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Pathways to Change: Improving The Quality of Education in Timor-Leste

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Abstract

After more than 400 years of Portuguese colonization and a 24-year period of Indonesian occupation, Timor-Leste became a fully independent state on May 20, 2012. Independence followed a period of extreme violence caused by the Indonesians, who destroyed homes, livelihoods and infrastructure and devastated schools before leaving the country. Since 2012, the country has resorted to international aid to reconstruct the country and rebuild its education system. Following the restructuring of the basic education, the country has recently implemented a new general secondary education curriculum, through international cooperation with Portuguese institutions. This article presents the new curriculum developed and puts forward some of the challenges regarding its implementation. Based on interviews conducted with several policy makers, findings suggest challenges related with the use of Portuguese language, the scientific and pedagogical training of teachers and the pedagogical and administrative management capacity in most secondary schools.

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1. Introduction

Change in post-conflict nations is often fuelled by funding from donor countries, government agencies, non-governmental organizations (NGO), bilateral donors, or international development institutions. Asia's youngest nation, Timor-Leste (Timor hereafter) has been the recipient of millions in foreign aid, with Australia, EU

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Institutions, the US and Portugal heading as donors according to data provided by the OECD Data Lab¹ (2012). Since its independence, in 2002, considerable amounts of money have been donated to reconstruct the state and the nation, an effort that includes rebuilding an education system that saw 95% of its schools destroyed and a mass exodus of teachers in 1999 (Supit, 2008). Schools have been built and improved, curricula have been restructured and several initiatives to increase literacy rates among adults and adolescents in the country have been undertaken (UNICEF, 2010; Boon & Kurvers, 2012). Substantial efforts have been made towards reaching the Millennium Development Goals (MDG) and the government's National Education Sector Plan (NESP), but despite these, recent studies and reports reveal that schools are still insufficient, severely underfunded and lack basic physical infrastructure such as water, sanitation facilities and furniture (World Bank, 2014); there is also a shortage of trained and dedicated teachers (Jerónimo, 2011) and an estimated 58% of its adult population (of 15 years old and older) is illiterate (UNICEF, 2013). Students spend more time in schools, but they learn for fewer hours than their international peers and the quality and organization of the content is in need of improvement (Gabrielson, Soares & Ximenes, 2010).

Portugal, Timor's fourth largest bilateral donor, is the second largest regarding the sector of social infrastructures in which Education is included². Official development assistance donated to Timor between 2011 and 2012 corresponded to 24 million USD, 15% of which were allocated for spending on the Education, Health & Population sector³. From a total of 24 development projects, 12 relate to the area of Education⁴ and to different educational levels, such as early childhood education, secondary and post-secondary education, higher education and teacher training. Financial aid is supported by the Portuguese government and other funding agencies, such as the Camões Institute for Cooperation and Language (CICL) or national NGOs. Projects are usually developed and carried out by implementing partners such as national government institutions, including universities.

The University of Aveiro (UA) is one of them. Through its International Cooperation for Development (UAICD) office, the UA aims at creating and expanding access to knowledge for the benefit of individuals and society through research, education and cooperation, thus contributing to the creation of a better and more stable world, characterized by economic and social development, peace consolidation and strengthening, democracy and human rights⁵. The UA's cooperation for development follows two main priorities: a geographical one (Portuguese-speaking countries) and a sectorial one, namely Education. International cooperation scenarios include countries that are either moving from help and cooperation receptors to the condition of suppliers (e.g. Brazil), countries that have financial means, but lack human and institutional/organizational capital (e.g. Angola) or countries in a mixed situation, i.e., that have projects funded by third-party partners which co-exist with self-funded projects, as it is the case of Timor (Sangreman & Santos, 2013). Regarding Timor, the UAICD has been partnering different projects which strive to contribute for the country's development, especially in what Education is concerned. Projects partnered include, for instances, the LIFAU project, which aims at supporting and coordinating policies related with the promotion and dissemination of Portuguese as language of instruction at the National University of Timor (UNTL) or the Speak Portuguese project, which aimed at restructuring general secondary education (RGSE) in Timor.

