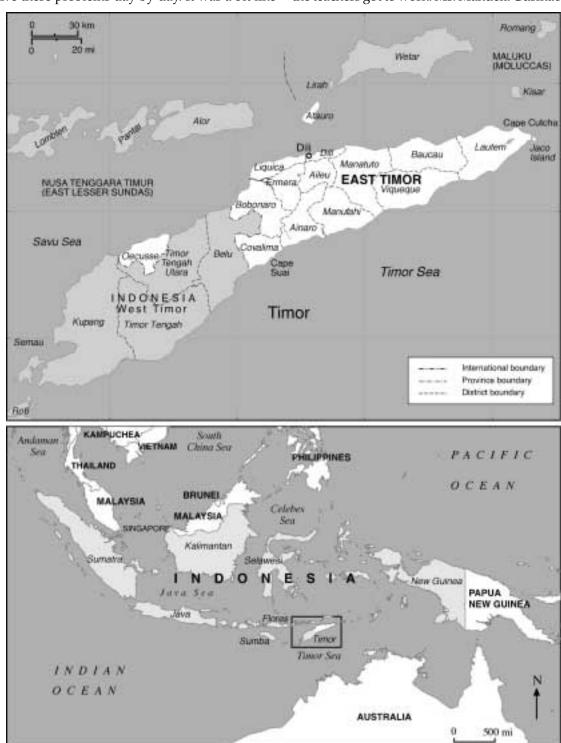
 $<sup>^2</sup>$  This statement struck me as particularly ignorant. I have asked numerous kids since then, and each pointed east, and of course knew the Tetum name for east: loro sa'e, literally "sun rise."

questions about queer diagrams that could appear to be any number of things to a creative student unfamiliar with Mr. George's expertise. In addition, the test had been written in English and translated to Bahasa Indonesia.<sup>3</sup> Thus, a great number of errors quite probably arose from language discontinuities.

Yet, armed with his test results, Mr. George confidently illustrated a long list of problems to this group of teachers, who live these problems day by day. It was a bit like

someone on a boat telling a person overboard that the water is cold and deep, and that learning to swim is pertinent. Not being familiar in any way with the culture of East Timor, he had nothing concrete or constructive to offer, though he made valiant efforts. (For example: "My personal opinion is that no matter what grade you are teaching, you should teach them what they don't already know.")

After a hearty lunch and the departure of Mr. George, the teachers got to work. Ms. Manuela Gusmao, in charge



<sup>&</sup>lt;sup>3</sup> Bahasa Indonesia is the official language of Indonesia and, in theory, teachers have been using this language for the last 24 years. Most teachers I have seen in fact use Tetum, the lingua franca of East Timor, and supplement with Bahasa when they need it. See my third newsletter for more information on the complex and unique language situation in East Timor.

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of teachers and curriculum in the Division of Education, coordinated the workshop. She gave the teachers their task of writing the manual and formed them into groups around their grade level. They began working ambitiously. Five days later, they had succeeded only in reshuffling the basics of the curriculum for each grade, and writing it on large sheets of paper ("Topic:, Subtopic:, Methodology:, Didactic Materials:, Objective:," etc, etc, etc.). The Division of Education was as far as ever from having a manual on math education.

Manuela confided to me later that she was greatly saddened by the presentation of Mr. George. She had only given him a half-hour of time, but was too polite to stop him. She also poured out her frustration that the teachers could not seem to grasp the task at hand, nor summon any creativity to their teaching methods.

The story of this workshop exemplifies a stack of three difficulties facing the development of education in East Timor. Most educational personnel have experience with only one very narrow form of stiff, conventional education, and thus can produce long lists of "Topics and Subtopics," but exhibit no real vision or creativity. Administrators, who could conceivably lead the way to constructive change, also have little experience and limited effectiveness. The internationals, here ostensibly to provide expertise and ideas from a broader ex-

perience, are quite often unqualified to offer anything of use, and yet hold positions of great power.

