

## Moral Education System: TinyHearts

**Mohd Suhaimi Md Yasin\***, **Muhammad Aiman Hakimi Mahdom**, **Muhammad Luqman Haikal Hazni**, **Nur Fiqrah Syawanie Mohamad**, **Syarifah Haziqah Alhady Syed Mohd Sadik**

*Department of Information Technology, Centre for Diploma Studies,*

*Universiti Tun Hussien Onn Malaysia, Pagoh Higher Education Hub, 84600 Pagoh, Johor, MALAYSIA*

\*Corresponding Author: [mdsuhaimi@uthm.edu.my](mailto:mdsuhaimi@uthm.edu.my)

DOI: <https://doi.org/10.30880/mari.2025.06.04.027>

### Article Info

Received: 01 September 2025

Accepted: 15 October 2025

Available online: 01 December 2025

### Keywords

Moral Education, Moral Values,  
Children, Parents, Teachers, Peers,  
Manners

### Abstract

Moral Education System: TinyHearts aims to develop a learning system that instructs users on the fundamentals of moral education, emphasizing the importance of good behaviour towards parents, teachers, and peers. This system provides children with engaging visuals and materials, as well as narration-based assessments that assess their understanding of the significance of good manners towards parents, teachers, and peers. Three (3) categories are provided for users to interact with, featuring informative educational section, educational quizzes and situational quizzes from short animation in the objective of making a system with multi-functional purpose for easier educative system. Each section emphasizes its own stronger feature which is delivering information, mindful test and indirect practical test. In summary, this system aims to restore the ethics and decorum of children. This system incorporates a learning component, which is supported by an engaging and visually appealing user interface

## 1. Introduction

Moral values are the guidelines for right and wrong that influence a person's actions and decisions [1]. When ideals strive to preserve and honour life and improve it for all people, they transform into moral principles [2]. Moral values instillation in children's lives is really important. Among these is developing a better personality, which includes being disciplined, kind, and respectful of others around you. The goal of this project is to create a site for learning that educates users about common moral principles for kids while also enhancing the content with visually appealing elements. The intention is to instill in kids the value of upholding moral principles towards their parents, educators, and peers. Interesting content will be available on the website, such as narrative quizzes, kid-friendly graphics, and a variety of moral lessons that should be taught to the intended audience. Since children are our main user base, the majority of the information and knowledge on the website will be presented in an animated format. This project aims to investigate moral values and principles in an engaging and interactive manner, utilizing visuals and colors that are appealing to children. In addition, develop an interactive system that fosters creativity and critical thinking. By incorporating exams in the form of narration, this system also motivates children to enhance their analytical skills by displaying images and videos. The subsequent objective, which is to promote moral development by assessing the user's comprehension of moral concepts and developing ethical decision-making skills among minors. Furthermore, this system is a measure to enhance children's comprehension of the importance of positive values in their lives.

Currently, the issue is that the younger generation is incapable of maintaining proper manners, particularly in the areas of respecting teachers at school, being polite to parents at home, and helping children

their own age. Only a small number of individuals are capable of providing an accurate response when asked about the virtues of parents, teachers, and friends. However, using a smartphone is linked to a number of behavioural problems. The majority of parents believe that children who are addicted to technology exhibit altered behaviour [3]. Furthermore, the research determined that contemporary children are excessively subjected to devices such as personal computers, tablets, and smartphones. The children are capable of handling any form of advanced cell phone without the necessary guidance and assistance [4]. This results in a lack of exposure to the importance of manners toward their parents, teachers, and peers, as the majority of them are influenced by negative factors. Subsequently, children demonstrate diminished enthusiasm for reading or dull reading materials, including lengthy paragraphs or text-only texts. Rather, they prefer to learn through storytelling lessons, video games, and colorful visuals. The TinyHearts system was developed to cater to the current interests of children, enabling them to acquire valuable knowledge, such as moral values, with the simple touch of their fingertips, without the need to consult physical materials like books. The values that should be applied by them since childhood can be replicated through a more engaging face display and entertainment.

