

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

**Improving Efficiency of Schooling in the Maldives:  
Is De-shifting a Desirable Policy Direction?**

A thesis presented in partial fulfillment of the requirements for the  
degree of  
Masters of Arts in Economics at Massey University,  
Palmerston North,  
New Zealand.

**Aishath Sheryn  
2011**

## COPYRIGHT

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

## Abstract

Education, a vital component of human capital, is essential for the growth of nations. Developing countries, faced with limited resources and budget constraints, adopt strategies that they believe will improve access to education and at the same time reduce costs. This thesis explores the desirability of one such policy option, double-shift schooling, with respect to de-shifting, its reverse policy. Whether de-shifting is a desirable policy direction is assessed, based on other countries' experiences, alternative strategies and the current education situation in the Maldives, a country presently under this transition. Some of these alternative strategies are explored for their effectiveness in improving the quality of education.

In the case of the Maldives all schools were operating a double-shift system prior to 2009 and the government is now attempting to convert all schools to single-shift, by the end of 2013. Although the Maldives has achieved 100 per cent enrolment at primary school level, this access has not been transferred to secondary level. Statistics indicate low levels of achievement at all stages of education. The education situation in the atolls is of particular concern, where the majority of schools suffer from a lack of locally trained teachers and learning resources.

In general, it has been found that double-shift schooling does not affect the academic standards of students. However, several costs, both direct and indirect, tend to make the quality of education in double-shift schools *appear* to be inferior, in comparison to single-shift schools. De-shifting, which involves large costs, does not guarantee an improvement in the quality of education, since there are several other factors which significantly affect academic performance.

For the Maldives, findings from the study indicate that in addition to the high costs involved, scarcity of land, may affect the progress of de-shifting. The attitude of teachers, whose working day is lengthened without financial compensation, is also a concern. Moreover, there are other areas within the education sector which are greatly in need of immediate investment. These include, improving access and equity at secondary level, especially in the atolls, and improvement in the training of local teachers. Unless such aspects are addressed, de-shifting, although desirable in the long run, may fail to deliver the benefits that it claims.



## **Acknowledgements**

First and foremost I thank Almighty Allah for blessing me with the strength and courage to complete this thesis. Next, I am indebted to the many people who have supported and guided me throughout this thesis.

I would like to thank the New Zealand International Aid and Development Agency (NZAID) for awarding me a scholarship to undertake my master's degree. I thank Massey University for selecting me as a capable applicant for the NZAID scholarship and thereby, offering me the prestigious opportunity to follow an academic experience in New Zealand. A special thank you to Massey University NZAID officials, especially Mrs. Olive Pimentel and team leader, Mrs. Sylvia Hooker, for their continuous help and support

I am very grateful to my chief supervisor, Mr. Stuart Birks, for his precious time and comments on my thesis and for believing in me and encouraging me throughout this thesis. His support and understanding, especially through times of downturn will always be appreciated. I also thank my second supervisor, Emeritus Professor Wayne Edwards, for his valuable contribution and corrections. Thanks are also due to Associate Professor, Rukmani Gounder for the helpful suggestions.

I would like thank the heads of schools that responded to my emails and those who facilitated it especially Abdul Raheem Hassan.

My special thanks go to my friends in Palmerston North, who have made me and my family's stay in New Zealand a memorable one. This goes to Ali, Shihan, Arifa, Mary, Rifu and their families. Special thanks to my friends in Maldives and New Zealand who shared their expertise and time, in helping me with the thesis, especially Masko and Matheen.

My sincere appreciation to Julia Rayner, for helping me to write exactly what was in my mind and also to Godfrey Kleinhans, Former Chief Education Planner in the Kara Region of Education, Namibia, for providing me with important research materials.

I am tremendously grateful to my mother for laying the foundation of education for me and for always being there for me, with her endless love, support and prayers. Thanks

are also due to my mother-in-law, for her continuous prayers. I also thank my family in the Maldives for their love and support especially my sister, Dhontha.

