

Literatura PH: An Adapted System Analysis and Design-Based Mobile Application for Improving Reading and Comprehension using Philippine Folk Literature among Primary Education Students

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Abstract

The global emergence of the COVID-19 pandemic forced the education system to adjust to the presumed new normal. Primary education students were substantially affected upon returning to the traditional set-up of the school; most notably, they showed signs of inadequate skills in reading and comprehending simple sentences. Moreover, the attractiveness of technology to children nowadays has become predominant, in opposition to the popularity of Philippine folk literature, which is given little importance and needs an introduction to Filipino youth today. Furthermore, with children immersed in technology, this study incorporated Philippine folk literature to be adapted into a system-based mobile application, which will further improve the reading and comprehension of primary students in urban areas as they utilize this new educational material. This mobile application exhibits an innovative approach to the sustainability of the writings of the local authors, which are enriched by utilizing modern technology to be enjoyed while learning. The researchers developed primary data using a mixed methodology technique to serve as a source for creating a design-based mobile application. The result of the study presented the effectiveness of technology in improving reading and comprehension with an added element of student engagement by utilizing local Filipino folk literature.

Keywords

Sustainability, Education, Philippine Folk Literature, Reading -Comprehension, Mobile Application

1. Introduction

During the pandemic, children developed a dependency on various forms of technology, and reports indicate that this trend persisted after the global pandemic. According to Qizi (2021), as cited in Hashim, Z. B., & Aziz, A. A. (2021), the scholar explained how technology is used to review past studies on using technology to improve language learning skills, and made some suggestions for bettering the integration of these technologies to help students improve their learning. Furthermore, gamification is introduced in education today with the objectives of enhancing the level of engagement of the students for learning and optimization, as well as support for behavioral changes and socialization with fellow students (Knutas et al. 2014; Krause et al. 2015; Dichev and Dicheva 2017; Borges et al. 2013, as cited in Smiderle et al. 2020). It generates involvement with the educational environment as a strategy for further enhancement and the transfer of knowledge to students (Dichev and Dicheva 2017, as cited in Smiderle et al. 2020).

For more than a year, the Philippines has closed its face-to-face learning modalities, which causes learning loss, mental distress, a heightened risk of drop-outs, etc. The youngest learner in the country is in a critical developmental stage because of this, according to UNICEF Philippines Representative Oyunsakhan Dendevnorov stated in 2021. Specifically, the reading and comprehension skills of the students deteriorated during the pandemic. The United Nations Children's Fund (UNICEF) (2022) stated in their report that 3 out of 20 students can read simple texts, in large part because of the longer closure of schools in the country. UNICEF's latest assessment of learning poverty states that 10-year-olds cannot read or understand simple stories—a percentage of more than 80% compared to the

World Bank's estimated percentage of 90% in November 2021, as cited in Academia Sersoft. (2022) and Gita-Carlos, R (2021).

Moreover, the reader gains the insight to interpret events from a variety of perspectives through the study of folklore. It demonstrates that all of the aforementioned issues and triumphs occur in every culture and all across the various time periods in history. Folk literature is a significant component of Philippine culture. It often discusses the Philippines' customs, values, and beliefs prior to the effect of colonialism on the nation. People get perspective and nature that allows them to realize "why we do what we do today" by reflecting on positive, loving experiences or negative, painful recollections of life, both of which have various advantages when they look back in the past. Every single remembrance of the past entails remembering experiences that might serve as a lesson to prevent one from making the same mistakes again.

In addition, an adapted system analysis and design-based method for creating a mobile application will be used for the improvement of reading and comprehension using Philippine folk literature for the primary education students to use with their education and/or leisure time. This cycle often involves the development of application software, as well as its adoption and the preparation of users for its usage. It describes the scope definition, problem analysis, requirements analysis, logical design, and decision analysis stages of the project in terms of the information system building blocks that will be appropriate in order to carry out the purpose of this study.