## 1.1 Literature Review

Gadgets are not unfamiliar in this advanced era. It is feasible to assert that nearly everyone possesses electronic devices. More schoolchildren utilize devices for entertainment purposes [5]. According to a report by Astro Awani [6], children and teenagers spend more time with gadgets. Teenagers are now spending an increasing amount of time on social media and devices, based on this research. The survey results, which were disclosed on March 2022, indicate that the number of hours spent using gadgets has increased significantly since the pandemic. Additionally, numerous children develop an addiction to devices when they begin playing video games over the internet. This behavior is unacceptable due to the detrimental effects of video games on children, particularly in the areas of morals, ethics, and social relationships [7]. This issue is still concerning since it will continue to have a negative impact on their mental, physical, and social development [8]. It is currently established that children exhibit an interest in electronics and mass media through entertainment, amusement, and other means [7].

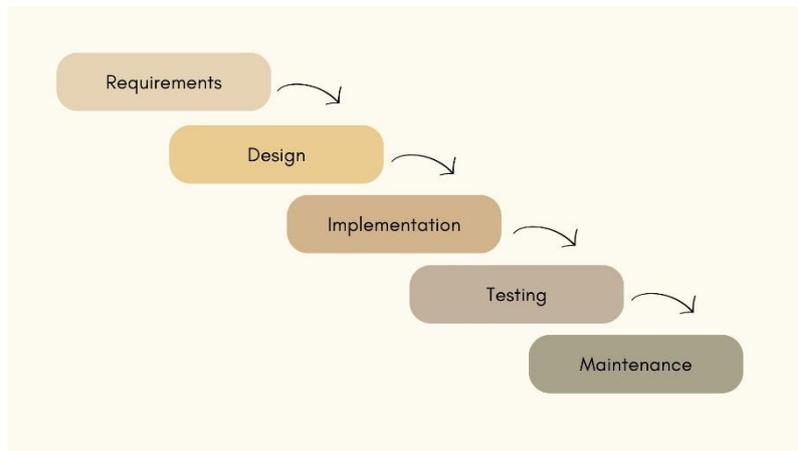
Moral education must be implemented not only in the classroom but also in the household. Individuals who are near to children are referred to as parents. Nevertheless, there are also parents who are unsure of where to draw the line when it comes to disciplining their children for inappropriate behavior [9]. Being reluctant to correct children out of concern that things may worsen since they won't be able to take it personally is a reasonable fear. Parents have a crucial role in ensuring that their children develop good morals and manners and do not turn into bad people later in life. It is critical that parents provide their kids a happy, caring atmosphere at home [10].

In a study conducted by Rahim *et al* [11], the teacher's observation of the manner in which children learn is presented in an engaging manner, such as through a form of moral education narration. Additionally, educators are accustomed to employing technology, gadgets, clothing, and facial expressions. This plainly demonstrates that visual learning materials will pique the interest of children. By incorporating visual aids into lessons, children will be more engaged with the syllabus's contents, thereby enabling the transmission of moral messages [12].

Moral education is important, particularly in the context of children's disruptive behaviour. According to a study carried out by Caroline in 2022, psychologists' observations revealed that disruptive behaviour results from a person's incapacity to adjust to changing environmental circumstances. Such conduct is regarded as dangerous both physically and psychologically and as interfering with teachers' ability to teach and learn [13], [14]. Their peers are additionally affected in as well as the teacher. It doesn't matter if friends imitate them or if friends get scared of these troublemaking kids. This is not a trivial concern; in fact, it could cause a teacher to suffer physically or psychologically.