The purpose of this study is to present some of the challenges regarding the implementation of the new Timorese GSE curriculum, which was developed through a cooperation project established between Timor and the UA. As such, this work is organized as follows. After the introduction, we provide an overall view of the curricular restructuring of the general secondary education (RGSE) project, placing particular focus on the curriculum designed and its aims, specifically in what students' competences are concerned. Before concluding, we put forward some of the challenges policy makers attach to its implementation. Data used for the purpose of this study pertains to document analysis such as reports, the curriculum developed and scholarly articles, and content analysis from interviews conducted with Timorese policy makers.

¹ Available at <http://www.compareyourcountry.org/chart.php?cr=765&lg=en&project=aid-statistics&page=21>.

² Idem.

³ Available at <http://www.oecd.org/dac/stats/documentupload/PRT.JPG>.

⁴ Available at <http://tiny.cc/efd1cx>.

⁵ Available at <https://www.ua.pt/coopdev/PageText.aspx?id=8055>.

2. The RGSE project

In 2010, a protocol signed by the Timorese Ministry of Education (MoE) and two Portuguese funding partners – the Calouste Gulbenkian Foundation (CGF) and The Portuguese Institute for Development Support (PIDS), currently CICL – marked the beginning of the RGSE. Following this protocol, an agreement⁶ was celebrated between the CGF and the UA establishing the university's responsibility for designing and developing all didactic resources related to the new curriculum (2010-2013). The overall objectives of this project were twofold: first, to assist in developing a system of quality secondary education through curriculum development and reform, thus helping to advance the government's goal of universal access; second, to support and strengthen Portuguese as the instruction language.

Restructuring a country's education curriculum requires that it responds to the specific needs of teachers, students and communities, as well as the needs of the country in order to face the demands of a global economy based on knowledge (Ng, 2009). Also, didactic resources developed should take into consideration the context of its user's society, depicting its reality and reflecting its culture (Pingel, 2010). These aspects were taken into consideration during the design and development of the new curriculum. According to data retrieved from the project official webpage⁷ and project reports (Martins, Moreira & Ferreira, 2009; Martins et al., 2010), several meetings were held with different entities in order to understand their expectations towards the new curriculum and to promote a good working relationship with all parties involved. These included, though not exclusively, policy-makers, religious leaders, national and international institutions, including UNICEF (responsible for the restructuring of Timorese basic education). Following the initial meetings, several others took place with the intent to present and discuss the new curriculum and subject programs. These were held with policy-makers, district-level officers and Timorese teachers. Particular focus was placed upon the latter, who also participated in working sessions developed by the authors of the curriculum, in which didactic resources (curricular plans, textbooks and teachers' guides) were explored and discussed; recommendations for the improvement of didactic resources were taken into account and included in the final versions of the resources delivered. Recommendations included, for instances, the need to simplify language used, making it more accessible and clearer, the need to include evaluation methodologies and resources, such as exams and their resolutions or the need to integrate more Timorese references in the resources (Ferreira et al., 2011). A group of 24 Timorese teachers also participated in a 6 week training course on the 10th grade curriculum held in Portugal between October and November 2011. The RGSE project was concluded in early 2013, when the last didactic resources were delivered to the Timorese MoE. The official implementation of the new curriculum started in 2012 for the 10th grade, in 2013 for the 11th and in 2014 for the 12th grade.

3. The new GSE curriculum

The new curriculum plan offers two educational paths: Sciences and Technology, and Social Sciences and Humanities. Both share a common set of subjects and each one includes specific subjects related to its area of studies (see Fig. 1). In terms of weekly class periods, the new curriculum points to a total of 20 for the common component in the 10th and 11th grades, and a total of 18 class periods for the 12th grade. Each specific component suggests 16 class periods for the 10th and 11th grades, and 18 for the 12th grade. Both components of specialization are similar respecting the number of disciplines and the number of class periods per week.

Framed by the assumptions advocated by the United Nations (2002a; 2002b), especially in what the Literacy Decade and the Decade of Education for Sustainable Development are concerned (as complements and follow ups of the Millennium Development Goals process and the Education for All movement), the main aims of the GSE focus on students' competence, namely by:

⁶ Available at <https://www.ua.pt/ReadObject.aspx?obj=27841>.

⁷ Available at <https://www.ua.pt/esgtimor/Default.aspx>.

