

**VISUAL NOVEL GAME DEVELOPMENT “IF ONLY” AS A
LEARNING MEDIA ON THE IMPACT OF BULLYING
AMONG STUDENTS**

THESIS

To fulfill one of the requirements of achieving a Bachelor’s degree

S1 – Informatika



Written by

ANGGA HANANTA

18.61.0139

To

**THE FACULTY OF INFORMATICS
UNIVERSITAS AMIKOM YOGYAKARTA
YOGYAKARTA**

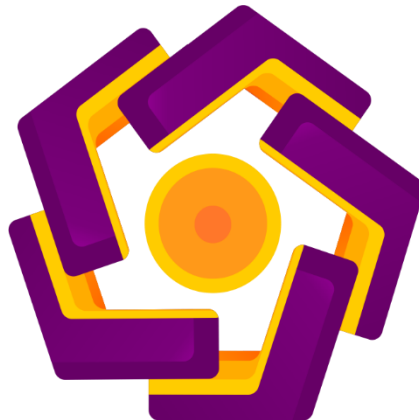
2025

**VISUAL NOVEL GAME DEVELOPMENT “IF ONLY” AS A
LEARNING MEDIA ON THE IMPACT OF BULLYING
AMONG STUDENTS**

THESIS

To fulfill one of the requirements of achieving a Bachelor’s degree

S1 – Informatika



Written by

ANGGA HANANTA

18.61.0139

To

**THE FACULTY OF INFORMATICS
UNIVERSITAS AMIKOM YOGYAKARTA
YOGYAKARTA**

2025

APPROVAL

THESIS

**VISUAL NOVEL GAME DEVELOPMENT “IF ONLY” AS A LEARNING
MEDIA ON THE IMPACT OF BULLYING
AMONG STUDENTS**

arranged and proposed by:

Angga Hananta

18.61.0139

that has been approved by the undergraduate thesis supervisor
on 24 June 2025

Supervisor,



Muhammad Fairul Filza, S.Kom., M.Kom.

NIK. 190302332

VALIDATION PAGE

THESIS

**VISUAL NOVEL GAME DEVELOPMENT “IF ONLY” AS A LEARNING
MEDIA ON THE IMPACT OF BULLYING AMONG STUDENTS**

arranged and proposed by:

Angga Hananta

18.61.0139

has been upheld against the examiners
on 24 June 2025

The Examiners

Examiner

Signature

Majid Rahardi, S.Kom., M.Eng
NIK. 190302393

Bambang Pulu Hartanto, S.Kom., M.Eng.
NIK. 190302707

Bayu Setiaji, M.Kom.
NIK. 190302216



This thesis has been accepted as one of the requirements
of achieving the Bachelor of computer science degree
on 24 June 2025

DEAN OF COMPUTER SCIENCE FACULTY



Prof. Dr. Kusrini, M.Kom.
NIK. 190302106

THESIS AUTHENTICITY STATEMENT

The undersigned,

Student Name : Angga Hananta
NIM : 18.61.0139

Declared that the thesis titled:

VISUAL NOVEL GAME DEVELOPMENT "IF ONLY" AS A LEARNING MEDIA ON THE IMPACT OF BULLYING AMONG STUDENTS

Supervisor : Muhammad Fairul Filza, S.Kom., M.Kom.

1. This thesis is genuinely **AUTHENTIC** and has **NEVER been** proposed to achieve an academic title, whether in Universitas AMIKOM Yogyakarta or any other University.
2. This thesis is **MY** ideas, formulations, and Research without any help from an external party except for my thesis supervisor.
3. In this thesis there is **no work or opinion of other people**, unless it is clearly stated in writing as a reference in the text with the author's name stated and mentioned in the Bibliography of this written work.
4. The software used in this research is entirely **MY** responsibility, not the responsibility of AMIKOM Yogyakarta University.
5. I make this statement truly if in the future there are deviations and untruths in this statement, then I am willing to accept **ACADEMIC SANCTIONS** with the revocation of the degree I have obtained, as well as other sanctions per the norms applicable in Higher Education

Yogyakarta, 26 June 2025

Stated,



Angga Hananta

DEDICATION

All praise is due to Allah SWT for His abundant grace and mercy, without which the completion of this study would not have been possible. I dedicate this work, titled *Visual Novel Game Development 'IF ONLY' as a Learning Medium on the Impact of Bullying Among Students*, with my deepest gratitude to:

- **My beloved parents**, who have raised me with endless love and patience. Thank you for your unwavering support and prayers.
- **My brother, Alan**, for his support.
- **My girlfriend, Caca**, for being my rock through all the highs and lows, and for always believing in me.
- **My close friends, Yoga and Arkan, and the entire Moebius Gaming group**, for accompanying me through moments of both joy and sorrow and making this journey memorable.