## 2. Methodology

The Waterfall Methodology was implemented in the present study. This project will be completed in accordance with the intended objective requirements with the assistance of waterfall methodology guidelines. This methodology comprises five phases: requirements, design, implementation, testing, and maintenance. Each phase must be finished before the subsequent phase can commence in this approach. In this scenario, there will be no phase overlap. **Fig. 1** illustrates a waterfall methodology's phases.



**Fig. 1** Waterfall Model

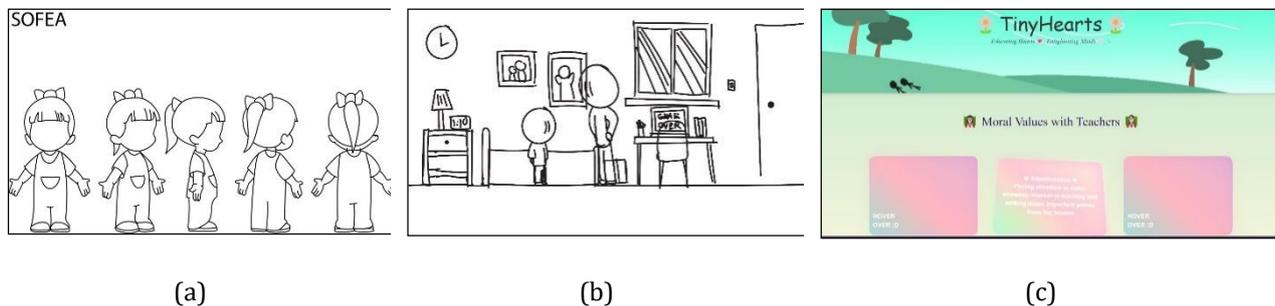
## 2.1 Requirements

During this initial stage, we are concentrating on gathering and classifying data about moral education that is delivered to kids. These kinds of things are required while developing a new system or updating an old one. In order to gather information about the moral state of children today, we used a Google Form to administer a survey to teachers and students. We then examined the data collected from the survey responses. We'll decide who our target audience is—teachers, parents, and kids. Additionally, we will decide which components are needed to operate our system. The goal of every aspect of system development is to ensure system functionality.

## 2.2 Design

We will specify all of the system's designs at this phase, including the user interface, the characters that can be used, and the background pictures. Because the core of this system is education, we shall employ a user-friendly design. We will use multiple software, including Adobe Illustrator and Adobe After Effects for graphics and animation and Xampp for system development, utilising our own design skills.

Drawings similar to those in Fig.2 (a), (b), and (c) are utilised as templates for creating the system. The sketch shows one of the characters which is Fig. 2(a). Fig.2 (b) shows an example background sketch for the story flow in this system, while Fig. 2 (c) shows an example we made for the interface for our system.



**Fig. 2** System Sketch (a) Character; (b) Background; (c) User Interface

## 2.3 Implementation

Understanding project requirements and design specifications to create a solid implementation programme, database, or website through programming and deployment is known as the implementation phase. The real code is created and compiled during this stage. PHP, JavaScript, and HTML are the programming languages utilised to create the system, and MySQL is the database. Using the data from the previous phase, this project creates a working system. There will also be some mock exams. It might be necessary to go back to the design process if a lot of modifications are needed. To ensure that the project was finished successfully, the outcomes will be examined and tested. Ultimately, an analysis is conducted on the project to ensure that it meets all project goals and requirements.

## 2.4 Testing

This phase, which is also known as verification and validation, comprises procedures that are intended to ensure that the initial performance and specifications of the project are met and that it serves its intended purpose. During this phase, system flaws and issues are identified and either corrected or redefined. The purpose of this phase is to guarantee that *TinyHearts* satisfies the criteria established in the initial phase of the life cycle. The software's compliance with the specifications is confirmed at the end of this phase. The functionality testing of the *TinyHearts* website encompasses a variety of factors, such as the user interface and fundamental website operations. It is implemented to assess the efficacy of each feature on the website. The visual elements of a website are assessed for consistency and responsiveness across various devices and browsers during User Interface (UI) testing. Functional testing, on the other hand, guarantees that each feature functions as intended by executing test cases that incorporate all functional requirements. Performance testing assesses the functionality of a website under varying loads in order to identify potential obstacles. Comprehensive assessment of the *TinyHearts* website is guaranteed by adhering to these procedures, which encompass all critical components to ensure its security, functionality, and performance.

