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What do we learn when we teach abroad? Reflections about International Cooperation

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Abstract

In the last decades scientific and pedagogical cooperation has been increasing both as a consequence and as a promoter of a more global world. An autoethnographic description of the experience in designing and implementing scientific modules of a Timorese teacher training programmes by a team of Portuguese teachers constitutes the starting point to reflect on the challenges and barriers of cross-border programs. It is believed that the identified learning outputs of the Portuguese teachers that participated in this particular program may constitute a valuable tool for other teachers, promoting success and effectiveness in future international cooperation strategies concerning education.

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1. Introduction

Scientific and pedagogical cooperation has been increasing both as a consequence and as a promoter of a more global world (Tarabini, 2010). Teachers and researchers from more developed countries have been collaborating in cross-border programs and protocols which aim to help developing countries, particularly post-conflict countries (such as East Timor) growing and constructing more sustainable and knowledge-based societies (Richter, 2009).

In the last decade, particularly since 2008, the Timorese Government has been investing on teacher training programmes, mainly in-service teacher training. To achieve this goal, the Timorese Ministry of Education has relied on the support of international experienced higher education institutions, particularly from Brazil and Portugal (both Portuguese speaking countries), due to the language expertise. Since the independence (1999), the official languages of the country are Portuguese and Tetum (Millo & Barnett, 2004).

The 8th edition of the teacher training bachelor’s degree is one example of the Timorese government effort to obtain competent and trained teachers. The last module of this programme was implemented on the National Institute for Teacher Training (INFORDEPE), located in Dili, East Timor, during November and December 2011, and was attended by 301 teachers. A team of Portuguese teachers from the University of Aveiro (Portugal) was responsible for the design and implementation of the training modules in the scientific domains of Biology, Chemistry, Mathematics and Physics (Albergaria-Almeida, Martinho & Lopes, 2012).

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In this paper we aim to: i) describe the context within which a set of science modules of the Timorese teacher training programme (bachelor course) were implemented; ii) discuss the personal (learning) experience of three Portuguese teachers involved in the process of designing and implementing the module; iii) identify the main learning outcomes of the experiences and draw some recommendations for other future International Cooperation.

2. East Timor: brief contextualization

2.1. The socio-political scenario: from colonial rule to independence and rebuilding

East Timor has reached independence in 2002 after two successive waves of colonization - first under Portuguese colonial rule and then after Indonesian rule - and 32 months of temporary international administration by the United Nations Transitional Administration of East Timor – UNATAET (Richter, 2009).

Portuguese administration lasted more than 400 years. In November 1974 East Timor proclaimed independence. One month later Indonesia invaded East Timor, which was followed by a brutal process of annexation, resulting in the death of approximately one quarter of the population (Millo & Barnett, 2004). In 1999, a UN sponsored referendum brought the Indonesian occupation to an end. This lead to a wave of violent retaliation perpetrated by the Indonesian military and militia groups (Robinson, 2009). Consequently, about 80% to 90% of school buildings and other infrastructures were destroyed (UNDP, 2002), and almost the entire qualified workforce in all sectors, including education, was lost (Richter, 2009).

Since its independence East Timor has made an enormous progress in rehabilitating its society. In the last five years East Timor has made considerable progress in improving its people’s livelihoods, alleviating poverty and improving social conditions (UNDP, 2011). Much of these improvements are possible because of the revenue from the Petroleum Fund.

2.2. East Timor’s educational background

Nowadays, East Timor’s education system is still the legacy of colonial rule (Shah, 2012). The Portuguese showed a slight interest in mass education, while the Indonesian government was determined to achieve universal primary education. Two different approaches with the same goal: using teaching as a strategy of ‘cultural invasion’ of population (Millo & Barnett, 2004).

During Portuguese administration religious education became the main tool for building a submissive local elite and to install a general feeling of being Portuguese. Timorese culture and geography weren’t taught. On the other hand, Indonesia waged in mass education investing largely in East Timor’s educational system, to inculcate young Timorese into Indonesian culture. According to the 2002 UNDP report, around 1985 almost every village had a primary school. The University Timor-Timur was opened in 1986 and many East Timorese were granted scholarships to Indonesian universities. However, such an increase in educational possibilities was not followed by the quality of teaching. Furthermore, Indonesia forbade the use of Portuguese (the language used in East Timor during the Portuguese period, as well as Tetum and other dialects) in schools and implemented Indonesian language as the official language of East Timor.