1.1 Objectives

The Filipino youth of today's culture in the Philippines have swiftly acclimated to new technologies and spend a significant amount of time utilizing various electronic devices as a form of entertainment. This presented an opportunity to make use of this platform to educate the youth of today's generation that education can be just as much fun as playing on their digital devices. The following is a list of the objectives that this research aims to achieve:

- To enhance the knowledge of primary education students for Philippines Folk Literatures with the use of LiteraturaPH App.
- To further assist in improving both English and Filipino language and comprehension of the primary education students applying LiteraturaPH App.
- To provide entertaining ambiance for children while learning (having fun while learning) utilizing the LiteraturaPH App.
- To assist the educational system for Primary level education in the Philippines through LiteraturaPH App.
- To use a system analysis and design method to create a mobile application for improving reading and comprehension using Philippine folk literature.

2. Literature Review

2.1 The Importance of Using Mother Tongue to Teach Folktales to Learners

It is not uncommon to see in mother tongue or first language classes the use of folktales written or told in the mother tongue or first language as teaching resources to instill the desirable moral and cultural values that are inherent and preserved through language in the society. Therefore, by listening to and reading these tales, as well as speaking and writing about them in the mother tongue or first language, learners not only develop language skills but also get socialized into the culture. Looking beyond folktales of one specific culture which are written or told in the native language of the people in that culture, one can find publications of collections of folktales from different cultures written in English. Especially in the Asian context, where societies have a rich oral history, folktales have been preserved for generations not only as a reflection of a particular culture but also as a means of instilling certain concepts in the society. Efforts are also made to disseminate the rich folk literature from different countries in Asia by collecting and publishing collections of Asian folktales in English. Lwin (2010), as cited in Kuala, U, S. & Aceh, B. (2019) has pointed out the prominent patterns of folk talks from different cultures to their structural similarities. It includes some of these patterns:

Protagonist A: Task → Success → Reward

Protagonist B: Task → Failure → Punishment

The existence of folktales from different cultures written in English has made it possible to do a comparison or contrastive analysis of folktales.

2.2 Skills Development from Learning Folktales

In addition to focusing on micro skills like lexico-grammatical features, (Lwinm 2015, 2017, as cited in Kuala, U, S., & Aceh, B. (2019)) have shown how ESL/EFL educators can build on learners' familiarity with folktale narrative structures to help them develop macro skills like discourse organization or an understanding of generic text structure/organization. Similarly, learners might be attracted to the discussion of cultural components (e.g. family structure and kinship terminology) reflected through linguistic form in folktales of a specific country. Folktales may help more advanced English learners develop task-based conversation and/or writing. Using folktales, instructors may design assignments for students to analyze, evaluate, and defend their answers to cleverness, competition, fairness, deceit, reward, punishment, etc. Understanding and mastering academic discourse in language acquisition requires skills in analyzing, evaluating, and justifying one's viewpoints.

2.3 Mobile Application as Educational Tool

The reviewing of many studies from different worldwide research groups on the state-of-the-art of Mobile-Assisted Language Acquisition in formal and non-formal education to highlight the recent and on-going advancement of practices in the learning of second languages. Despite a generally favorable attitude toward the innovations being implemented in the classroom, there are still a number of obstacles to overcome in order to successfully incorporate mobile learning technologies into language instruction. The community does not consider the apps as educational tools but rather as simple sources of pleasure, which is one of the problems that exist. Some schools do not have a culture, which is one of the challenges that exist. The concept that education may really be enjoyable may really be true, however many people are still unfamiliar with it, Barcena (2015) as cited in Jerome C. Jaime, Nico M. Fos, F. J. B. T. (2018).

2.4 The Advantages of Learning Apps for Students Nowadays

In the wake of the global pandemic, the education sector has experienced an explosion of technological advancements. Using technology to its advantage, the entire industry is exploring new methods of operation. It's not that technology has never been employed in education; its that educational applications have been underutilized. Utilizing technology was once an option, but is now a must. This has led to the acceptance of educational software development via mobile applications, allowing firms, especially in the education industry, to achieve new heights. During mandatory distance learning, there was a significant demand for technical tools and systems that enabled professors to engage with their students, track their learning progress, and deliver courses.

Furthermore, the report concludes that numerous educational organizations offer school administration apps and other mobile applications for a range of purposes, making it simple for an organization to keep students informed about school activities. Through the use of mobile applications, students have adopted novel instructional methods. These

mobile applications aid students in overcoming obstacles and studying more efficiently. Mobile applications are the future of education and are paving the way for its growth.