## 2.5 Maintenance

The maintenance phase is the final phase in Waterfall methodology. The programme is immediately accessible for productive purposes upon effective completion of the testing process. It is the process of modifying the functionality of a programme after it has been delivered and used to enhance output, correct errors, and enhance performance and quality. Additional maintenance behaviours, including the adaptation of the system to its environment, the integration of new user requirements, and the enhancement of software stability, may be implemented during this phase. Upon the detection of defects and the receipt of user requests for modifications following a successful system launch, *TinyHearts* system will be subjected to the update and release of new versions of this system.

## 3. Results and Discussion

There are 25 respondents who have tested this system, as indicated in **Table 1**. Information regarding the system's context has been provided to users before to the testing session. The system is subsequently evaluated by respondents, who provide feedback and opinions via the Google Form that has been set up following an explanation.

**Table 1** Quantity of Users Based on category

Category	Quantity
Parents	16 respondents
Teachers	9 respondents
<b>Total</b>	<b>25 respondents</b>

**Table 2** provides a comprehensive summary of all respondent feedback. The majority of respondents are exceedingly pleased with the *TinyHearts* system. This demonstrates that our system is user-friendly and straightforward to operate. Subsequently, the majority of respondents declared that our user interface is user-friendly. The interface we develop is designed to appeal to children through the use of vibrant colors and cheerful imagery. This demonstrates that our user interface is appealing and captured the interest of users. Furthermore, the majority of respondents are content with the anticipated function and features of this system. All data gather from the internet and assess current applications to incorporate critical capabilities into the system. The majority of respondents did not experience any problems or defects while utilizing our system. Each page and icon in our system are both well-designed and interconnected. This results in a significant number of infants who will develop into morally upright individuals in the future.

**Table 2** Summary of the feedback on the system

Questions	Result
1) How would you rate the interface of this system in terms of user-friendliness?	Very good – 22 Good - 3 Neutral - 0 Not so good - 0 Very poor - 0
2) Are you facing any difficulties while using this system?	Yes - 22 No - 3
3) To what extent do you agree that this system is attractive to students/your child?	Strongly Agree - 20 Agree - 5 Neutral - 0 Disagree - 0 Totally disagree - 0
4) To what extent does this system help students/your child understand moral values towards parents, teachers, and peers?	Very Helpful - 15 Helpful – 10 Unhelpful - 0 Very unhelpful - 0
5) Have you seen a positive change in student/your child behavior after using this system?	Yes, a lot of changes - 11 Yes, a little changes - 14 No change - 0 Not sure - 0
6) How do you rate the effectiveness of interactive quizzes in this system to strengthen moral learning?	Very Effective - 14 Effective - 10 Neutral - 1 Ineffective – 0 Very Ineffective - 0

#### 4. Conclusion

In conclusion, the situation of the modern age, engrossed in technology to the point where it has partially paralyzed their moral values, is particularly concerning for young children who aspire to grow up. So, the development of a system like this would increase the interest of the present generation in learning-based systems, as they feature engaging learning content and an eye-catching user interface display. Today, moral education is vital because it will foster positive environments at home, at school, and everywhere else. Loss of moral principles will harm the nation as well as the individual.

#### Acknowledgement

The authors would like to thank the Centre for Diploma Studies, Universiti Tun Hussein Onn Malaysia for its support.

#### Conflict of Interest

Authors declare that there is no conflict of interests regarding the publication of the paper.