This troublesome situation exists in nearly all areas of education in East Timor. In April I visited the Faculty of Education at the University of Timor Loro Sa'e<sup>4</sup> to offer my services as an occasional physics teacher. At that time the faculty was located in the buildings that housed the old university under Indonesia. Indonesian military-supported militias had burned the complex quite severely



(above) Passage to the administration offices of the old university.
Rebuilding will begin on this facility later this year. (right) A classroom at the old university.



following the vote in 1999,<sup>5</sup> and yet some classes will continue to be held there until the start of a new semester in October. It is a shocking site: rubble scooped to the side, charred marks above each door, lights dangling from their fixtures, chalk boards propped up on stools, cheap plastic chairs strewn around each classroom, and no desks, windows or doors.

When I arrived, students were crowding the administration offices, waiting their turn with an advisor to help

<sup>&</sup>lt;sup>4</sup> Timor Loro Sa'e is the Tetum name for East Timor and means, literally, "Timor Sun Rise."

<sup>&</sup>lt;sup>5</sup> See my first newsletter for more on the events of 1999.



The grand entrance to the Liceu. The offices and classrooms of the Faculty of Education are housed within.

work out their schedule. Many were trying to transfer into another department, teaching being a bottom-of-the-barrel choice for a career in East Timor. According to the posted schedule, classes had started, but the period of "Advisement" had been extended so that most classes would not actually begin for another week or two. Harried department heads clutched piles of rumpled papers containing the students' class choices to be finessed into a master schedule. Each waited in line for time on one of the office's two computers. To make their job even more complicated, the new facility had not yet been finished so classes began at the old campus and then, as the semester progressed, departments moved one by one to the new campus.

The new campus is big and beautiful. Other faculties have been operating there since November 2000, when the University of Timor Loro Sa'e formally opened. The Faculty of Education is slowly moving to a set of recently renovated buildings left over from Portuguese colonial days.

The Liceu, as the buildings are collectively called, is a shining modern facility complete with roofed walkways, pink mason-work, decorative landscaping, multicolored floor tiles, imported wood ceilings, giant whiteboards with special overhead lighting and a central air-conditioning system from Thailand. I ran into the new Liceu's Portuguese architect the first time I went to find my classrooms. He was naturally proud of the work accomplished and showed me photos of the wreckage his team began with. He said the 380 million Escudos (\$1.6 million) they had used to rebuild came directly from the City Council of Lisbon, a representative of which now occupies an office in the building.

"We wanted to make the facility an inviting place for the students, so that they would want to come," he told me earnestly.

I didn't have the heart to tell him that even if they conducted university classes in mud huts the students would want to come. A university education may lead to a government job or, better yet, a job in a foreign company or organization. The dream of a reasonable, steady salary is a strong motivator, much stronger than a good color scheme and expensive air conditioning.

Over 5,000 students took the university's entrance examination last year. More than 2,000 failed the test, and then protested that they had been excluded unfairly. These students were offered a bridge program, funded by the UN, in which they could study to prepare to take the test again this year. Currently there are about 3,600 students attending univer-

sity, and 1,500 students in the bridge program.

The university is a high priority for the Transitional Government. The logic is clear: East Timor is short of qualified personnel in many areas, and the university is to produce these qualified workers. University students are not yet required to pay tuition. The university receives \$1.5 million annually from the national budget, amounting to just over \$400 per student. In addition, the university receives quite a bit of bilateral aid from Portugal, Japan and Australia. The United States government has also approached the university with a proposition to create an "American Studies" department. Negotiations are still in progress.

Currently the university consists of five faculties: Agriculture, Social and Political Science, Education, Economics and the Polytechnic, which was previously a separate institution training technicians in mechanical, civil and



*The Liceu is quite a commute for employees of the City of Lisbon.* 

electrical engineering.

The Education Faculty ended up taking me on to teach physics a couple of times per week. It has been quite interesting to meet the students and teachers. There are no physics professors. All the Indonesian professors returned to Indonesia before the vote, and the one East Timorese physics professor from Indonesian times was killed in the violence of 1999. Now there are only two other persons teaching physics. One graduated last year with a bachelor's degree in physics from a university in Indonesia, and the other has yet to graduate from the University of Timor Loro Sa'e in mathematics, but is rumored to know some physics. (Looking at notes my students took in his class, I can't confirm this rumor.) There are plans to create a department of physics within the Faculty of Education, but how does one create a department when no one in the country is qualified to teach in it?

