



## The implementation of the new general secondary education curriculum in East Timor: The perspective of the Timorese students on curricular restructuring, learning and study habits

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### Abstract

This article aims to present the perceptions of the Timorese students about the implementation of the new general secondary education curriculum in East Timor, as well as to identify and discuss the impact of its implementation on their conceptions of learning and their study habits. It presents a brief theoretical framework that supports the importance of the learning environment and curriculum reforms to improve students' learning, trying to frame the project "Evaluating the impact of restructuring secondary education in East Timor: A study in the context of international cooperation" (2013-2015) and to identify some of the dynamics that occurred during its development. In order to fulfil the aim of this article, it was performed the analysis of data collected by two questionnaires applied to Timorese students in different occasions and with different objectives during the development of the project. Overall, students are aware of the changes being implemented, they consider that the implementation of the new curriculum led teachers to diversify and use more often the educational resources, to develop more interesting and diversified classes, as well as to change the modes of evaluation. The meaning that most of the students attach to learning seems to be influenced by the practices that teachers advocate, and their study habits are dependent upon various aspects, such as access to educational and curricular materials, the existing conditions in school and at home.

**Keywords:** Curricular restructuring; general secondary education; East Timor; students' perceptions; learning; study habits

### Resumo

Este artigo tem como objetivo apresentar as percepções dos estudantes timorenses sobre a implementação da Restruturação Curricular do Ensino Secundário Geral (RCESG) em Timor Leste, bem como identificar e discutir o seu impacte nas conceções de aprendizagem e hábitos de estudo dos estudantes. Apresenta-se um breve quadro teórico que sustenta a importância do contexto educativo e das reformas curriculares para a melhoria da aprendizagem dos alunos, procurando enquadrar o projeto "Avaliação do impacte da Reestruturação Curricular do Ensino Secundário em Timor-Leste: Um estudo no âmbito da cooperação internacional" (2013-2015) e dar conta de algumas dinâmicas ocorridas durante o desenvolvimento do mesmo. Para cumprir o objetivo deste artigo foi



realizada a análise de dados recolhidos durante o desenvolvimento do projeto, nomeadamente de dois questionários aplicados a estudantes timorenses em ocasiões diversas e com diferentes objetivos. No geral, os estudantes estão cientes das mudanças que estão a ser implementadas, consideram que a implementação do novo currículo levou os professores a diversificar e a utilizar mais frequentemente os recursos educativos, a desenvolver aulas mais interessantes e diversificadas, bem como a alterar os modos de avaliação. O significado que a maior parte dos alunos atribui à aprendizagem parece ser influenciado pelas práticas que os professores preconizam, e os seus hábitos de estudo estão dependentes de vários aspetos, tais como do acesso a materiais didáticos e curriculares, e das condições existentes na escola e em casa.

**Palavras-chave:** Reestruturação curricular; ensino secundário geral; Timor-Leste; perceções de alunos; aprendizagem; hábitos de estudo

## Resumen

Este artículo tiene como objetivo presentar las percepciones de los estudiantes timorenses en la implementación del Plan de Estudios de Educación Secundaria General en Timor Oriental, y identificar y analizar su impacto en las concepciones de aprendizaje y hábitos de estudio de los estudiantes. El artículo presenta un breve marco teórico que sostiene la importancia del entorno educativo y de las reformas en el plan de estudios para mejorar el aprendizaje de los estudiantes, intentando encuadrar el proyecto "Evaluación del impacto de la reestructuración del Plan de Estudios de la Educación Secundaria en Timor Oriental: Un estudio en el ámbito de la cooperación internacional" (2013-2015) y presentar algunas dinámicas producidas durante el desarrollo del mismo. Para cumplir el objetivo de este trabajo se llevó a cabo el análisis de los datos recogidos durante el desarrollo del proyecto, particularmente dos cuestionarios aplicados a estudiantes de Timor Oriental en diferentes ocasiones y con diferentes objetivos. En general, los estudiantes son conscientes de los cambios que se están implementando, consideran que la aplicación del nuevo plan de estudios llevó los profesores a diversificar y a utilizar con mayor frecuencia los recursos educativos, a desarrollar clases más interesantes y diversificadas, , así como a cambiar los modos de evaluación. El significado que la mayoría de los estudiantes atribuyen al aprendizaje parece estar influenciado por las prácticas que los profesores abogan, y sus hábitos de estudio dependen de diversos aspectos, especialmente el acceso a materiales de enseñanza y curriculares, y las condiciones existentes en la escuela y en casa.