Since the independence East Timor has been aspiring to transform the educational legacy of the Portuguese and Indonesian occupation periods. However, this educational liberalization is not an easy task (Millo & Barnet, 2004), particularly due to the lack of qualified trainers. The East-Timor Survey of Living Standards showed that, in 2007, a substantial percentage of the population (57%) remained uneducated to the primary level and only 14% had education to the secondary level. Due to the shortage of teachers a large number was recruited on a voluntary basis, therefore lacking qualifications (a large number hold only primary education) (UNDP, 2002). Consequently, in 2008 the Government provided intensive training for 3.000 teachers, and in 2009 this programme was extended to cover 9.000 teachers.

The bond of cooperation between East Timor and other Portuguese speaking countries, such as Portugal and Brazil, is essentially focused on developing further the quality of education through the reintroduction of the
3. The present study

3.1. The science module of the 8th edition of the teacher-training Bachelor Course

The last module of the 8th edition of the teacher training programme was developed by a team of 10 qualified teacher trainers from the University of Aveiro, in Portugal. The 301 Timorese trainees that attended the course were divided into subject areas and latter subdivided into smaller groups. Such an arrangement resulted in 10 classes of varied length: 4 math’s classes of nearly thirty teacher trainees each, 3 biology classes of approximately forty trainees each, 2 physics classes each composed of 15 teacher trainees and 1 chemistry class with ten trainees.

In the following sections the contents, the time schedule, as well as the facilities of the institute where the bachelor course took place, are briefly described.

3.1.1. Contents [what and when]

The contents covered during the course included topics that are taught at pre-secondary level, from 7th to 9th grade. The daily training schedule followed a work routine of 8 hours, split up into 5 hours of morning classes and 3 hours of supervised autonomous work in the afternoon to consolidate and extend the work carried out in class. Once a week, the afternoon work of each class was substituted by practical and experimental activities in the laboratory (Physics, Chemistry and Biology) and problem/exercise solving (Mathematics).

3.1.2. Location [where]

The course took place at the National Institute for teacher training – INFORDEPE – housed in a plot of buildings in the centre of Dili. It includes several classrooms (with space for 50 to 60 individual student desks); one roughly maintained science laboratory divided by shelves in three areas to accommodate the Physics, Chemistry and Biology classes (with space for 20-25 trainees per area); one library with a severe shortage of books, being very few up-to-date; one photocopy centre; one computers room (with less than 20 computers); one auditorium; one canteen and one dormitory for those trainees who were displaced from their home districts.

All the rooms provided for the training programme were constrained by non-existent running water, more significant in the science lab, and limited access to electricity, characterized by constant and unexpected run-outs, mainly noticed in the computers room and the science lab.

3.2. Designing and implementing biology and chemistry modules: a descriptive reflection [how]

The focus of this paper is the reflection about the learning experience of three Portuguese teacher trainers who worked together in the science module, two biology teachers and one chemistry teacher. It constitutes a conscious effort of outside positioning from their personal learning experience. Therefore the study can be identified as being an auto-ethnographical reflection (Hernández, Sancho, Creus, & Montané, 2010; Mitra, 2010). Reflective description and argumentation is based on collaborative analysis of produced teaching-learning materials and also three individual narratives written by the first three authors about their personal learning experiences in East Timor, based on the following questions: i) What had the most impact on you? Why?; ii) What would you do different if you could repeat your experience? Why?

The contents of the Bachelor’s course, as well as its main aims, were previously defined by the Timorese institutional partner: i) improving Timorese teachers’ scientific knowledge, and ii) contributing to the development of their pedagogical content knowledge. As trainers, our job was to put in action these pre-defined aims.

The main aim of the first class was getting to know the Timorese teachers’ profile in order to make further decisions on the strategies concerning the global approach. Quite soon it was possible to identify the following major challenges:

• heterogeneity of the trainees: "Only two of the trainees I worked with were Chemistry graduates. The other
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trainees taught Mathematics, Physics, Agriculture or Primary Education. Another was a school inspector and the others weren’t formerly graduated from higher education institutions.” (Excerpt of Mariana’s narrative)

- high miscommunication risk due to language difficulties: “We knew that it would be challenging, but we never thought that our first obstacle would be the language. Although teachers should teach in Portuguese, it is not their mother tongue. How can we teach scientific content if our trainees are not fluent in the teaching language? To what extent can we simplify the language so that our trainees can understand the scientific topics?” (Excerpt of Patricia’s narrative)

- lack of pedagogical resources within the course and afterwards, when Timorese teacher would eventually implement the learned strategies at their own school: “(...) We brought a video projector to show some power point presentations, but when the Timorese teachers described to me their professional context... I thought... How inappropriate. What is needed is innovation through pen and paper and by simple teacher-student talk. What is the point/logic in showing utopic innovation?! Innovative strategies have to be implementable by the teachers at their own school.” (Excerpt of Betina’s narrative)