My students are all over the chart in terms of discipline, interest, consistency, and competency. Some sleep in class, and others are on the

edge of their seats with bright eyes. Some have trouble averaging three numbers, but others spout trigonometric identities on demand. Most are interested in learning how to apply the vast reserves of theoretical knowledge they have squirreled away, until now useful only for passing tests. We do hands-on physics and they ooh and ahh with the wonder of actually observing and using something they have been taught as isolated information for years.

Unfortunately, most educators in East Timor continue to view education as the narrow process of information transfer from teacher to student. This kind of poor education seems to be taking place in the majority of classrooms at the university, as well as in primary and secondary schools throughout the country. To change this situation will take a massive, long-term effort.

Wanting to get a sense of teaching at a high school, I found a small, ordinary, public high school and offered



(above) The author, teaching.
The Faculty of Education's
new classrooms boast nice
white boards, but there is a
constant shortage of markers.
Though students sometimes
shiver and get sick from the
chill, foreign teachers love the
new air conditioners. (right)
Most students know the
formula for finding the center
of gravity, but few have
actually done it. Physics class
in the Liceu.



to teach a few lessons of hands-on physics and math. The principal and teachers of Dharma Bakti High School took me up on the offer immediately, and proposed putting two classes into one classroom for maximum student reception. I explained that a reasonable class size was even more important with "edukasaun praktika," as they call my teaching, and that their normal class size of 40-plus was already on the large and hard-to-manage side.

We arranged a time the following week and I showed up 5 minutes before class time. Students were lounging around the school waiting, and a few teachers were tutoring small groups. I found my teacher, and he chatted me up for 40 minutes before we went to the classroom. Cigarettes were put out, students wandered in, and a mass of onlookers assembled at each window. I showed the 12<sup>th</sup>-grade calculus class how to use integrals to find the volume of the classroom under its sloping roof. We measured the floor, the walls, and the height and the slope of the roof and did our integrals. The students were very

receptive, as was the teacher.

But afterward, the teacher was discussing my class with his colleagues and I heard a now-familiar refrain of how stupendous my technique had been, and how it had been markedly different from the way "we do it." There was no word on how he also could perform the same simple lesson with a bit of practice, making calculus come alive for his students.

The following day I taught an 11<sup>th</sup>-grade physics class about simple circuits with wires, bulbs and batteries, and once again the class started late. Once again the teacher talked about my teaching as if I was superhuman. He did, however, take my set of wires, bulbs and batteries when I suggested he try the lesson with his other classes.



Waiting for education to happen. Dharma Bakti High School.

The principal of Dharma Bakti, Francelino, is an energetic young man, active in the newborn teachers' union as well as in national education circles. He desperately wants his teachers to receive training and improve their methods. But when he tries to assemble them, few are committed to the process, and many don't show up at all. "La iha dixiplina," he says - "There is no discipline." It is a set phrase I have heard in many quarters and it belies a much larger question: How does one introduce discipline, serious structure, and high standards? How does one learn, on-the-job, about effective, administration? It seems a question as important as those involving curriculum or school facilities.

Speaking of facilities, the classrooms of Dharma Bakti look like chair showrooms. Office chairs, picnic chairs, washing stools, park benches, high chairs, plastic "resort" chairs, home-built wooden creations: all appear in various sizes and colors. The students were each asked to each bring a chair, and this was the result. There was however, not a desk in sight, even in the principal's office.

Something is wrong here: we are drawing near the two-year mark since the destruction of East Timor; schools have been functioning in some fashion for over a year and a half. And yet this high school in the capital city still has no desks or chairs. I recently learned, from various sources (inside and out), the fascinating story of the production of school furniture. And what a story it is.