My special thanks go to my precious sons Khalaf (*Dhombe*) and Khazin (*Kokki*) who, with their wonderful smiles and offers of help, have been the greatest inspiration behind my studies. Finally, my sincere and heartfelt thanks go to my husband, Rahman, for his love, continuous support and encouragement and for all the sacrifices he has made, so that I could study to this level.

# Table of Contents

<b>Abstract.....</b>	<b>iii</b>
<b>Acknowledgements.....</b>	<b>v</b>
<b>Table of Contents .....</b>	<b>vii</b>
<b>List of Figures.....</b>	<b>xi</b>
<b>List of Tables .....</b>	<b>xiii</b>
<b>List of Abbreviations .....</b>	<b>xv</b>
<b>1 Introduction.....</b>	<b>1</b>
1.1 Introduction and Overview.....	1
1.2 Background of the Study .....	2
1.2.1 Rationale and Purpose of the Study.....	3
1.2.2 Research Questions.....	3
1.2.3 Methodology.....	4
1.3 Background of the Maldives.....	5
1.3.1 Country Background.....	6
1.3.2 Economic Background .....	10
1.3.3 Social Background.....	14
1.3.4 Educational Background.....	15
1.4 Organisation of the Thesis.....	20
<b>2 Double-shift Schooling: An Overview.....</b>	<b>21</b>
2.1 Introduction and Overview.....	21
2.1 Defining Double-shift Schools .....	21
2.2 Objectives Behind Implementation of Double-shift Schools.....	23
2.2.1 Educational .....	23
2.2.2 Economic .....	24
2.3 Costs of Double-shift Schooling.....	27
2.3.1 Educational Costs .....	27
2.3.2 External Costs.....	31
2.3.3 Inconvenience of the Double-shift System to its Stakeholders .....	33
2.4 Comparison Between the Two Systems .....	35



2.4.1	Comparison Between Shifts: Morning and Afternoon .....	37
2.5	Conclusion .....	39
<b>3</b>	<b>De-shifting: Issues and Experience .....</b>	<b>41</b>
3.1	Introduction and Overview .....	41
3.2	Economic Overview of the Countries' Cases .....	41
3.3	Objectives Behind De-shifting .....	43
3.4	Costs and Constraints of De-shifting .....	44
3.5	The Course of De-shifting .....	46
3.6	Outcome .....	48
3.7	Means of Utilising Extended School Time .....	50
3.7.1	Reforming the Curriculum .....	50
3.7.2	Attention to Students from Low Socio-Economic Status .....	51
3.8	Conclusion .....	51
<b>4</b>	<b>School Time and Other Inputs that Improve Student Performance .....</b>	<b>55</b>
4.1	Introduction and Overview .....	55
4.2	Analysis of School Time .....	56
4.2.1	School Time as a Major Variable Affecting Academic Performance .....	56
4.2.2	Economics of School Time: A Model by Levin & Tsang, (1987) .....	57
4.2.3	Effects of Lengthening the School Day .....	58
4.2.4	Structure of School Time .....	59
4.3	The Importance of Schooling Variables and Other Inputs .....	61
4.3.1	School Inputs: Teachers and Instructional Technology .....	62
4.3.2	Peers .....	65
4.3.3	Parents .....	67
4.3.4	Time-out-of-school .....	67
4.4	Structural Reforms .....	70
4.4.1	Decentralisation in Education .....	71
4.4.2	Privatisation in Education .....	73
4.5	Conclusion .....	74
<b>5</b>	<b>Application to the Maldives .....</b>	<b>77</b>
5.1	Introduction and Overview .....	77
5.2	Double-shift Schooling in the Maldives .....	77
5.3	Structure of Double-shifts .....	78