**Palabras clave:** Reestructuración curricular; educación secundaria general; Timor Oriental; percepciones de los estudiantes; aprendizaje; hábitos de estudio



## Introduction

The concept of learning is complex, has different perspectives and meanings (Biggs, 1987; Gibson, 2003; Yes, Tan & Sim, 2005) and is reflected in different dimensions, domains, and/or learning theories. Some authors consider learning as an acquisition of knowledge, skills and attitudes (Kidd, 1973) or a permanent change in behaviour (Gagné, 1985). Others believe that it reflects an active process (Sheal, 1989) and distinguish it from meaningful learning and rote learning (Novak & Gowin, 1984). This article adopts the perspective that learning is the process by which competences (which involve skills, knowledge, behaviour or values) are developed, in particular, as a result of observation, study, experience, training and reflection (Yes, Tan & Yes, 2005).

Students' learning is undoubtedly influenced by the educational context (Boruchovitch, 1999; De la Fuente, 2004). This should stimulate the acquisition of skills that should be developed in an integrated manner across the curriculum and mobilized in lifelong learning (Gordon et al., 2009). Each student must take a conscious and active role in their own learning (Seeler, Turnwall & Bull, 1994). This role varies according to each student and the educational context in which he/she is integrated, as it depends on the meaning attributed to learning, as well as the strategies, ways of working and teaching resources that they identify and think are best suited for this process (Black & William, 1998). In addition to the educational context, there are also other factors that might influence student's learning, including their family and social context (Collins, 2001; Leithwood, Louis, Anderson & Wahlstrom, 2004). Knowing these aspects is important in order to understand the perceptions that students have about learning and the study habits they adopt for its development, these being the focus of this paper in the context of the general secondary education in East Timor.

The Ministry of Education of the Democratic Republic of East Timor (ME-DRET), recognizing the need for a proper curriculum for the General Secondary Education (GSE), in cooperation with Portuguese institutions, developed the project "Restructuring the general secondary education curriculum in East Timor" (2010-2013), requesting, in 2009, the support of the Calouste Gulbenkian Foundation (CGF) and the former Portuguese Institute for Development Support. The CGF has established a cooperation agreement with the University of Aveiro for its implementation. The Curricular Plan, designed for a cycle of three years, was framed by guidelines of international programs that East Timor has joined and by internal regulatory documents (Ramos & Teles, 2012).. The structure of the curriculum, approved in 2011, comprises 14 disciplines spread over two components: Science and Technology (ST) and Social Sciences and Humanities (SSH).

In line with educational policies of evaluation of education systems, programs and curricular reforms (Cizek, 1993; Simon, 1993), the growing interest in the Impact Evaluation in the least developed countries (Wagner et al., 2012; White, 2006), as well as the intentions of the ME-DRET in monitoring the implementation of the new curriculum (ME-RDTL, 2012), conditions were created for the implementation of the project "Evaluating the impact of restructuring secondary education in East Timor: A study in the context of international cooperation"<sup>1</sup>. This project aims to research how the new curriculum of the general secondary education is being implemented in East Timor, involving two phases: monitoring (phase I) and short-term impact evaluation (phase II). The first phase aims (i) to describe and analyse the way the implementation of the new curriculum is taking place and (ii)

<sup>1</sup> This project is funded by the Portuguese Foundation for Science and Technology (FST) (Ref. PTDC/MHC-CED/5065/2012).



to establish the role of the structures, instruments and strategies in the implementation process. The second phase intends (i) to describe and analyse the state of the GSE regarding the implementation of the transformation agenda and (ii) to establish the direction in which the GSE is moving forward and whether this direction is a desirable one, according to the National Education Strategic Plan and the Millennium Development Goals. The results of the project allow presenting suggestions and recommendations, seeking to improve the implementation of the curricular restructuring in progress.

