

MULTIPURPOSE STUDY TABLE USING BLOCKBOARD

NUR SYUHADA AMIRA MOHD SARIPUDIN

**Final Year Project Report Submitted in
Partial Fulfilment of the Requirements for the
Degree of Bachelor of Science (Hons.) Furniture Technology
in Faculty of Applied Sciences
Universiti Teknologi MARA**

JULY 2014

ACKNOWLEDGEMENTS

Assalamu'alaikum warahmatullah wabarakatuh

First and foremost, all praise to be Allah, the Almighty, the Benevolent for His blessings and guidance for giving me the inspiration to embark on this Final Year Project (FYP) and instilling in me the strength to see that this FYP becomes reality. Many people have contributed to the creation and completion of this FYP. I would like to express my gratitude to all who have helped in one way or another in planning, brainstorming, writing and editing stages of this FYP and gave me the possibility to complete this thesis.

At this moment of accomplishment, special thanks to my supervisor Madam Junaiza Ahmad Zaki for their guidance and encouragement over the duration of my research. This work would not have been possible without her guidance, support and encouragement. I would like to thanks for my co-supervisor, Dr Mohd Noor Azman Othman because spend time to correct the grammar and offering suggestions for improvement my thesis and also thanks my second co-supervisor En. Suffian Abd. Jalil for all him help, support, interest, value hints and teach me costing.

I am also extremely indebted to my project coordinator, Associate Prof. Dr Wan Mohd Nazri Wan Abdul Rahman , who always show the right way and encouraged me to go ahead with my thesis and also their stimulating support. I also thank to my Head of Programme , En.Amran Shafie for the guidance.

Highly appreciate to the staff of B.sc. (Hons) Furniture Technology and FiTEC, thank for all of your kindness. Because of all your kindness, my thesis becomes smooth and easy.

Last but not last, my special gratitude to my beloved family for their unconditional support, both financially and emotionally throughout my degree. For all people that always give me strength and all of your kindness, i really appreciate it. May Allah bless you. Most sincere thanks also go to my friends for their support and friendship. Especially I am obliged to my group members Suhaizah and Aida Suzana for their assistance machinery. I would also like to extend my appreciation to Miss Zuhaila Khalid for guidance at the thesis proposal for English style and grammar, correcting both.

Finally, I do apologize if I had committed an offense to all parties whether involved or not in the final project work. If I have failed to mention someone, I'm sincerely apologizing.

TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS	iii
TABLE OF CONTENTS	iv
LIST OF TABLE	vi
LIST OF FIGURES	vii
LIST OF ABBREVIATIONS	ix
ABSTRACT	xii
ABSTRAK	xiii
CHAPTER 1 INTRODUCTION	
1.1 General	1
1.2 Problem Statement	3
1.3 Justification	4
1.4 Objective	4
CHAPTER 2 LITERATURE REVIEW	
2.1 Furniture Industry	5
2.2 Design of Furniture	6
2.3 Types of Furniture Style	7
2.4 Multipurpose Furniture	9
2.5 Table	9
2.6 Ergonomics and Anhtropometric Aspects of Furniture Design	10
2.6.1 Ergonomics	11
2.6.2 Anthropometric	13
2.7 Solid Wood material	13
2.8 Wood Panel Product	14
2.8.1 Blockboard	14
2.8.1.1 Uses of Blockboard	15
CHAPTER 3 METHODOLOGY	
3.1 Chart of Furniture Production	17
3.2 Design Process	18
3.2.1 Sketching the Product Design	18
3.3 Mock-Up Preparation	21
3.4 Prototype	22
3.4.1 Prototype Preparation	23
3.4.1.1 Material Preparation	23
3.4.1.2 Manufacturing Process	23
3.4.1.3 Assembling Process	24
3.4.1.4 Prototype Analysis	24

3.5	Realized Process	25
3.5.1	Cutting Process	25
3.5.2	Assemble Process	25
3.5.3	Edging Process	26
3.6	Manufacturing Product Design	26
3.7	Bill of Material	28
3.8	Part List	29
3.9	Material	30
3.9.1	Screw	30
3.9.2	L-Corner Joint	30
3.9.3	Shelf Pin	31
3.9.4	Hinges	31
3.9.5	Hinges Shelf Support	32
3.9.6	Drawer Slices	32
3.9.7	PVC Edge Banding	33
3.9.8	Contact Adhesive	33
CHAPTER 4 EXPECTED RESULT		
4.1	Statistical Analysis of Multipurpose Study Table	36
4.1.1	Design of Multipurpose Study Table	38
4.1.2	The Suitability of Material (Blockboard)	39
4.1.3	Attractive of the Product	40
4.1.4	Ergonomic Concept	41
4.1.5	Suitability for Small Living Space	42
4.1.6	Product Multifunctional	43
4.1.7	Commercialized of the Product	44
4.1.8	Evaluation of Product as Multipurpose Study Table	45
4.1.9	Availability of Product in Market	46
4.1.10	Suitable Price for Multipurpose Study Table	47
CHAPTER 5 CONCLUSION AND RECOMMENDATIONS		
5.1	Conclusion	48
5.2	Recommendation	49
REFERENCES		50
APPENDICES		53
CIRCULUM VITAE		78

ABSTRACT

MULTIPURPOSE OF STUDY TABLE BY USING BLOCK BOARD

The designing phase is the basis of producing high quality finished products. This phase is the first step to ensure the performance and function of the product. This research was conducted to investigate the design of a multipurpose study table using blockboard. The data were analysed using SPSS based on the questionnaire distributed to 100 respondents from UiTM(Pahang) staffs, students and others. Most of the respondents gave a positive feedback to the design of multipurpose study table, suitability of material, attractiveness of the product, ergonomics concept, small living space adaptability, multi functionality concept and marketability of the product. Overall the multipurpose study table made of blockboard was accepted by all respondents regardless of genders, ages and professions.