2.5 The Effectiveness of Reading Folk Literature in Improving English Language Learners' Reading Proficiency in Elementary Grades

As stated on the study the effectiveness of reading folk literature in improving English language Learner; Reading proficiency in Elementary grades (Lect, A., & Hwayyiz, M. 2022), numerous researchers looked at the relationship between great readers and great writers, and between weak readers and weak essayists, and discovered an amazing correlation (Moore, (1995), as cited in Lect, A., & Hwayyiz, M. (2022)). Others have elaborated on the relationship and agreed that "reading like an essayist enables one to become an author" (Langer and Flihan, 2000, p.126, as cited in Lect, A., & Hwayyiz, M. (2022)). This change has advanced current speculation beyond the correlation or connection between proficiency and education. Education is described as "a social practice that takes several formats, each with stated aims and situations" by Cairney (1992). (p.76), as cited in Lect, A., & Hwayyiz, M. (2022). One of the languages that many students struggle to learn is English. The majority of students to focus on are those in elementary school because they are at the beginning of their educational journey and do not yet have the world's knowledge stored in their minds. However, weak English schooling skills can be a hindrance, as seen by the 75% of school dropouts who report having comprehension difficulty and the 50% of adults with criminal records who are identified as having such difficulties. The benefits of using reading folk literature as a way to help primary school students improve their reading skills in English language were later discussed by the researcher. The researcher first dealt with an explanation of this effectiveness to enhance the skill of reading, then dealt with a group of prior studies that were examined. The researcher offers some suggestions as a way to enhance both the skill of reading in general and the efficacy of reading popular literature.

2.6 The Advantages of the Use of System Analysis and Design Methodology

Systems analysis and design is an interesting methodology as well as a dynamic area to be explored and used in the development of information systems with an understanding and the identification of critical system components that are compatible. Analysts in the field are always learning new methods and strategies to construct systems that are more effective and efficient (Cosmas, N. I., Christiana, A. F., & Jeremiah, O. O. (2022)). If a company wants to have an effect on its target market that will continue for an extended period of time, it must be willing to spend its resources on research and planning in order to determine if a new project is feasible, partly viable, or not practical at all. This will either indicate the organization's survival inclinations in relation to the project, or it will highlight the organization's deficiencies in its ability to handle the project.

2.7 Category of Philippine Folk Literature

According to the research Eslit, E. R. (2017) titled Filipino Folklore, Damiana Eugenio, master compiler of Philippine folkloric myths, legends, riddles, and proverbs, Damiana Eugenio, who is also known as the mother of Philippines literature, stated that Philippine folk literature may be categorized into three primary categories: folk narratives, folk speech, and folk song. Folk narratives, such as the alamat (folklore or legend), Pabula (fables) stories that teach lessons, and the kuwentong bayan (folktale), may be written in prose or in poetry; the folk narrative, on the other hand, is written in verse. Among the components of folk speech are the bugtong (riddle) and the salawikain (proverbs). Folk songs may be broken down into two categories: those that tell a tale (known as folk ballads), which are uncommon in Philippine folk literature, and those that do not tell a story; the former category makes up the majority of the Philippines' rich tradition of folk songs.

3. Methods

This study evaluates the advantages and disadvantages of improving reading and comprehension using Philippine folk literature using the T- test and Cumulative Frequency Table. To achieve the objective of this study, the researchers used mixed-method design in this study to allow qualitative and quantitative data to be collected from interviews, and survey questionnaires. This could enable researchers to obtain an accurate result in a rating system that assigns a value between a dichotomous scale to categorize the significance of children's exposure to folk literature in terms of its impact on education, reading and comprehension of language skills development, and understanding, specifically in agreement and importance. The information gathered will be subjected to statistical analysis and software.