5.4	Objectives behind De-shifting .....	79
5.4.1	Improving the Academic Performance .....	80
5.4.2	Reducing Private Tuition .....	82
5.4.3	Reducing Juvenile Crime .....	82
5.4.4	Reducing Unemployment .....	83
5.5	Current Progress and Challenges .....	84
5.5.1	Progress .....	84
5.5.2	Challenges .....	87
5.6	Variables that Affect Quality of Education .....	89
5.6.1	Teachers, Classrooms, Basic Facilities and the Use of Instructional Technology .....	90
5.6.2	Parents, Peers and Use of Time-out-of School .....	93
5.7	Is the Transition Justifiable? .....	97
5.7.1	Drawing on the Country Cases .....	97
5.7.2	Analysis of the Objectives Behind De-shifting .....	98
5.8	Conclusion .....	100
<b>6</b>	<b>Conclusion .....</b>	<b>101</b>
6.1	Introduction and Overview .....	101
6.2	Main Findings .....	101
6.3	Policy Implications .....	104
6.4	Limitations .....	105
6.5	Future Research .....	105
6.6	Conclusion .....	106
	<b>Appendices .....</b>	<b>107</b>
	Appendix A: Approval from Massey University Human Ethics Committee .....	107
	Appendix B: Information Sheet .....	108
	Appendix C: Approval from the Ministry of Education of Maldives .....	111
	Appendix D: Single Session Schools, 2009 .....	112
	<b>References .....</b>	<b>115</b>



## List of Figures

Figure 1.1: Map of the Republic of Maldives.....	7
Figure 1.2: An aerial view of Male', the capital of the Maldives.....	9
Figure 1.3: The growth rate of Gross Domestic Product, 1997 to 2010.....	11
Figure 1.4: Growth trends of working age population, labour force and unemployment, 1985 to 2006.....	13
Figure 1.5: Education system at school level .....	16
Figure 3.1: GDP per capita of the country cases (at current US\$) .....	42
Figure 4.1: Structure of school time .....	59
Figure 5.1: Net enrolment rate by level of education, 1998 to 2008 .....	78
Figure 5.2: Results of diagnostic test, 2008, Grade 4.....	80
Figure 5.3: Results of diagnostic test, 2008, Grade 7.....	81
Figure 5.4: Pass percentage of students at Cambridge IGCSE 2008, 2009.....	81
Figure 5.5: Total number of schools and single shift schools by atoll, 2009 .....	85
Figure 5.6: Model of a new seven-storey school building.....	88
Figure 5.7: Open structure of classrooms .....	92



## List of Tables

Table 1.1: Number of islands by population size .....	8
Table 1.2: Types of schools and their enrolment levels .....	17
Table 1.3: Percentage of local and expatriate teachers at different levels of education, 2008 .....	18
Table 1.4: Percentage of trained, untrained and temporary teachers at different levels of education, 2008 .....	19
Table 2.1: Percentage savings in capital and recurrent costs as a result of the implementation of double-shift schools .....	25
Table 2.2: Comparing the average weekly instructional time (in hours and minutes) in single-shift and double-shift schools, in 20 countries .....	28
Table 2.3: Countries' cases where DSS did not affect performance level .....	35
Table 3.1: Country cases: Objectives behind de-shifting .....	43
Table 3.2: Countries' cases: Costs of de-shifting .....	45
Table 3.3: Countries' cases: Process of de-shifting .....	46
Table 5.1: Changes in school timetable .....	86



## List of Abbreviations

ALT	Academic Learning Time
CHSE	Centre for Higher Secondary Education
DSS	Double-Shift schooling
ELT	Extended Learning Time
FE	Faculty of Education
FSD	Full-School Day
GDP	Gross Domestic Product
GS	Ghiyasuddin School
HDI	Human Development Index
HSC	Higher Secondary Certificate
IGCSE	International General Certificate School Examinations
LDC	Least Developed Countries
IMF	International Monetary Fund
LDC	Least Developed Countries
MCHE	Maldives College of Higher Education
MDGs	Millennium Development Goals
MCHE	Maldives College of Higher Education
MPND	Ministry of Planning and National Development
MOE	Ministry of Education
NER	Net Enrolment Ratio
OECD	Organisation for Economic Cooperation and Development
PD	Professional Development
PPP	Public-Private Partnership
SBM	School Based Management
SES	Socio-Economic Status
SOEs	State Owned Enterprises
SSC	Secondary School Certificate
SSS	Single-Shift Schooling
UNDP	United Nations Development Programme
UPE	Universal Primary Education
USA	United States of America