This article presents some of the results obtained during this project, in particular the perceptions of the Timorese students about the implementation of the new general secondary education curriculum, as well as the impact of its implementation on their conceptions of learning and their study habits. Therefore, an analysis was made regarding the meaning(s) that the Timorese students attach to learning, as well as the activities, forms of work and resources they deem to be most important for the promotion of their learning. From the diverse techniques and data collection instruments used in the course of the project, there were selected for this article the questionnaire surveys applied to Timorese students in two different occasions and with different objectives. From the data analysis some suggestions/recommendations are presented, contributing to improve the implementation of the curricular restructuring in progress and the enhancement of learning of the Timorese students.

Besides this first section, which introduces the recent curricular reorganization of the secondary education in East Timor and presents a brief theoretical framework on the concept of learning and the importance of the learning environment, this article is structured into three more sections: the following section presents the methodological framework that underpins this article, introducing the deployed data collection instruments and the adopted procedures; the third section presents the results obtained; and, finally, the fourth section reflects on the contribution of these results to assess the impact of curricular restructuring on Timorese students' learning and to improve its implementation in East Timor.

## Methodology

### Data collection and analysis

In order to fulfil the aim of this article, the analysis of the data collected by the different instruments used during the development of the project was performed, specifically two questionnaires applied to Timorese students in different occasions and with different objectives: the first aimed to describe and analyse how the implementation of the new general secondary education curriculum was taking place in the perspective of the students (Cabrita et al., 2015a) and the second one aimed to evaluate the short-term impact of the implementation of the new curriculum on the conceptions of learning and the students' study habits (Cabrita et al., 2015b). The questionnaires were administered at different periods: the first one (Q1) in May-June 2014 and the second one (Q2) in October 2014. The collected data undergone a statistical analysis, supported by the software Statistical Package for Social Sciences (SPSS).

### Participants in the study

In order to present a characterization of the sample to which the questionnaires were applied, Table 1 summarizes the distribution of students by questionnaire (Q1 and Q2), according to their schools and corresponding districts.



**Table 1:** Distribution of the surveyed students (Q1 and Q2) according to schools and districts

		Students (Q1)	Students (Q2)
<b>Díli</b>			
Public	ES4SET	19.2%	11.6%
	ES12NOV	13.4%	12.6%
	ES28NOV	9.7%	0.0%
Private	CPVI	10.5%	14.0%
	SM	9.4%	7.4%
	ESSMC	9.4%	7.4%
<b>Liquiçá</b>			
Public	ESPL	7.3%	13.0%
Private	ESCSJB	8.9%	14.0%
<b>Ermera</b>			
Public	ESNKS	10.0%	13.0%

In the first questionnaire, 381 Timorese students were inquired. Respondents have, on average, 18 years old, being 46.2% male and 51.2% female (2.6% did not answer or had an invalid response to this question). In the second questionnaire 215 Timorese students were surveyed. They had an average age of 17.7 years old; 45.1% were male and 54.9% were female.

Taking into consideration the different schooling years, the distribution of respondents according to the area of studies is presented in Table 2.



**Table 2:** Distribution of the surveyed students (Q1 and Q2) according to the area of studies and school year

Schooling year		Students					
		10 <sup>th</sup> grade		11 <sup>th</sup> grade		12 <sup>th</sup> grade	
Questionnaire		Q1	Q2	Q1	Q2	Q1	Q2
Area of studies	ST	54.5%	71.4%	43.3%	90.7%	73.1%	80.2%
	SSH	45.5%	28.6%	54.4%	8.0%	25.8%	19.8%

In the first survey, 73.2% of the respondents attended the 12<sup>th</sup> grade, 23.6% were in the 11<sup>th</sup> grade and 2.9% in the 10<sup>th</sup> grade. 65.6% of the students integrated the area of study of Science and Technology and 33.1% attended the component of Social Sciences and Humanities. In the second questionnaire, 42.3% attended the 12<sup>th</sup> grade, 34.9% were in the 11<sup>th</sup> grade and 22.8% in 10<sup>th</sup> grade. 81.9% of the respondents integrated the ST component of studies and 17.7% the SSH.