- Ensuring them the opportunity to choose two different paths when entering the GSE, both enabling the pursue of further studies or the transition to active life;
- Ensuring the development of soft skills and specific literacies within different curriculum areas;
- Developing language, communication and digital skills that enable participation in Timorese and the global society;
- Promoting reasoning and critical thinking skills as well as respect for diversity;
- Contributing to the construction of a world perspective that takes into account its social, cultural and linguistic diversity;



Fig. 1. Timorese General Secondary Education Curriculum.

- Enhancing the role of multidisciplinary scientific knowledge for understanding problems at local, national and global scales and the need for an integrated perspective of knowledge for their resolution, and
- Increasing the level of young people' training by improving their ability to mobilize and integrate knowledge that can contribute to the economic, social and environmental development of the society in which they live.

3.1. Common component

The general component, common to both educational paths, aims at harnessing the development of general and transversal skills under an integrated perspective. Each component consists of eight subjects in the 10th and 11th grades - Tetum, Portuguese, English, Indonesian, Citizenship and Social Development, Multimedia Technologies, Religion and Moral Education, Physical Education and Sports - and seven subjects in the 12th grade, since Physical Education and Sports is not part of the 12th grade curriculum. Subjects designed for this component aim at developing students' linguistic, communicative, intercultural, interpersonal and digital skills, fundamental to the development of the individual and the community. The common component is central to the development of individual, cooperative and collaborative work and study habits, considered core aspects for the development of autonomy, critical thinking, problem solving and teamwork. It is expected that they contribute to the recognition of tradition and plurality.

3.2. *Sciences and Technology*

As a whole, the Sciences and Technology component intends to develop specialized human resources, who will be able to strengthen the country's scientific and technological autonomy and contribute for its sustainable development. The main goals of this component include for instances, i) the consolidation of the technical, scientific and individual training of Timorese youth envisaging the continuation of their studies into higher education in areas such as engineering, health sciences, teacher training, among others, valuing autonomy under a lifelong learning perspective; ii) the importance of mobilizing science and technology related skills to solve problems; iii) the development of an interdisciplinary perspective, that allows the articulation of the scientific and technological subjects and knowledge or iv) the deepening of linguistic competence concerning the related subjects.

3.3. *Social Sciences and Humanities*

The Social Sciences and Humanities component values a commitment to promoting education, health and safety as transversal topics of the different subjects. Training in subjects such as Geography, History, Sociology, Literature & Culture or Economy & Quantitative Methods will ensure the development of a scientific, humanistic and artistic culture in Timor. Furthermore, it will ensure the continuation of studies in a range of different areas, such as Law, Communication, Journalism, Tourism or the training of teachers from different areas and for different school levels. Apart from stimulating the development of the necessary skills for understanding and enjoying cultural, artistic and aesthetic manifestations, subjects included in this component lean towards i) the consolidation of communicative and linguistic competences, which are fundamental for an active social participation; ii) the consolidation of the ability to write and read from different media resources, which implies analyzing, interpreting, building knowledge and dialogue; iii) the value of a humanistic culture and the consolidation of individual and community values, which will foster attitudes of citizenship or iv) the self-reflection on national identity that derive from a deep knowledge of Timor and the country's position within the global context of political, social, economic and cultural relations between different societies and civilizations.

4. **Implementation challenges**

Within the scope of a research project, entitled "Evaluating the impact of restructuring secondary education in East Timor – a study in the context of international cooperation", several policy makers, among other stakeholders, were interviewed between May and June 2014. Policy makers interviewed include the Director (D) and former Director (fD) of the National Directorate of School Curriculum and Assessment, the Advisor of the current Director (aD) and the former Ministry of Education (fM).

Policy makers believe that, despite being "a very demanding curriculum" (fD), it results in a considerable advantage for the future of the country in the sense that "it structures and standardizes an educational system that did not exist before" (D). In their opinion, it provides the necessary conditions for the development of students' competences and knowledge as well as the opportunity to meet the MDG and the government's NESP.