The recognition and discussion of these difficulties during the first classes lead to a set of collaborative decisions concerning teaching-learning strategies of morning classes: a) Start each ‘thematic block’ with the introduction, exploration and definition of the main concepts. Strategies such as oriented reading and interpretation of simple texts, registering the main terms and concepts on the board were widely used, firstly because these type of strategies were similar to the transmissive tradition Timorese teachers were used to, and secondly it allowed trainees that had difficulties with some basic concepts to track on; b) Introduce gradually tasks that were more cognitively demanding (e.g. elaboration of concept maps after reading/exploring specific topics; identification of the ‘intruder’ in a group of related concepts; multiple choice exercises); c) Implement the strategies mainly in small groups, in order to promote discussion and collaborative learning between peers, again to ‘contradict’ the transmissive tradition in Timorese education.

It was also decided that the pedagogical aims of the Bachelor’s course would be worked at the end of each specific thematic block, after the consolidation of the scientific content. Teachers were asked to reflect and work, again mainly collaboratively, on topics such as: definition of learning outcomes and assessment criteria for specific scientific contents; long and midterm class plans considering scientific contents and learning outcomes; or design of diverse teaching-learning-assessment strategies. By transferring the pedagogical aim to the end of each thematic block, it was intended to give the Timorese teachers the opportunity to work on, and apply, the ‘new’ knowledge they had previously acquired.

- Timorese teachers unfamiliarity with lab material and lab activities: “During our first lab class, where the teachers had the opportunity to observe some human tissues at the microscope, it was obvious that they never had the opportunity to work with a microscope. I had to put my hand on the teacher hand to guide the movements... This felt as if I was interfering on the teaching culture of Timor, as it was explicit that teaching is not just reading and writing, teaching can also be ‘manipulating’ objects. It was an overwhelming experience for me”. (Excerpt of Patricia’s narrative)

- Risk of cultural and educational shock: “Right at the beginning I had a quite unpleasant experience. I was inviting one of the Timorese teachers to explain his point of view and to write some ideas on the board. I had a quite strong reaction from one of the teachers who said he did not want to be prejudiced in his learning... he wanted excellence in knowledge...and by those excellence he meant...me (the teacher)! I could see in the audience that it was a general opinion. It seemed to me that they were not ready to share their knowledge, their expectations was to receive knowledge from someone ‘more educated’ ... they almost felt offended by my suggestion. At that point I realized that I had to reframe myself ... and be more flexible. (Excerpt of Betina’s narrative)

Despite the initial discussion and careful planning at the beginning of the course, during the following classes, some episodes of ‘educational-cultural shock’ between trainees and trainers naturally occurred. Collaborative sharing of these experiences was important both to help the Portuguese teacher who actually experienced that episode to emotionally deal with it and also to prevent the occurrence of similar situations in future classes with the Portuguese colleagues.
4. Final discussion: What did we learn while we taught abroad?

It was only after the initial contact with Timorese teachers that we became more aware of the great challenges that we would be facing. Only then we were able to clearly decide on an implementation structure to follow throughout the course. As a result, we opted to proceed to the pedagogical content knowledge only after approaching the major scientific content; we promoted collaborative work among trainees and we implemented practical activities, despite of the wide range of constraints. Throughout the course flexible implementation and mutual re-adaptation were crucial in order to maximize the success of the training programme. Reflection about this rich learning experience, which is still being processed (almost one year later!), allows us to draw a set of suggestions that may be particularly relevant for young generations of international cooperators: i) Gather some information about the historical and social background of the country before you go abroad; ii) Ask the locals about their teaching culture, values and general lifestyle in the country - it will enhance your acceptance; iii) Considering science education, pay particular attention to the practical-experimental and laboratorial dimension of teaching; iv) Design your classes taking into account not only the immediate context of the course, but also the professional context of the teachers; v) Read some literature concerning world development and the challenges associated to educational reforms in post-conflict countries; vi) Recognize that cultural and social shock is normal. Don’t ignore it, use it to learn and to do better next time; vii) Share your experience and your feelings with your peers.

Despite the social, professional and economic constraints, the Timorese teachers revealed an exemplary motivation and sense of solidarity with their colleagues and also with us. The experience of making part of this educational transformation (Millo & Barnett, 2004) excelled our highest expectations, and we feel that almost one year later, the learning outputs are still continuously emerging and influencing our personal approach to our professional and personal lives.

References


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