4. Data Collection

The researchers invested significant time, effort, and initiative in order for their questionnaire to serve its target respondents. Individual questions generated by researchers were used to compile the survey. The survey consisted of three main parts, each of which was subdivided into several subparts relevant to the respondents' perspectives on the improving of reading and comprehension using Philippine Folk Literature. The questionnaire applied the Likert Scale to evaluate the level of importance with a given statement. After the professor validated the questionnaire, 453 parents/guardians of 6 to 12-year-old children in the National Capital Region (NCR) were given a copy. Participants were given time to respond, and the survey questionnaires were collected. Also, prototype testing was conducted to the beneficiaries of this system-application. There were invited Principal and Filipino Teachers to test it, as well as students to use and play the activities prepared for them. This allows it to further improve and polish related bugs and dysfunctionality before its final release.

5. Results and Discussion

The results derived from the acquired data, together with an interpretation of those findings and a statistical analysis, are presented. To analyze the result, the researchers used Minitab and Microsoft Excel to present the data, reliability test, correlation, and descriptive analysis. This chapter also shows the frequency and percentage distribution of the survey result. This also contains the results from the interviews that were performed with a variety of experts in the field relevant to the study in order to further bolster and support the research goal.

Table 1. Reliability Test

| Cronbach's Alpha | Number of Respondents |
|------------------|-----------------------|
| 0.852 | 453 |

The table 1 shows a reliability test using the Cronbach's Alpha Coefficient to determine that the 9-item concur and disagree scale was reliable and the instrument was free of measurement errors. Cronbach's Alpha values equal to or greater than 0.7 are acceptable for a reliable instrument (Hair, 2019). The figure indicates that Cronbach's alpha coefficient for this study is 0.8519, which is greater than 0.7. It is possible to conclude that the instrument's dependability is acceptable.

5.1 Numerical Results

Table 2. Average Grades in Reading Skills

| Indicators | Average (Pre-Test) | Average (Post-Test) |
|----------------|--------------------|---------------------|
| Alamat | 78.18 | 98.18 |
| Pabula | 80.00 | 94.00 |
| Parabula | 80.00 | 90.00 |
| Kwentong Bayan | 71.11 | 95.56 |

As shown in table 2 above, the average grade of the students in reading by using the jumbled letters in the easy mode of Alamat, Pabula, Parabula and Kwentong Bayan. The category increased, the alamat increased with 20%, pabula with 14%, parabula with 10% and kwentong bayan increased with 24.45%. The average increasing rate in reading skills are 17.11%. These results were acquired during the UAT of the students.

Table 3. Average Grades in Comprehension Skills

| Indicators | Average (Pre-Test) | Average (Post-Test) |
|------------|--------------------|---------------------|
| Salawikain | 86.67 | 92.00 |
| Bugtong | 88.89 | 100.00 |

Table 3 shows the average grade of the students who take pre-test and post-test after answering the salawikain and bugtong activity in Literatura mobile application during the UAT. As you can see, the salawikain increased with 5.33%

and the bugtong increased with 8%. Overall, the comprehension level increased by 5.11%.

Table 4. Average Grades in using Filipino Language

| Indicators | Average (Pre-Test) | Average (Post-Test) |
|-------------------|---------------------------|----------------------------|
| Alamat | 78.18 | 98.18 |
| Pabula | 80.00 | 94.00 |
| Parabula | 80.00 | 90.00 |
| Kwentong Bayan | 71.11 | 95.56 |
| Tula | 92.00 | 100.00 |
| Salawikain | 86.67 | 88.89 |
| Bugtong | 92.00 | 100.00 |
| Folk Song | 80.00 | 95.00 |

The average score for the 8 modes activity in the LiteraturaPH application during UAT is shown in Table 4. This method is used to assess the student's proficiency in the Filipino language. As you can see, every mode has improved since the pre-test grade. With the help of the pre- and post-tests, the usage of this language increased by 12.71% after using the application.