## Results

### Students' perspective on curricular restructuring

As aforementioned, students were inquired by questionnaire (Q1) in order to collect data that would allow understanding their perceptions on the changes resulting from the implementation of the new curriculum of the general secondary education in East Timor. This section tries to summarize the results regarding the perceptions of the Timorese students on the changes in terms of the curricular plan, the student handbook, educational resources and teaching practices.

#### Curricular plan

Most students (83.2%) – especially the ones in the 12<sup>th</sup> grade (87.1%) – are aware of the changes made in the general secondary education in 2012, with the main perceived changes related with the curricular plan and the syllabus of the disciplines being associated with the existence of different study areas (95.3%: 94.8% of ST students and 96% of SSH students | 81.8% of the 10<sup>th</sup> grade students, 93.3% of the 11<sup>th</sup> grade students, 96.4% of the 12<sup>th</sup> grade students); the distribution of the disciplines by study areas (84.5%: 84.4% of ST students and 84.9% of SSH students | 81.8% of the 10<sup>th</sup> grade students, 83.3 % of the 11<sup>th</sup> grade students, 84.9% of the 12<sup>th</sup> grade students); and changes in the contents taught in the disciplines (79%: 75.6% of ST students and 86.5% of SSH students | 72.7% of 10<sup>th</sup> grade students, 77.8% of 11<sup>th</sup> grade students, 79.6% of 12<sup>th</sup> grade students). Thus, students feel that the new curriculum gave them the ability to choose the component that they wish to pursue (Science and Technology or Social Sciences and Humanities).



Overall, the changes are best perceived by students attending higher educational levels, as most of them had already been the target of these changes in previous school years.

## Student handbook

Most students recognize that changes in the new curriculum involved the use of new textbooks (84.8%) and a change in terms of the language in which they are written (78.5%). These changes are more visible to ST students (87.2% vs. 61.1%) and the ones attending the 12<sup>th</sup> grade (89.6%).

In the beginning of the 2014 school year, most of the students had already the handbooks of the disciplines (74.8%), especially the students in the 10<sup>th</sup> grade (81.9%) and 11<sup>th</sup> grade (90%); only 69.5% of the students in the 12<sup>th</sup> grade possessed these educational resources. Regarding the area of studies, it was observed that almost all SSH students (92.9%) had the handbook and only 65.6% of ST students had this resource at the beginning of the school year.

Compared to the old curriculum, the frequency with which the handbook is used by students is considerably higher. Prior to the restructuring of the secondary education, the percentage of students who used it frequently or always was only 33.9%, and with the new curriculum that percentage had almost doubled (56.7%). Albeit small, it should be noted the share of students who stated that had never used the handbook (5.8%), in contrast to 20.2% in the old curriculum.

Taking into account the schooling year, the percentage of students who never used/use it is higher in the upper levels, especially in the 12<sup>th</sup> grade (80.5% in the old curriculum, 68.2% in the new curriculum). Regarding the area of studies, it was observed that, before the restructuring, 29.2% of ST students never used the handbook, in contrast to only 3.2% of SSH students. Currently, this difference is not so wide (3.4% of ST students vs. 2.4% of SSH students), however it is noteworthy that 62.7% of SSH students always use the handbook, whereas only 33.2% of ST students do so.

The student handbook is primarily used in school, with a very small number of students working with this educational resource at home. Most students (88.4%) use it exclusively at school, in the classroom or in the library; 9.5% use it at home and at school (all ST students); and 1% use it only at home (all ST students).

It is possible to conclude that students use it essentially to follow what the teacher is reading or explaining (88.7%), to study (85.8%), to clarify doubts (84.8%), to summarize the topics taught in class (83.5%) and to do review exercises (82.4%). Additionally, it is also used to search for information (78%), to do group work (77.2%) and to carry out activities that the teacher requests (71.7%). On the whole, the handbook is used so that students learn the topics taught by the teachers, who use it as a guide of pedagogical practices and of the adopted teaching sequence.