OPENING STATEMENT

All praise to Allah SWT for the grace and guidance that made the completion of this thesis possible. Salawat and greetings are extended to the Prophet Muhammad SAW. This thesis, titled *"Visual Novel Game Development 'IF ONLY' as a Learning Medium on the Impact of Bulging Among Students"*, is submitted to fulfill the requirements for the Undergraduate (S1) Informatics Program at Universitas AMIKOM Yogyakarta. The author wishes to express sincere and profound gratitude for all the invaluable assistance, support, and guidance provided, both directly and indirectly, throughout the process of completing this thesis. Special thanks are respectfully extended to:

1. **Prof. Dr. M. Suyanto, M.M.**, as the Rector of Universitas AMIKOM Yogyakarta.
2. **Prof. Dr. Kusrini, M.Kom.**, as the Dean of the Faculty of Computer Science, Universitas AMIKOM Yogyakarta.
3. **Mrs. Eli Pujastuti, M.Kom.**, as the Head of the S1 Informatics Study Program, Universitas AMIKOM Yogyakarta.
4. **Mrs. Sumarni Adi, S.Kom., M.Cs.**, as the Academic Advisor, for her guidance and support throughout my academic journey.
5. **Mr. Muhammad Fairul Filza, S.Kom., M.Kom.**, as the thesis supervisor, for his invaluable guidance during the preparation of this thesis.
6. The entire teaching staff of the **Informatics Study Program at Universitas AMIKOM Yogyakarta** for the knowledge and wisdom they have imparted.
7. All my friends in the **BCI 01 class of 2018**, who brought joy and camaraderie throughout these years of study.

Yogyakarta, 26 June 2025



Angga Hananta

TABLE OF CONTENTS

APPROVAL	iii
VALIDATION PAGE	iv
THESIS AUTHENTICITY STATEMENT	iv
DEDICATION	vi
OPENING STATEMENT	vii
TABLE OF CONTENTS	viii
LIST OF FIGURES	x
LIST OF TABLES	xi
INTISARI	xii
ABSTRACT	xiii
CHAPTER I INTRODUCTION	1
1.1 Background	1
1.2 Problem Formulation	2
1.3 Problem Limitations	2
1.4 Research Purposes	2
1.5 Research Benefits	3
1.6 Writing Schematic	3
CHAPTER II LITERATURE REVIEW	5
2.1 Literature Study	5
2.2 Theoretical Framework	11
2.2.1 Bullying In School	11
2.2.2 Visual Novel	11
2.2.3 Godot Engine	12
2.2.4 Computer Game	14
2.2.5 GDLC Development Method	15
2.2.6 ISO 9126	16
2.2.7 Likert Scale	17
CHAPTER III RESEARCH METHODOLOGY	19
3.1 Research Pipeline	19

3.2	Research Procedure.....	20
3.3	Analysis Stage.....	22
3.3.1	Data gathering.....	22
3.3.2	Data analysis	23
2.	Game reference analysis	24
3.	System requirements analysis	27
4.	Software requirements analysis	27
3.4	Design Stage	28
3.4.1	Initiation.....	28
3.4.2	Pre-production.....	29
CHAPTER IV IMPLEMENTATION AND DISCUSSION		33
4.1	Production Phase.....	33
4.1.1	Assets Design.....	33
4.1.2	Dialogic Implementation	38
4.2	Testing Phase	42
4.2.1	Alpha Testing.....	42
4.2.2	Beta Testing and Usability Evaluation.....	45
4.2.3	Release Version and Content Evaluation.....	48
4.3	Discussion	50
CHAPTER V CLOSINGS		56
5.1	Conclusions.....	56
5.2	Suggestions	58
REFERENCES		60

LIST OF FIGURES

Figure II-1 Doki Doki Literature Club.....	12
Figure II-2 Godot 2D scene	13
Figure II-3 Dialogic Timeline Editor	14
Figure II-4 GDLC Process	15
Figure III-1 Research Pipeline	19
Figure III-2 Doki Doki Literature Club	24
Figure III-3 Clannad	25
Figure III-4 Little Busters!	25
Figure III-5 Katawa Shoujo	26
Figure III-6 The Sun Shines Over Us	27
Figure III-7 Gameplay diagram	31
Figure III-8 Scenario Diagram.....	32
Figure IV-1 Main Menu UI Design Process in Photoshop	39
Figure IV-2 Main Menu UI Design Process in Godot.....	40
Figure IV-3 Character Editor in Dialogic	40
Figure IV-4 Main Timeline Editor in Dialogic.....	41
Figure IV-5 Dialogue Options in Dialogic	42
Figure IV-6 Released Version in Itch io	48
Figure IV-7 Adding Scene Select Button in Godot	54
Figure IV-8 Updated Main Menu Interface	55