Table 5. Rating Questions Based on their Importance

| Statement | Important | Unimportant | Important % | Unimportant % |
|---|------------------|--------------------|--------------------|----------------------|
| Is it important to get your kids interested in reading stories about Philippine folk literature? | 440 | 13 | 97% | 3% |
| Is it important that Philippine folk literature be a part of the school's curriculum for your child or children? | 442 | 21 | 95% | 5% |
| Is language important for the comprehension of your children about Philippine folk literature? | 440 | 13 | 97% | 3% |
| Is it important to teach your children Philippine folk literature at home? | 406 | 47 | 90% | 10% |
| Is it important for parents or guardians to be responsible to teach their child(ren) about Philippine folk literature? | 420 | 33 | 93% | 7% |
| Is it important to use technology to be used as a medium to create an application to improve child(ren)'s comprehension and reading skills? | 437 | 16 | 96% | 4% |
| Is it important for your child(ren) to be entertained while learning using technology? | 430 | 23 | 95% | 5% |
| Is it important for schools to allow students to use technology to | 432 | 24 | 95% | 5% |
| Is it important for schools to embrace technology in order to teach their students about Philippine folk literature? | 441 | 12 | 97% | 3% |

Table 5 shows a variety of statistics that indicate the significance of using Philippine folk literature as a medium for enhancing students' reading comprehension. These data are presented in tabular format. It also includes the importance

of incorporating Philippine folk literature into the curriculum of the students, why education regarding Philippine folk literature should take place both at home and at school, the results of an experiment that used technology to incorporate Philippine folk literature in order to improve students' reading comprehension, and why it is essential to make use of technology when teaching young students. The results shown above indicate that not less than 90% of all respondents believe that Philippine folk literature is important. On the other hand, the degree of significance of utilizing technology as a medium to educate children only received 77%, which indicates that out of 453 respondents, there are 102 individuals who disagree, which is a rate of 33%.

Table 6. Current challenges in teaching Philippine folk literature

| Statement | Frequency | Percentage |
|--|-----------|------------|
| Endless paperwork & extended working hours | 329 | 34% |
| Home environment due to family problems | 142 | 15% |
| Lack of funding and resources | 123 | 13% |
| Lack of effective communication | 84 | 9% |
| Lack of encouragement and motivation under challenging times | 137 | 14% |
| Children's lack of discipline and attention when teaching | 167 | 17% |

Table 6 shows the current challenges in teaching Philippine folk literature. There are 34% of the respondents encountered endless paperwork & extended working hours, followed by children's lack of discipline and attention when teaching with 17%, home environment due to family problems with 15%, 14% of lack of encouragement and motivation under challenging times, 13% of lack of funding and resources, and last is lack of effective communication with 9%. As you can see, there are numerous obstacles preventing primary school pupils from studying Philippine folk literature today. The majority of parents and guardians responded with endless paperwork and extended working hours, which stopped the parents and guardians of the students from teaching or assisting their child with schoolwork or activities.

Table 7. Response to a game-type educational application

| Statement | Frequency | Percentage |
|--------------|-----------|------------|
| Engaged | 283 | 34% |
| Entertained | 350 | 42% |
| Informed | 186 | 23% |
| Uninterested | 7 | 1% |

Table 7 shows the developmental effect of a system analysis and design-based methodology. 350 respondents out of 453 opted for the application type involving an entertaining game. The highest response that was gathered from the respondents about what they think the response of their children is to game-type educational applications for Philippine folk literature is being entertained, with 42, engaged with 34%, being informed with 23%, and the least is their children being uninterested at all. Adapting to technology would be an efficient method for broadening students' understanding of Philippine folk literature and enhancing its attractiveness. Consequently, using a system analysis and design-based method to construct a mobile application for improving reading and comprehension using Philippine Folk Literature has a significant impact.

5.2 Test of Significance Result

Table 8. Test of Significance in Reading Skills

| Indicators | Pre-Test (P values) | Post-Test (P values) |
|------------|---------------------|----------------------|
| IQ_1A | 0.427 | 0.011 |
| IQ_1B | 0.798 | 0.111 |
| IQ_1C | 0.099 | 0.495 |
| IQ_1D | 0.012 | 0.031 |

As shown in table 8 above, by using the 4 modes in LiteraturaPH—Alamat, Pabula, Parabula, and Kwentong Bayan—it demonstrates the significance test of the impact of Filipino folk literature on students' reading abilities. It is transparent that none of the P-values in T are equal to or higher than 7.09. When the results of the pre and post-Tests are averaged, there is a noticeable difference; on the post-Test, the students' scores increased as a result of utilizing the application, indicating that it had a positive effect on their reading ability in using the LiteraturaPH Application.