In relation to the components of study that comprise the new curriculum, interviewees consider that they will enable important gaps of the Timorese society to be filled in. Subjects included in both components are regarded as essential for the scientific, technological, humanistic and artistic development of the country which, they state, are core areas for an equitable social progress and the establishment of a sustainable society. Furthermore, they emphasize that subjects in both areas widen and deepen knowledge from subjects studied during basic education and "prepare students to pursue further studies, not only in Timorese universities but also in international ones" (fM). Also, they believe that the possibility to choose between two different components of studies will oblige students to become more aware and responsible for their academic path at an earlier age, something that did not happen before as such option was only viable in the 12th grade.

Considering the new GSE as a major step towards the development of the Timorese society, policy makers recognize that the implementation of the new GSE in particular, and Education in general, face a number of

challenges, which cannot be addressed in full in the present work given its limited scope. Among the categories that emerged from the treatment of data gathered from the interviews conducted, three were selected to be addressed in this work. These relate with i) linguistic flaws in the use of Portuguese language; ii) limitations in the scientific and pedagogical training of teachers and future teachers and iii) lack of organization as well as of pedagogical and administrative management capacity in most secondary schools.

Regarding the first aspect, policy makers consider linguistic flaws in the Portuguese language as a natural consequence of 24 years of Indonesian occupation during which Portuguese was forbidden and banned from schools. Nevertheless, the decision to adopt Portuguese as the instruction language is considered to be the appropriate option for Timorese society, not only because it is one of the country's official language, but also because Tetum, the other official language, "still lacks a solid structure and does not comprehend enough technical and scientific vocabulary to support a new curriculum" (D). Policy makers recognize that the introduction of Portuguese language in schools will take its time and that its lack of domain may prevent full access and comprehension of subject contents. Therefore, training in Portuguese language will continue to be a priority, as it has been since the country's independence. At present, training on the new curriculum is being provided by Portuguese trainers, who also provide pedagogical support in some schools. The MoE Curricular Department holds data revealing that classes are held in Portuguese and that Tetum is used to complement communication and transmission of content (aD). Data also reveals that teachers are keen on deepening their knowledge of Portuguese and of their specific subject areas.

In what the second aspect is concerned, all interviewees consider the lack of specialized human resources as a major concern/challenge. This is particularly evident regarding subjects that are new, such as Geology, Technologies and Multimedia or Literature and Culture. Timorese universities do not offer these courses yet (Geology is already an option, but not for the Educational sphere), and therefore schools lack trained teachers in these specific areas. This results in teachers trained in Economy, Mathematics or even Religion being appointed to teach these new subjects. The need to improve the scientific and pedagogical training of both in-service teachers and teachers to be is also an urgent issue. In general, subject contents are new and very demanding to most teachers and pedagogical approaches preconized are hard to put into practice. This implies changes at different levels. First, "the need to align training provided at universities" (aD); second the need to improve conditions in schools. The number of classrooms in most secondary schools are insufficient to accommodate all students and the class periods predicted in the new curriculum. The number of students per class is often over 50, which hinders, for instances, the student centred approach explored in the didactic resources to be implemented. Also, most existing infrastructures do not dispose of computer rooms, laboratories and the respective equipment to develop practical work in subjects such as Biology, Physics, Chemistry or Multimedia Technologies.

The last challenge explored in this work relates to the lack of organization as well as of pedagogical and administrative management capacity in most secondary schools. A key element is the school director. So far, school directors were appointed by the MoE regardless their initial training (when any existed) or profile. According to one of the interviewees (D), school directors "must be leaders and know how to lead teachers, students and other staff"; they must also work as "managers, as they need to manage schools, budgets and human resources". Therefore, it is essential that "they are selected based on a specific profile and receive adequate training" to accomplish their tasks. It is his hope that once schools are managed by effective directors, organization in schools will be improved both at pedagogical and administrative levels. In the same sense, school budgets will be better allocated to rebuild and reequip schools regarding basic aspects, such as furniture, sanitation facilities or electricity provision.

Measures to help overcome the aforementioned challenges are predicted in the Government Official Budget Plan for Education (2014). These include recruiting more teachers, providing continuous training to teachers regarding language, pedagogical and specific content, providing management related training to school directors and administration staff, rebuild and equip schools among many other measures.