Midyear 2000, AusAID (Australia's international aid institution) did a feasibility study on domestic production of school furniture in East Timor. The study concluded that the capacity existed among East Timorese to construct their own school furniture if provided with timber, fasteners and administrative support.

The World Bank, which is administering the funds for school furniture, chose to ignore that study and rely instead on its experience in other countries, namely that a country recently destroyed cannot possibly rebuild its own infrastructure, and proposed to have all school furniture imported. Not surprisingly, this decision was unpopular with local leaders, and after much argument, it was agreed to construct 40 percent of the furniture in East Timor, and to get international contracts for the remaining 60 percent.<sup>6</sup> A team of international consultants with experience in carpentry and business was put in charge of identifying local carpenters and assisting them with any administrative problems.

Administrative problems were the order of the day. Contrary to the recommendations of the AusAID study (and some would say to common sense) the local carpenters were required to put in bids for furniture contracts as part of a six-week tender process. Many of the

Chairs like this, produced in three sizes, are destined to become familar to school kids throughout the country. I test drove it, and found it comfortable only when slouching down in a sleeping position or reeling back on its hind legs. (And no, it doesn't fold.)



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carpenters knew little about basic business concepts such as overhead and profit, and were bewildered at the idea of bidding on a contract. Nonetheless, with the help of the team of consultants (a competent, conscientious team by all accounts) around 60 carpenter shops prepared their bids. Three weeks into the process, the UN reduced the tendering time from six to four weeks.

Despite the mid game change-of-rules local carpenters placed bids and won contracts for 40 percent of the school furniture. Each carpenter signed a multi-page contract filled with tiny print and highly technical legal prose (in English only), outlining, among other things, the ramifications should either party renege. The UN/World Bank theory was quite clearly this: "If they want the contract, they'll sign it." No effort was made at raising the capacity of local small businesses, nor even insuring that they understood fully what they were signing.

After the contracts were signed, another bomb dropped. Officials declared that donor countries provid-



A tutor group meeting in a corner at Dharma Bakti High School. Serious students can often get extra tutoring from teachers.

ing the World Bank's funds had approved only 10 percent of the furniture to be built in-country, most likely following World-Bank recommendations. The World Bank was unable to release funds to begin the operation, and weeks were wasted acquiring a waiver to the 10 percent limit.

The seed money was delivered to the local carpenters shortly before Christmas, 2000. Every local carpenter knows that commercial timber comes to East Timor from Surabaya, Indonesia, and that the ports of Surabaya are closed for several weeks around the New Year. The UN and World Bank, however, seem to have

learned this only at Christmas time, and many carpenters did not receive their materials until February.

Nevertheless, domestic production of school furniture was all but finished by the end of May, with the desks and chairs delivered to the schools. Furniture from foreign production, which cost more and took precious revenue out of East Timor, is still trickling in.

Responsibility for the school-furniture fiasco rests in the hands of a few individuals within the World Bank and the UN Transitional Administration, who ignored or were ignorant of the realities of East Timor, and drove the process according to their own personal opinions.

The quandary is not that these individuals have opinions, but rather that these opinions all too often have priority over any local one. For example, an international man chose the design for school chairs, a design UNICEF used in Africa in the 1970's. The man had virtually no knowledge of East Timor, and yet was convinced this

design was the best. More to the point, he had the power to make the choice. Now there are 110,000 chairs of that design in East Timor, for better or for worse.<sup>7</sup>

Furnishing the schools brought to light another problem, related more to poor administration than to international staff: there is no grand map of the schools in East Timor. I have seen seriously conflicting lists of schools originating from various different offices within local and national government. Education officials use fascinating language when talking about the number of schools in East Timor: "There may be close to 900 schools in East Timor." or "There are probably around three primary schools in that subdistrict." To know for sure would require walking several hours into the mountains to visit each school, because often no one in the main village can confirm where the schools are.

Certainly, it must be difficult to provide furniture to a school if no one can confirm its location. Many District Education Officers have been in place for over a year, and have yet to map (or visit) the schools they administer.

