

TABLE OF CONTENTS

COVER.....	i
HALAMAN PERSETUJUAN	ii
PERNYATAAN	iii
ACKNOWLEDGEMENT	iv
TABLE OF CONTENTS.....	v
LIST OF TABLES	viii
LIST OF FIGURES	ix
ABSTRACT.....	x
CHAPTER I INTRODUCTION.....	1
1.1. Background	1
1.2. Problem Statement	3
1.3. Problem Scope	4
1.4. Research Novelty	4
1.5. Research Purpose	9
1.6. Research Contribution.....	9
1.6.1. Academic Contribution.....	9
1.6.2. Practical Contribution	9
CHAPTER II LITERATURE REVIEW	8
2.1. Related Work	8
2.1.1. The First Wave of Persuasive Games Validation Research	8
2.1.2. The Value-Added approach for Persuasive Games' Effectiveness	11
2.1.3. Game Loss as Potential Factor for Persuasive Games' Effectiveness.....	12
2.2. Theoretical Background	14
2.2.1. Persuasive Games	14
2.2.2. Persuasion Mechanism in Persuasive Games	16
2.2.3. Persuasion Strategies in Persuasive Game.....	17
2.2.4. Donating Behavior	20
2.2.5. Game Win and Loss.....	20
2.2.6. Unwinnable Games	22
2.2.7. Frustration	22
2.2.8. Serious Experience	24
2.2.9. Appreciation.....	25

2.2.10.	Reflection	26
2.2.11.	Debriefing	27
2.2.12.	Surprising Events	28
2.3.	Research Question.....	29
2.4.	Hypotheses Development.....	30
CHAPTER III RESEARCH METHODOLOGY		32
3.1.	Research Procedure	32
3.2.	Game Development.....	33
3.2.1.	Experimental Manipulation	34
3.2.2.	Survey of Young People's Game Preferences	38
3.2.3.	Persuasion Outcome and Core Message	40
3.2.4.	Persuasion Strategy	41
3.2.5.	Gameplay Design.....	42
3.2.6.	Game Aesthetics	43
3.2.7.	Game System	45
3.3.	Game Testing	49
3.3.1.	Background	49
3.3.2.	Participants.....	49
3.3.3.	Game Setup.....	50
3.3.4.	Measures	50
3.3.5.	Experimental Procedure.....	51
3.3.6.	Result	52
3.3.7.	Discussion	53
3.3.8.	Conclusion	54
3.4.	First Experiment Method	54
3.4.1.	Design	54
3.4.2.	Game Setup.....	55
3.4.3.	Measures	55
3.4.4.	Experimental Procedure.....	57
3.5.	Second Experiment Method.....	58
3.5.1.	Design	58
3.5.2.	Game Setup.....	59
3.5.3.	Measures	59
3.5.4.	Experimental Procedure.....	61
CHAPTER IV RESULT AND DISCUSSION.....		63

4.1.	First Experiment.....	63
4.1.1.	Participants.....	63
4.1.2.	Results.....	63
4.1.3.	Discussion.....	66
4.1.4.	Conclusion	70
4.2.	Second Experiment	70
4.2.1.	Participants.....	70
4.2.2.	Results.....	71
4.2.3.	Discussion.....	74
4.2.4.	Conclusion	77
4.3.	Recommendation For Unwinnable Persuasive Games Designer.....	77
4.4.	Limitations	79
CHAPTER V CONCLUSION.....		82
5.1.	Conclusion.....	82
5.2.	Recommendation for Future Works.....	83
REFERENCE.....		84

LIST OF TABLES

Table 2.1. Persuasion Strategies in Structure of Persuasive Dimension	18
Table 3.1. Distribution of Game Genre by Respondents' Gender.....	39
Table 3.2. Distribution of Game Mechanic by Respondents' Gender.....	40
Table 3.3. Descriptive Statistics for all Test Conditions	52
Table 3.4. Pearson's Correlation of Dependent Variables and Covariates.....	52
Table 3.5. Result from Analysis of Covariance.....	53
Table 4.1. Descriptive Statistics for Dependent Variables and Covariates	64
Table 4.2. Spearman Correlation of Dependent Variables and Covariates	64
Table 4.3. Result from Analysis of Variance with Aligned Rank Transform	65
Table 4.4. Descriptive Statistics for Dependent Variables and Covariates	71
Table 4.5. Spearman Correlation of Dependent Variables	72
Table 4.6. Result from Analysis of Covariance with Aligned Rank Transform	72

LIST OF FIGURES

Figure 1.1. Fishbone Diagram of Research Novelty	7
Figure 2.1. Simplified Player-Oriented Persuasive Game Elaboration model	16
Figure 2.2. Persuasive Game's Structure of Persuasive Dimension	18
Figure 2.3. Persuasion Strategies in Persuasive Game	20
Figure 2.4. The Usage of Narrative to Reframe Negative Frustration	24
Figure 2.5. Simplified Dual-Process Model of Experience Appraisal	25
Figure 2.6. Example of Surprise Discourse Structure	28
Figure 3.1. Research Procedure	32
Figure 3.2. The Game's Concept Creation Procedure	34
Figure 3.3. Difference in Players' Progress After Certain Time Limit	35
Figure 3.4. Simplified Model of The Level of Difficulty Structure	37
Figure 3.5. Automatic Creation of New Level	37
Figure 3.6. Surprise and No Surprise Condition	38
Figure 3.7. The fishing area implemented in the game.	42
Figure 3.8. Design of the Start Page	44
Figure 3.9. Design of the Fishing Zone	44
Figure 3.10. Design of the Information Text	44
Figure 3.11. Game system and its effect on player's internal	45
Figure 3.12. Overall Gameplay	46
Figure 3.13. Finite state machine of the main gameplay	46
Figure 3.14. Aesthetics of the Start Page	47
Figure 3.15. Aesthetics of the Debris Zone	47
Figure 3.16. Aesthetic of the Fishing Zone	48
Figure 3.17. Information Text Implemented in the Game	48
Figure 3.18. Pilot Testing Procedure	52
Figure 3.19. Experimental Design for First Experiment	55
Figure 3.20. First Experiment Procedure	58
Figure 3.21. Experimental Design for Second Experiment	59
Figure 3.22. Second Experiment Procedure	62
Figure 4.1. Mediation Analysis Result	66
Figure 4.2. Mean Difference of Percentage of Donation	73