LIST OF TABLES

Table II-1 Research Comparison Table	10
Table II-2 Characteristics and sub-Characteristics of ISO 9126.....	17
Table II-3 Liker Scale and Likert scale Points.....	18
Table II-4 Likert Scale Index	18
Table III-1 Research Schedule	21
Table IV-1 Character Sprite	35
Table IV-2 Buttons	36
Table IV-3 Audio SFX Assets	37
Table IV-4 Audio Music Assets	37
Table IV-5 User Interface	38
Table IV-6 Devices that will be used for black box testing.....	43
Table IV-7 Devices Testing Results	44
Table IV-8 Beta Tester Questionnaire Questions	46
Table IV-9 Usability Testing Questionnaire Questions.....	47
Table IV-10 Game Content Questionnaire Questions	49
Table IV-11 Usability Testing Questionnaire Results	50
Table IV-12 Game Content Questionnaire Results.....	52
Table IV-13 Beta Testing Questionnaire Results	53

INTISARI

Bullying merupakan masalah signifikan di sekolah yang dapat berdampak negatif terhadap kesejahteraan mental dan prestasi akademik para korban. Untuk mengatasi masalah ini, penelitian ini mengembangkan dan mengevaluasi sebuah game visual novel berjudul "If Only" sebagai media edukasi untuk intervensi pencegahan bullying di kalangan siswa Indonesia. Game ini menyajikan cerita interaktif yang berpusat pada pilihan pemain yang akan mengikuti cerita dari sudut pandang seorang siswa SMA saat menemukan temannya menjadi korban bullying, di mana narasi dan hasil cerita akan dibentuk berdasarkan keputusan yang diambil oleh pemain. Penelitian ini bertujuan untuk mengevaluasi efektivitas "If Only" dalam meningkatkan pengetahuan mengenai bullying serta menguji tingkat usabilitynya. Hasil penelitian yang didasarkan pada kuesioner terhadap 30 responden menunjukkan penerimaan yang positif dan efektivitas yang baik. Pada aspek konten game, penelitian ini memperoleh skor 77,2% yang menunjukkan bahwa "If Only" berhasil meningkatkan pemahaman pemain secara signifikan mengenai situasi bullying, potensi dampaknya, serta pentingnya pilihan orang sekitar (*bystander*). Dari segi usability, game ini meraih skor 81,8% berdasarkan standar ISO 9126, yang mengonfirmasi bahwa game ini sangat mudah dipahami (*understandable*), mudah dipelajari (*learnable*), dan mudah dioperasikan (*operable*) oleh target penggunaanya. Melalui hasil ini, penelitian ini berkontribusi pada pengembangan intervensi yang efektif dan menyoroti potensi game novel visual sebagai media yang menarik untuk mendukung pembelajaran sosial dan emosional dalam upaya mengatasi perundungan di kalangan siswa.

Kata Kunci: *Bullying, Novel Visual, Video Game, Pengembangan Game*

ABSTRACT

Bullying is a significant problem in schools that can negatively impact the well-being and academic achievement of victims. To address this issue, this research developed and evaluated the visual novel game "If Only" as an educational medium for a bullying prevention intervention among Indonesian students. The game is an interactive story that follows the choices made by a high school student who discovers a friend is struggling with bullying, with the narrative and outcomes shaped by player decisions. This study aimed to evaluate the effectiveness of "If Only" in promoting knowledge about bullying and to assess its overall usability. The research findings, based on questionnaires with 30 respondents, indicate a positive reception and effectiveness. For game content, the study achieved a score of 77.2%, showing that "If Only" significantly increased players' understanding of bullying situations, their potential harm, and the importance of bystander choices. In terms of usability, the game scored 81.8% based on the ISO 9126 standard, confirming that it is highly understandable, learnable, and operable for its target audience. By demonstrating these results, this thesis contributes to the development of effective interventions and highlights the potential of visual novel games as an engaging tool for promoting social and emotional learning to address bullying among students.

Keyword: *Bullying, Visual Novel, Video Game, game development*