Table 9. Test of Significance in Comprehension Skills

| Indicators | Pre-Test (P values) | Post-Test (P values) |
|-------------------|----------------------------|-----------------------------|
| IQ_2A | 0.013 | 0.000 |
| IQ_2B | 0.003 | 0.000 |

Table 9 shows data that demonstrates the pupils' understanding abilities with the use of the Literatura PH Application. There is a mode in this app that measures their degree of comprehension as students. The significance level of comprehension is measured by the researchers using a Pre-Test and Post Test. As you can see, the majority of the P Values are regarded as 0. In terms of their differences after taking these tests, the majority of students improve their scores, and some even acquire the perfect score, indicating that there is an improvement in education while utilizing this type of educational entertaining application.

Table 10. Test of Significance in using Filipino Language

| Indicators | Pre-Test (P values) | Post-Test (P values) |
|-------------------|----------------------------|-----------------------------|
| IQ_3A | 0.263 | 0.000 |
| IQ_3B | 0.296 | 0.007 |
| IQ_3C | 0.224 | 0.092 |
| IQ_3D | 0.441 | 0.324 |
| IQ_3E | 0.859 | 0.000 |
| IQ_3F | 0.308 | 0.000 |
| IQ_3G | 0.859 | 0.000 |
| IQ_3H | 0.443 | 0.241 |

Table 10 illustrates the significance test in utilizing Filipino language in LiteraturaPH. It displays the P-Values in the table, which are not equal to the mean. As you can see from the difference between the pre and post-tests, there is an improvement in using this type of mobile application to support your child's education.

Table 11. Test of Significance for SOP 2

| Statement | P Values |
|---|-----------------|
| Is it important to get your kids interested in reading stories about Philippine folk literature? | 0.000 |
| Is it important that Philippine folk literature be a part of the school's curriculum for your child or children? | 0.000 |
| Is language important for the comprehension of your children about Philippine folk literature? | 0.000 |
| Is it important to teach your children Philippine folk literature at home? | 0.000 |
| Is it important for parents or guardians to be responsible to teach their child(ren) about Philippine folk literature? | 0.000 |
| Is it important to use technology to be used as a medium to create an application to improve child(ren)'s comprehension and reading skills? | 0.000 |
| Is it important for your child(ren) to be entertained while learning using technology? | 0.000 |
| Is it important for schools to allow students to use technology to | 0.000 |
| Is it important for schools to embrace technology in order to teach their students about Philippine folk literature? | 0.000 |

In the table 11 that can be found above, the T-statistics and P values that are used to measure the significance of adopting new technology are presented. As can be seen, each of the P values is more than 1.50; hence, there is a considerable influence in modifying existing practices to accommodate emerging technology in the interest of involving the young generation in contemporary pedagogy.

6. Conclusion

According to the evidence and data that were acquired after carrying out a number of different approaches that address the following statement of the problem. The following findings and results are relevant not just with the primary objectives of addressing and improving the reading and comprehension of Filipino folk literature. But also, to promote

sustainability using the writings of local authors through the utilization of technology by making an application with the intention of providing the younger generation with educational and entertaining alternatives. These findings and results can be found below.

1. What is the impact of Philippines Folk Literature on the education of the younger generation?

a. Reading

According to the respondents, reading Philippine folk literature has an effect on the next generation's education. The student's scores have increased in result of the pre-test and post-test (see the table 8) which measured its impact on their reading skill. By using applications, all of the respondents improved their learning. According to Playful Life with Kids (2019), reading Filipino literature is beneficial for kids because it fosters the nation's culture and the community's, strengthens Filipino identity and citizenship, teaches Filipinos to deeply value their own language, and demonstrates the nation's values and current state. On the other hand, according to the findings of the interview with the professionals, the present state of reading and comprehension in the country is poor. Using Philippine folk literature and technology, the students can feel interested and encouraged to read more and learn to avoid struggling with low self-esteem and a feeling of inadequacy.