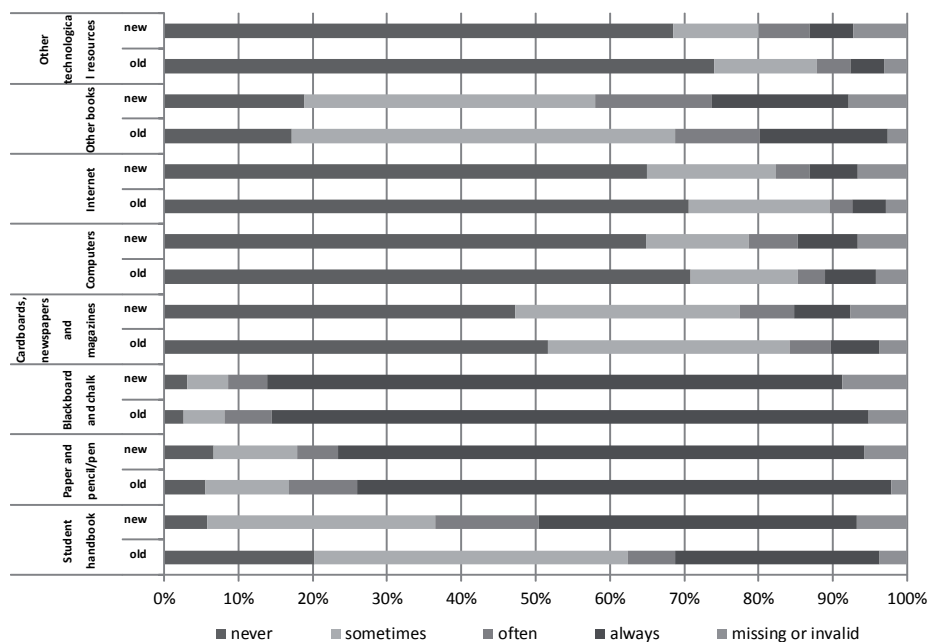
From the results of the first questionnaire, it is possible to identify some difficulties in the use of handbooks experienced by students in higher educational levels (especially in the 12<sup>th</sup> grade), which can be partly explained by the fact that these resources have been prepared in a later stage and their availability at schools was possible only afterwards.

## Educational resources

More than half of the students (51.2%) claimed to have felt no changes in terms of using other educational resources. This share is higher for students attending the ST area of study (60.3% vs. 47.3%



in SSH) and for 12<sup>th</sup> grade students (56.6%).



**Figure 1:** The use of educational resources by students in the old and the new curriculum

The frequency with which students use the various educational resources has changed after the implementation of the restructuring of the secondary education (Figure 1). The biggest changes relate to the use of the student handbook. In the previous curriculum, a greater percentage of ST students never used it (29.2% vs. 3.2% of SSH students), and after the restructuring 33.2% use it always (vs. 62, 7% of SSH students).

### Pedagogical practices

Students recognize that the implementation of the new curriculum has introduced changes in terms of teaching and learning strategies implemented by teachers (83.7%), particularly ST students (91.2% vs. 69.8% of SSH students) and students attending the 12<sup>th</sup> grade (86%). Other observed changes relate with how the syllabus is taught (70.9%) and with the language used by teachers during classes (60.6%). Changes in the way the course contents are transmitted to students is mostly perceived by SSH students (73.8% vs. 69.2%) and 10<sup>th</sup> grade students (81.8%). The language used in the classroom by the teacher is more emphasized by students attending the 10<sup>th</sup> (72.7%) and 11<sup>th</sup> (83.3%) grades, and is mentioned in a similar way by students of the different areas of studies.

Changes in terms of the execution of experimental or laboratory work was only mentioned by 27.6% of the students. Taking into account the area of studies, it appears that this change is more perceived





by SSH students (54%), in contrast to only 14% of ST students. In terms of the schooling year, there are no major differences observed, however the largest percentage is registered in the 11<sup>th</sup> grade students (33.3%).

Out of the students that completed the questionnaire, 68.8% reported that there were no changes in terms of performing experimental or laboratory work, which may indicate difficulties in implementing some activities provided for the new curriculum. Regarding the area of studies, it appears that this difficulty is mostly perceived by ST students (83.6%), in contrast to only 39.7% of SSH students. This can be explained by the different nature of the disciplines of each area of studies and the respective planned activities.