#### Author Contribution

*The authors confirm contribution to the paper as follows: study conception and design: Mohd Suhaimi Bin Md Yasin, Muhammad Aiman Hakimi bin Mahdom, Muhammad Luqman Haikal bin Hazni, Syarifah Haziqah Alhady binti Syed Mohd Sadik; data collection: Nur Fiqrah Syawanie binti Mohamad; analysis and interpretation of results: Nur Fiqrah*

Syawanie binti Mohamad, Syarifah Haziqah Alhady binti Syed Mohd Sadik; draft manuscript preparation: Muhammad Aiman Hakimi bin Mahdom, Muhammad Luqman Haikal bin Hazni. All authors reviewed the results and approved the final version of the manuscript.

## References

- [1] S. Kaur, "Moral values in education," IOSR Journal of Humanities and Social Science, vol. 20, no. 3, pp. 21-26, 2015.
- [2] W. V. Quine, "On the nature of moral values," Critical Inquiry, vol. 5, no. 3, pp. 471-480, 1979.
- [3] J. Danil and S. Mohamed, "Perubahan Tingkah Laku Kanak-kanak Disebabkan Penggunaan Gajet," Jurnal Dunia Pendidikan, vol. 3, no. 2, pp. 200-209, 2021.
- [4] M. Sarwar, T. R. Soomro, "Impact of smartphone's on society," European journal of scientific research, vol. 98, no. 2, pp. 216-226, 2013.
- [5] R. Sinaga, "The influence of gadgets on social development of pre-school children in village iv jalan rejo, paya lombang sub-district, tebing high district, serdang bedagai district year 2022," Science Midwifery, vol. 10, no. 5, pp. 3953-3957, 2022.
- [6] Z. Shafie, R. Othman, A. Abu Hassan, "JERI-kanak-kanak dahulu dan sekarang," Buletin APB Edisi 10, 2023.
- [7] C. Alvarez, "Rethinking social sciences and humanities in the contemporary world," Economic & Political Weekly, vol. 46, no. 31, pp. 91, 2011.
- [8] Z. M. Zain, F. N. N. Jasmani, N. H. Haris, and S. M. Nurudin, "Gadgets and Their Impact on Child Development," Proceedings, vol. 82, pp. 6, 2022.
- [9] A. Deshpande, S. Ahmed, & R. Bahreini, "Prevalence of Disrespectful Behaviors in Classrooms and Effective Management Strategies for Teachers: A Review," Medical Education Bulletin, vol. 6, no. 1, pp. 1041-1049, 2025.
- [10] H. A. M. Khalifa, "Where there is disrespect, you will find violence: The Demography of Child-on-Child Disrespect in Egyptian," The International Journal of Social Sciences and Humanities Invention, vol. 5, no. 3, pp. 4526-4535, March 2018.
- [11] M. D. H. Rahiem, N. S. M. Abdullah, S. E. Krauss, and H. Rahim, "Moral Education through Dramatized Storytelling: Insights and Observations from Indonesia Kindergarten Teachers," International Journal of Learning, Teaching and Educational Research, vol. 19, no. 3, pp. 475-490, March 2020
- [12] M. Ngafifi, "Kemajuan teknologi dan pola hidup manusia dalam perspektif sosial budaya," Jurnal Pembangunan Pendidikan: Fondasi dan Aplikasi, vol. 2, no. 1, pp. 33-47, 2014.
- [13] J. G. Perle, & R. E. Loren, "The conceptualization and treatment plan of a child diagnosed with disruptive mood dysregulation disorder: A Case Report," Evidence-Based Practice in Child and Adolescent Mental Health, vol. 1, no. 4, pp. 176-195, 2016.
- [14] D. J. A., Tar, M. I. Mahmud, "Minat, tingkah laku distrustif dan gaya pembelajaran murid bermasalah pembelajaran di sekolah rendah," Jurnal Dunia Pendidikan, vol. 3, no. 4, pp. 49-64, 2021.