b. Comprehension

According to the User Acceptance Testing, the ability of the children to comprehend is affected. Every respondent received an excellent score, indicating that the students' comprehension has improved or been positively impacted (see the table 9). Poor reading and comprehension are linked to problems with low self-esteem, language barriers and adjustments, and grammar, and they will make it more difficult to understand what was read and stated, according to the students' interview. Again, the pupils will suffer as a result of the school's widespread spread. It significantly affects the pupils' capacity to grow as artists. According to the Children's Reading Foundation (2023), if the students struggle to read, it also has an effect on how they can interpret the words they are reading. Exam failure is a common occurrence for children because of their inadequate reading and comprehension abilities.

c. Filipino Language

Based on the results, there is an impact of Philippines Folk Literature on the education of the younger generation in using Filipino Language. According to Filipino teachers, the state of reading and comprehension of the students is very poor. Many children are good readers, but not all good readers are also good comprehenders because most of the youth today prefer reading westernized books, which affects their comprehension abilities due to the language barrier. According to the Children's Reading Foundation (2023), children who have trouble reading are more likely to struggle academically, emotionally, and socially. According to Playful Life with Kids (2019), one of the reasons why reading Filipino literature is good for children is that it promotes learning to deeply appreciate their own language, which is Filipino. However, not all children who use the Filipino language have a complete understanding of its meaning, as the majority of students today prefer to read westernized books over indigenous ones, according to the guidance counselor that was interviewed. Furthermore, with the result of pre-test and post-test to accumulate the measurement of the impact of reading, comprehension and Filipino language based on students' scores which resulted significantly, support that Philippine Folk literature indeed has an impact on Filipino language (see the table 10).

2. What is the significance of adapting to new technologies in order to engage the younger generation in modern learning?

Among the 453 respondents, 403 selected watch features or 39% rate, followed by play features with 28% rate, read with 17% rate, and hearing/listening with 16% rate as a means of adopting new technologies to engage the younger generation in modern learning about Philippine folk literature. Students who utilized digital resources learned more quickly and performed better than those who did not. Observing is a wonderful resource for visual learners because it allows them to comprehend concepts without impediments to learning. According to Kinderfield High Field, (2023), watching helps children develop cognitive skills such as forming long-term memories, sustaining focus, and developing logic, reasoning, and visual and auditory processes. According to research on the effects of gamification on students (Smiderle et al., 2020), gamification of education may enhance student engagement comparable to what games can do to improve their specific abilities and maximize learning, which is also agreed upon by the interviewees.

3. What are the barriers that prevent primary education students from learning about Philippine folk literature in the present day?

According to the interview, it was stated that the lack of materials in Philippine literature, their inaccessibility, or the difficulty of obtaining such materials are some of the major reasons why the majority of respondents who are parents or guardians encountered difficulties in teaching their children about Philippine folk literature. Also based on the results of the survey, 248 or 55% rate of the respondent disagree that it is easy to find Philippine folk literature books and materials for their children, and 311 or 69% rate disagrees that their children can easily find materials about Philippine folk literature on their own. 357 or 45% rate of the respondents experienced an endless amount of paperwork and scheduled work hours, followed by children's lack of discipline and attention when teaching (17% rate), and lack of encouragement and motivation under challenging times for the students (16% rate of respondents). The researchers found that this resulted in their finding that the majority of respondents who are parents or guardians encountered these difficulties. Also, the result of the interview with the professionals, the lack of promotion, and the preference of Filipinos for westernized work over local ones are considered barriers.

4. What developmental effect does using a system analysis and design-based method to help create a mobile application for improving reading and comprehension using Philippine Folk Literature have?

According to the survey respondents, 350 out of 453 respondents choose entertaining features that they believe have a developmental effect when using a system analysis and design-based approach to create a mobile application for improving reading and comprehension using Philippine Folk Literature. Visual aids provide students with realistic images and increase their ability to observe with 92% and 72%, students concurring that they eliminate learning monotony. This is supported by the study titled Impact of Visual Aids in Enhancing the Learning Process Case Research by District Dera Ghazi Khan (2015), as cited in Anas, F. and Zakaria, N. (2019), which can motivate students to increase their learning motivation. In addition, based on the interview that the researchers conducted, adapting to technology would be a useful instrument for broadening students' understanding in general and enhancing the recognition of Philippine folk literature. Adapting to technology would be an effective tool for broadening students' comprehension of Philippine folk literature and increasing its appeal. Furthermore, the respondents identified to be entertained with an educational game-type application using Philippine folk literature to be the response of their children. This will help to develop the interest of the children for a game-type education tool to engage them from using it, to further improve their basic skills such as reading and comprehension.