Much of the surveyed students acknowledged that the new curriculum contributed to the existence of changes regarding the evaluation made by teachers (74.5%), especially ST students (82.8% vs. 58.7% of SSH students) and students attending the 11<sup>th</sup> grade (86.7%).

## Students' conceptions about learning

The meaning that Timorese students attach to learning is summarized in Table 3. It can be concluded that students especially highlight aspects related with the construction and reproduction of knowledge and with the development and use of attitudes and values: *create/form my own knowledge* (53.0%), *say/repeat information transmitted by the teacher* (49.3%) and, *ex aequo, develop and make use of attitudes and values in solving new situations* (43.3%). Less valued by the students was the application of knowledge and skills: *use the developed capabilities in the resolution of new situations* (22.3%) and *apply the acquired knowledge in the resolution of new situations* (26.5%).

**Table 3:** Students' conceptions on the meaning of learning

	Yes	No
Say/repeat information transmitted by the teacher	49.3%	43.3%
Create/form my own knowledge	53.0%	39.5%
Apply the acquired knowledge in the resolution of new situations	26.5%	65.6%
Expand/improve my skills in problem solving, communication, use of technology, group work	34.9%	57.7%
Use the developed capabilities in the resolution of new situations	22.3%	70.2%
Develop attitudes and values	43.3%	49.3%
Make use of the developed attitudes and values in solving new situations	43.3%	49.3%
Others	3.7%	88.8%

The activities that students point out as the most important ones for their learning are: presentation and discussion of the resolution of assigned tasks (45.3%), questions asked by students (40.5%) and, consistent with the results on the meaning of learning, oral presentation of the topics (by the teacher) followed by solving exercises (by the student) (33.5%) and, subsequently, problem solving (30.7%) (Table 4).



Laboratory experiments, the use of information and communication technologies, and the exploration of computer applications are not regarded, by the students, as important for their learning. Activities that they less value in the learning process are related to learning through films (2.3%), through radio or television (6.0%), through visits to museums (6.0%) and exploration activities (2.8%).

**Table 4:** Student perspectives on the activities they consider as the most important for their learning

	Yes	No
Oral presentation of the topics (by the teacher) followed by solving exercises (by the student)	33.5%	47.4%
Reading the handbook (by the student) and comments (by the teacher)	26.0%	54.9%
Questions asked by the teacher	20.5%	60.5%
Questions asked by the students	40.5%	40.5%
Analysis of texts	23.7%	57.2%
Problem solving	30.7%	50.2%
Exploration activities	2.8%	78.1%
Research activities	19.5%	61.4%
Study visits / field trips	11.6%	69.3%
Laboratory experiments	21.4%	59.5%
Exploration of computer applications	10.7%	70.2%
Use of information and communication technologies	12.6%	68.4%
Organisation and promotion of activities in the community	12.6%	68.4%
Make reports	8.4%	72.6%
Presentation and discussion of the assignments solutions	45.6%	35.3%
Debates	17.2%	63.7%
Solving assessment tests	27.0%	54.0%
Study the correction of the tests	14.9%	66.0%
Learn through radio or television	6.0%	74.9%
Learn through films	2.3%	78.6%
Search the Internet	13.0%	67.9%
Learn through visits to museums	6.0%	74.9%
Learn through the contact with family, friends and others	12.1%	68.8%
Others	0.5%	80.5%



Regarding the forms of work that students consider most important for their learning (Table 5), it appears that they favour individual work (32.6%) and collective work with the whole class (28.8%). Working in pairs was the least valued.

**Table 5:** Forms of work that students consider most important for their learning

Individual work	32.6%
Working in pairs	10.2%
Wider group work	18.1%
Collective work with the whole class	28.8%
Missing	10.2%

The educational resources that students most value in their learning are the new handbook (49.3%); books, dictionaries, encyclopaedias, atlases (46.0%); and the blackboard and chalk (40.5%) (Table 6). Among the resources selected as less important for learning are the radio (1.9%); mobile phone, smartphone and tablet (3.3%); the television (3.7%); and calculators (6.0%).