But most people say things are getting better. If you need support for that view, you would do well to visit Ana at the offices of the Emergency School Readiness Project. The ESRP is a project of the Division of Education, funded by the World Bank. Its goal is to get schools functional, and then improve educational quality across the board. Ana has spiffy little brochures in four languages claiming great success in reroofing and refurnish-

<sup>&</sup>lt;sup>6</sup> The foreign contracts went to Australia, Thailand, Laos, and ironically, Indonesia.

<sup>&</sup>lt;sup>7</sup> There are approximately 210,000 students in primary and secondary schools in East Timor, and there were initially plans for 110,000 more sets of furniture to be made next year. Those plans have been scratched in favor of building huge new "superschools" in a few locations. It is clear that school furniture will continue to be a problem in the coming school year.

ing schools, and other brochures laying out the design for brand-new schools to be built. Her office has produced a 60-minute video that was presented at the recent East Timor's Donor Conference in Canberra, Australia, but you can't view it yet — it hasn't been released to the public. (I wonder if the donors realize that.) Most peculiar, she has a short video in the works that is to go to the districts, so that people in the districts will all know what progress has been made in education. (As opposed to taking a look at their own schools.)

Ana's boss is Father Filomeno Jacob, a prominent East Timorese who heads the Department of Social Affairs, under which is the Division of Education. The World Bank, on the other hand, provides all the funds for the ESRP,8 leading me to believe that Ana really answers to international officials at the World Bank. It is quite eye-opening to find out who is holding the reins, and to ponder these persons' knowledge of East Timor.9

Ana's video must have been quite a hit, for Father Filimeno scored big at the Donor's Conference. All previous donors vowed to continue funding to education, and the European Union, among others, has pledged more money for East Timor's education system. The annual budget for the Division of Education, Culture, Youth and Sports (before the conference) stood at \$54.6 million dollars, an interesting number in light of the fact that the entire domestic budget for East Timor is only \$65 million. Out of that \$65 million, the Division gets \$20 million. The other \$34.6 million comes directly from the UN, World Bank and bilateral donors, with international personnel guiding each dollar.

Defenders of the system would say that the very lack of experience and skilled administration I describe is reason to have internationals here. I wholeheartedly agree, and know many international personnel who do effective, conscientious work, absolutely key to the successful development of East Timor. Unfortunately, Mr. George is far more representative of most internationals I have seen working here. And Mr. George was small potatoes: he and his test could but document the "deficiencies" of thousands of students, and bore a group of teachers for a few hours. International UN and World Bank employees decide the fate of entire projects and plans in East Timorese education, regardless of their experience, skills or ethics. Something is dreadfully amiss in the process of recruitment, screening and training of international staff.

Today Manuela Gusmao sits in her office of the Division of Education watching useless internationals come and go, and must make daily choices to accept or reject offers of "help" from foreign sources. She also sees teach-

ers struggling with their work and not receiving needed support. She holds a crucial administrative position and is well aware of, and frustrated by, her limitations. She calls it a hard situation.

This hard situation often seems overwhelming to me. There are no fast solutions on the horizon to problems of troublesome foreigners, poor administration, and a lack of experience and vision. Hope is inevitably renewed, however, when I block out the big picture and focus on small successes, of which there are many. For instance, my university students sidetracked the entire lesson last week with a brilliant series of questions about mobile phones in relation to sound and radio waves. I was forced to improvise new demonstrations and new explanations; they were taking hold of their own education. And when I returned to Dharma Bakti High School, Constantino the physics teacher had done the bulb and battery activity with all seven other 11th grade classes, giving them a chance to experience first hand the realities of simple circuits. Grounded in positive experiences such as this, I have all the hope in the world for the future of education in East Timor.

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<sup>&</sup>lt;sup>8</sup> Though standard terminology, this is not quite true. The World Bank is only the administrator of funds and programs in East Timor; World Bank funding actually comes from individual donor countries or organizations.

<sup>&</sup>lt;sup>9</sup> There are personnel on the World Bank's payroll in positions throughout the UN Transitional Administration of East Timor. These persons have the power to insure that only local projects that agree with World Bank goals receive funding. This is crucial issue to which I cannot do justice in this newsletter.