Furthermore, the result of the user acceptable test among the four professionals such as, Filipino teachers (2), Literature teacher (1) and a basic education principal (1), as well as the five students are all invited to participate with the actual prototype testing of LiteraturaPH to experience it on hand and find out the acceptability of this mobile-application. According to a survey conducted prior to the application's development, the top 3 features for a system's usability, responsiveness, and usefulness, and for a design's quality are comprehension, adaptability, and creativity. Age-appropriateness, content, and accuracy of the information quality. The qualities of enjoyable, responsive, and collaborative interaction. System quality rated 4.92% on the UAT, design quality 4.87%, and information quality and interaction both got 4.90%. As a result, the application has met the preferences of the students who would use it and benefit from it for academic purposes.

The majority of students who participated in user acceptance testing on the LiteraturaPH application said they greatly enjoy using and exploring it. The respondents also unanimously agreed that they find the application to be user-friendly, comfortable, and satisfying. They also agreed that they think the LiteraturaPH application will help to raise students' interest in and knowledge of Philippine folk literature, making it appropriate for them to use it in class. The respondents want to promote and recommend this application to their fellow students who are studying Philippine folk literature as part of their educational programs, especially those pupils in grades 1-6, as it will undoubtedly benefit and boost their interest in this topic.

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Biography

Mia Coleen C. Geca, an Industrial Engineer graduated from Adamson University Manila, Philippines, batch of 2023. She acquired certification of Lean Six Sigma Yellow Belt, which she obtained twice in February 2022 and 2023. Also, she is a Safety Officer 1, for which she obtained certification in July 2021, accredited by DOLE. She had been an active student leader during her 3rd year of college in different organizations simultaneously, such as the Philippine Institute of Industrial Engineering – Operations Research Society of the Philippines, Adamson University Chapter, and Adamson University Engineering Student Council, as ESC Representative and Public Relations Officer for External Affiliation in 2022-2023. One of the highlights of her career as a student is her on-the-job training journey. She became part of Coca-Cola Beverages Philippines – Sta. Rosa Incorporation, and was assigned as an Environmental Occupation Safety and Health Intern. Her task involved monitoring the safety of the facilities and equipment, inspecting tags, assisting the EOSH team with the programs that will be implemented, checking the current processes, and discussing potential process improvements within the (RGB) Returnable Glass Bottle Plant.

Hiezal C. Lasat, an Industrial Engineer graduated from Adamson University in the year of 2023, Manila, Philippines. She acquired her certification as a DOLE accredited Safety Officer 1 in July 2021. She is also a certified Lean Six Sigma Yellow Belt, which she obtained in February 2022. She became a student leader during her 3rd year in college. She became part of the Philippines Institute of Industrial Engineering – Operation Research Society of the Philippines Adamson University Chapter from 2022-2023 with a position of Logistics Director. One of her educational highlights was working as a Kaizen Improvement intern under the largest automotive company in the country named Toyota Motors Philippines Corporation – Lipa City, Batangas. Her job entailed aiding the department in its goal of maximizing value-added activities within processes by doing responsibilities such as data production and analysis, continuous improvement approaches, and collaborating closely with various team members around the organization. Her responsibilities also include conducting time and motion studies and assisting with internal audits and data collection.

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Elaine Rodriguez, PIE, Engr. is an excellent and skilled industrial engineering management specialist who specializes in improving industrial processes and increasing operational efficiency. She has made important contributions to the area as a result of her creative problem-solving abilities and commitment to ongoing growth. Her scholastic experience began at the MAPUA Institute of Technology, where she studied Industrial Engineering as her bachelor's degree. During her time there, she developed a strong interest in engineering and industrial processes. It fueled her ambition to learn more and improve her talents in the industry. She acquired her Master's degree in Industrial Engineering Management at the prestigious Polytechnic University of the Philippines in order to broaden her horizons and obtain a more thorough grasp of industrial engineering.