**Table 6:** Educational resources that students most value in their learning

	Yes	No
Student handbook	49.3%	45.6%
Blackboard and chalk	40.5%	54.4%
Notebook and pencil	35.8%	59.1%
Other textbooks	15.3%	79.5%
Books, dictionaries, encyclopaedias, atlases,	46.0%	48.8%
Internet	27.9%	67.0%
Material for experiments	23.7%	71.2%
Posters / cardboards presented by the teacher	25.6%	69.3%
Calculators	6.0%	88.8%
Mobile phone, smartphone, tablet, ....	3.3%	91.6%
Television	3.7%	91.2%
Radio	1.9%	93.0%
Others	2.3%	92.6%

## Students' study habits

The main study habits of Timorese students are shown in Table 7. The most selected option is to do the homework (62.8%). Write summaries of the learnt topics (in addition to the homework) emerges



as the second most pointed out item, being considered by 52.1% of the students. Solving exercises (in addition to the homework) is the third most important study habit (35.3%), followed by problem solving (in addition to the homework), indicated by 29.3% of the students.

**Table 7:** Study habits of Timorese students

Do the homework	62.8%
Reading (in addition to the homework)	14.4%
Problem solving (in addition to the homework)	29.3%
Solve exercises (in addition to the homework)	35.3%
Do exploratory and research tasks (in addition to the homework)	10.7%
Search the Internet or in the library (in addition to the homework)	28.4%
Make copies of texts (in addition to the homework)	8.4%
Study in group	27.9%
Making summaries of the topics (in addition to the homework)	52.1%
Practice using the computer and the Internet	17.7%
Others	1.4%

Regarding the use of technology, it is possible to highlight the search in the Internet or in the library (in addition to the homework), pointed out by 28.4% of the students, followed by the use of computers and the Internet (17.7%).

With the exception of the option 'Others', selected by only 1.4% of the students, making copies of texts (in addition to the homework) emerges as the least preferred study habit (8.4%). It is followed by doing exploratory and research tasks (in addition to the homework), indicated by 10.7% of the students, and reading (in addition to the homework), considered by 14.4% of the respondents.

## Conclusions

Analyzing the perceptions of East Timorese students about the strengths of the new curriculum emerges the common idea that there have been changes with its implementation, especially in terms of the curricular plan and syllabus, the existence of different areas of studies (Science and Technology and Social Sciences and Humanities), the distribution of the disciplines by areas and content taught in the disciplines. Overall, the changes are more easily recognized by students attending higher educational levels, as many of the students have had these changes in previous school years.

With regard to the student handbooks, most students recognize that changes with the new curriculum involved the use of new textbooks, written in a different language than before. At the beginning of the 2014 school year, most of the students already had the handbooks of the different disciplines. Compared to the old curriculum, the frequency with which the handbook is currently used by students is considerably higher. It is used primarily in school, with a very small number of students working with this educational resource at home. On the whole, the handbook is used for students to learn the syllabus taught by teachers, who use it as guides of pedagogical practices and of the adopted teaching sequence.



Students consider that the implementation of the new curriculum led teachers to diversify and use more often educational resources (e.g., student handbook, paper and pencil/pen). However, the biggest change lies with the use of the student handbook.

In terms of teaching methods, students recognize that the new curriculum enabled the development of more interesting and diversified classes. In addition, most of the surveyed students acknowledged that the new curriculum contributed to the existence of changes in terms of how teachers evaluate them.

The meaning that most of the students attach to learning seems to be influenced by the practices that teachers advocate, who are not used to implement the type of teaching encouraged by the new curriculum guidelines, adopting the old methods which became a routine and are commonly assumed as 'transmission of knowledge' (Cabrita et al., 2015b).

There are students who value understanding and apprehending the topics of the disciplines and consider that learning means, in particular, discovering new things, creating their own knowledge, developing and making use of attitudes and values in the resolution of new situations, which reveals a critical and reflective attitude about learning. However, in general, it is difficult for students to link learning with the use of skills they develop and with the application of knowledge they acquire in solving new situations, because they still do not see themselves in that role.