5. Conclusion

This work presented some of the challenges regarding the implementation of the new Timorese GSE curriculum, which was developed through a cooperation project established between Timor and the UA. In this sense, it provides an overview of the curriculum developed with particular focus on competences to be developed by students. It

specifies the aims of the common and specific components that comprise the new curriculum: Sciences and Technology and Social Sciences and Humanities. Based on document analysis and interviews conducted with policy makers, it puts forward a set of challenges regarding the implementation of the new curriculum.

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References

- Boon, D. & Kurvers, J. (2012). Adult literacy in multilingual Timor-Leste: First results of a study. In M. Leach, N. C. Mendes, A. C. Da Silva, B. Boughton & A. Da Costa Ximenes (Eds.), *New research on Timor-Leste* (pp. 349-354), Hawthorne: Swinburne Press.
- Ferreira, A. et al. (2011). *Relatório de uma missão técnica a Timor-Leste (setembro) – Reestruturação do ensino secundário em Timor-Leste*. [Report of a Technical Mission to East Timor (September) – Restructuring the Secondary Education in East Timor]. Universidade de Aveiro, Aveiro, Portugal.
- Gabrielson, C., Soares, T., & Ximenes, A. (2010). *Assessment of the state of science education in Timor Leste*. Retrieved from <http://competence-program.asia/wp-content/uploads/2012/03/Assessment-of-the-State-of-Science-Education-in-Timor-Leste.pdf>
- Jerónimo, A. C. (2011). *Formação contínua de professores do ensino não-superior em Timor-Leste* [In-service education of non-higher education teachers in East Timor]. Dissertação de Mestrado não publicada. Aveiro: Universidade de Aveiro.
- Martins, I., G. Moreira, & Ferreira, A. (2009). *Relatório de uma missão técnica a Timor-Leste (Julho) – Reestruturação do ensino secundário em Timor-Leste*. [Report of a Technical Mission to East Timor (July) – Restructuring the Secondary Education in East Timor]. Universidade de Aveiro, Aveiro, Portugal.
- Martins, I., G. Moreira, Santos, C., Ançã, M. H., Ramos, A. M. & Ferreira, A. (2010). *Relatório de uma missão técnica a Timor-Leste (Junho) – Reestruturação do ensino secundário em Timor-Leste*. [Report of a Technical Mission to East Timor (June) – Restructuring the Secondary Education in East Timor]. Universidade de Aveiro, Aveiro, Portugal.
- Ng, C.H. (2009). Exploring the linkage between reforms and learning in the Asia-pacific region: An Activity Theory perspective. In C.H. Ng & P.D. Renshaw (Eds.), *Reforming learning: Concepts, issues and practice in the Asia-pacific region* (pp. 23-42). Dordrecht, Netherlands: Springer.
- OECD Data Lab. (2012). *Compare your data*. Available at <http://www.compareyourcountry.org/>
- Pingel, F. (2010). UNESCO Guidebook on Textbook Research and Textbook Revision 2nd revised and updated edition. United Nations Educational, Scientific and Cultural Organization, and the Georg Eckert Institute for International Textbook Research. Paris/Braunschweig 2010.
- Sangreman, C. & Santos, L. (2013). Cooperation and Development – The case of the University of Aveiro, Portugal. *Communication presented at the 45th EUCEN Conference*. University of Geneva, Switzerland.
- Supit, T. (2008). Initial Steps in Rebuilding the Education Sector in Timor-Leste Following the September 1999 Crisis. In J. Earnest, M. Beck & L. Connell (Eds.), *Rebuilding Education & Health in a Post-Conflict Transitional Nation - Case Studies from Timor-Leste* (pp. 9-22). Rotterdam: Sense Publishers.
- UNICEF. (2010). Evaluation of UNICEF’s Education Programme in Timor Leste. Evaluation Report. New York: UNICEF.
- UNICEF. (2013). At a Glance: *Timor-Leste. Statistical data on Education*. Retried from http://www.unicef.org/infobycountry/Timorleste_statistics.html#117
- United Nations. (2002a). United Nations Literacy Decade: Education for All. UN Resolution 56/116.
- United Nations. (2002b). United Nations Decade of Education for Sustainable Development. UN Resolution 57/254.
- World Bank. (2014). *Timor-Leste - Education Sector Support Project*. Washington, DC: World Bank Group. Retried from <http://documents.worldbank.org/curated/en/2014/01/18900123/timor-leste-education-sector-support-project>