Among the purposes that underlie the need to learn, students express diverse opinions, probably because there are different interests and perspectives, varying according to their family and social context. Thus, some show interest in learning because they consider that it enables them to develop their own opinion on the topics, to understand issues beyond the school context, to apply knowledge in other situations, to get on a higher education course or even to share their knowledge, while others state that it can aid in the development of the country.

However, there are factors that condition learning, even if students value it and have a desire to learn, are aware of their duties and responsibilities in the educational context, as well as express an attitude of commitment and effort towards their learning. In particular, their lack of capacity and/or foundations and/or preparation; their difficulties regarding the Portuguese language; their lack of interest in some disciplines; their low expectations towards school; and also the devaluing of education and training on the part of their parents. All these aspects can jeopardize the successful implementation of the new curriculum.

The activities that students most value in their learning are the resolution of the proposed tasks in the student handbook, raising questions in class, solving exercises in the blackboard, the development of science practices and field trips, doing the homework and activities related to reading books and studying. Apart from these, students highlight extracurricular activities, especially those involving arts, music, dance, games, sports, championships and contests. Research activities and the activities involving the visit to the cinema or a museum are the least associated with learning, perhaps because students are unaware of them, as there are no logistical conditions for their implementation.

Regarding the forms of work, students seem to be in accordance with the methodological guidelines of the new curriculum, not only highlighting the importance of individual work, which allows to reflect and think individually, but also of group work, which enables exchanging ideas and learning from the viewpoints of others. In terms of educational resources to promote their learning, students focus in the



handbook, which they find very helpful in providing support, especially to new disciplines, followed by books, dictionaries, encyclopaedias and atlases, and, lastly, the blackboard and chalk. Also the laboratories are considered essential for carrying out the necessary activities to their learning.

Studying should be an ongoing activity of great importance in the learning process of any student, implying that each student should assume their responsibility for it. Although one cannot generalize results, students who participated in the study recognize this importance and show interest for studying. The results indicate that the most common study habits are doing homework, summaries of the topics taught by teachers, and exercises and problems. They also mention searching the Internet or in the school library and the participation in study group activities. Research activities are related to looking for unfamiliar words or information on the topics in a language other than the one used in the handbook, and the sharing of opinions and knowledge that can enrich individual work.

Students' study habits are dependent upon various aspects, such as access to didactic and curricular materials, and the existing conditions in school and at home. Currently, for the most part of the cases, the access to handbooks is limited to the school and in a restricted manner, given that not all schools have them available, or a library or other physical space in which the students can check them. In addition, the access to other learning materials is reduced, wherefore the students' study activities are often based on what they copy from the information the teachers write in the blackboard in class or on the summaries that they make when they have access to the handbooks. Reading and memorizing, as well as doing exercises and solving problems that have already been solved in class, are also common habits of study.

Most schools in East Timor, even those who have a library, do not provide a very favourable studying environment, especially due the lack of materials, equipment and conditions. Since it is not possible to know the prevailing conditions in the students' homes, results suggest that only a few have access to the handbooks, and when this happens they enjoy them for a limited time, as they are borrowed temporarily. Some have only photocopies, but this only applies to students whose families can afford obtaining them. The existence of and/or access to other learning materials, such as dictionaries and other textbooks, is virtually non-existent. Only a few students possess, for example, computer and Internet at home or are able to access online via mobile phone.

The analysis of results allows explaining the perceptions of the Timorese students about the ongoing curriculum restructuring and on its impact in their learning and study habits, aiming to provide input to help improving the implementation of the new curriculum in East Timor. To improve its implementation it is relevant to:

- invest in the continuous training of teachers, so that they are able to implement more readily the new curriculum;
- develop, disseminate and implement education valorization measures by the whole school community;
- create opportunities for discussion in school the meaning of learning;
- promote opportunities for discussion and implementation of diversified study strategies;
- implement forms of stimulation so that students recognize the importance of continuous learning;
- create conditions (for example, physical spaces – libraries and laboratories – and material resources) for students' continuous learning, in formal and non-formal contexts.



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