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# **JAWI GAMES: INTERACTIVE LEARNING FOR KIDS 10-12 YEARS OLD BY APPLYING GAME-BASED LEARNING PRINCIPLES**

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## **ABSTRACT**

Jawi has enormous significance in the history of the nation. Jawi is also one of Malay scripts that has very close relationship with Islam, Malay race and Malay heritage. Jawi is also important such the beginning to learn and read Al-Quran. But nowadays Jawi is no longer relevant because no commercial value among readers and community. The aim of this study is to propose the use of Jawi for children to learn by using interactive games. The lack of Jawi use and the notion that difficult to learn, make the young generation now beginning to forget Jawi. Jawi should be learnt during the childhood. Looking at the trend of childhood is now over to modern technology such as is more like to learn in the fun way, so from that Jawi interactive learning game should be to attract children to learn about Jawi. Nowadays, some parents prefer to use books and another learning method such as flash card as material of teaching but as we can see, the children may give some reasons or take times for the children to open and take the books to prepare during learning times compared to open PC's and playing games. The focus of this Jawi games is to develop Jawi games for children from 10 to 12 years. To evaluate the usability and the effectiveness of Jawi games that has been developed by applying game-based learning principles [1]. This project has been successfully developed by using Agile Model Methodology.

**Keywords:** game-based learning, agile model methodology

## **1. INTRODUCTION**

The aim of this project is to propose the use of Jawi for kids to learn by using interactive games. The lack of use Jawi and the notion that difficult to learn, make the young generation now beginning to forget Jawi. Jawi should be learning at the childhood. Looking at the trend of childhood is now over to modern technology such as is more like to learn in the fun way, so from that Jawi interactive learning game should be to attract children to learn about Jawi.

## **2. PROBLEM STATEMENT**

Nowadays, some parents prefer to use books and another learning method such as flash card as material of teaching but as we can see, the children may give some reasons or take times for the children to open and take the books to prepare during learning times compared to open phone and playing games. At last, the children do not really study and lack of use Jawi. This Jawi Games interactive learning are able to overcome some problems that arise on some applications according to the learning Jawi for kids. Other than that, the kids tend to get bored with current method of learning Jawi by applying Game-Based Learning principles that may bring some attraction for kids who still cannot read or write Jawi [2].by aircraft manufacturers and aviation regulators are reasonable and representative of the trends implicit in actual experience.

## 1.1 OBJECTIVES

- i. To identify the suitable features for Jawi games on learning Jawi for kids from 10 to 12 years by applying Game-Based learning principles.
- ii. To develop Jawi games for kids from 10 to 12 years.
- iii. To evaluate the usability of Jawi games that has been developed.

## 3. METHODOLOGY

The development of games is very complex and the game's success is based on methods of game development [3]. This games development will propose on agile model. Agile models are better able to deal with more complex and uncertain projects (where project objectives and possible solutions are not clear from the beginning [4]).

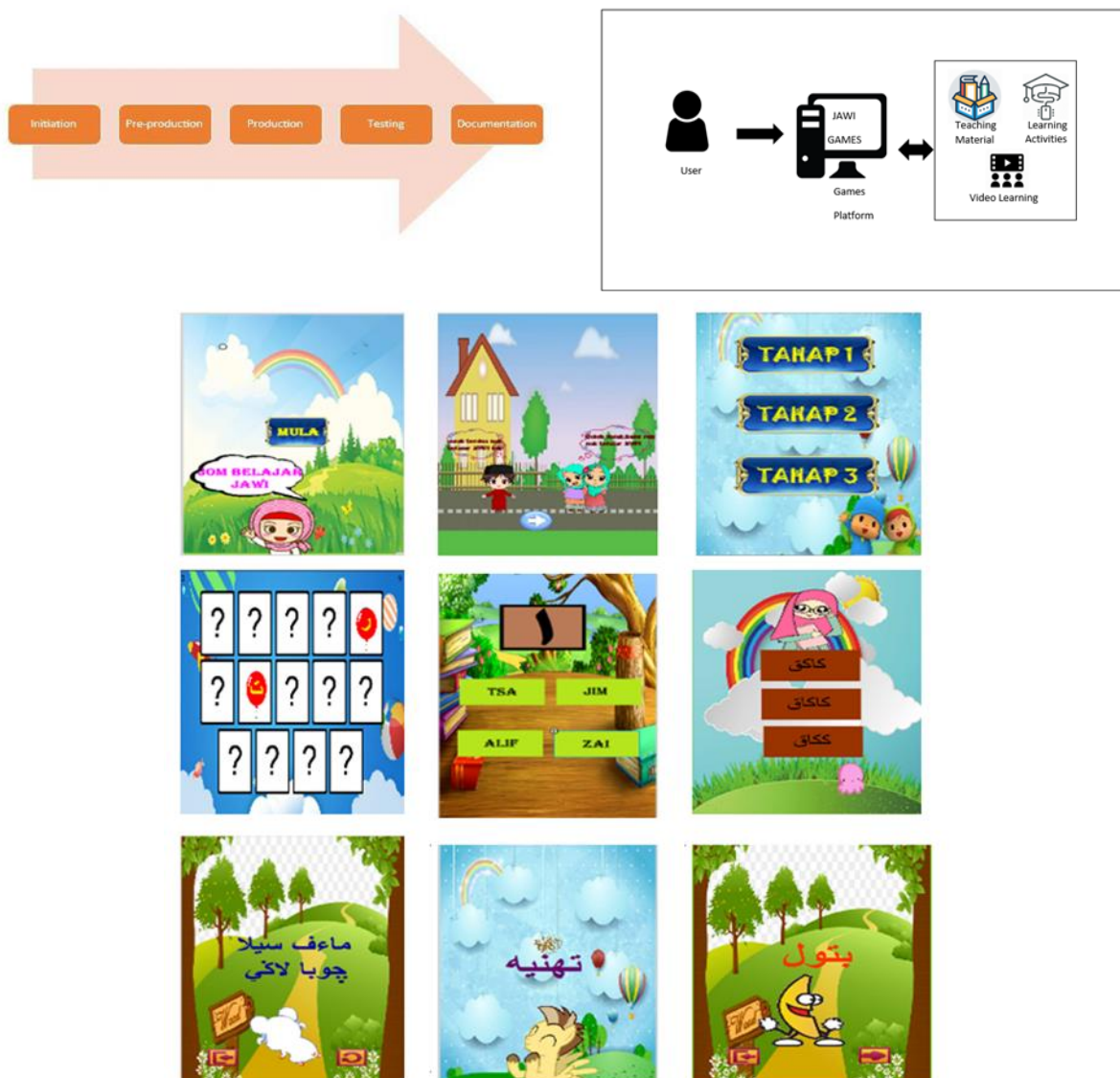


Figure 1. Games Interfaces

#### 4. CONCLUSION

As the conclusion, this Interactive Learning Jawi games can help students to improve in learning Jawi. The objectives of the project were emphasized which are focused on primary school students. Comparing to the traditional ways of learning Jawi such as learning in class or doing exercises through books and papers, this game will help students to focus more as it made some improvement by combining technology and learning.

#### REFERENCES

1. Ahmad, S. Z., Aurani, J., Mazlan, U. H., & Nurhalik, M. S. (2018). Bijak Jawi: An Interactive Multimedia Reading Tool Using Phonic “Makhraj” Technique for Preschool Children. *Journal of Advanced Research in Computing and Applications Journal Homepage*, 11(1), 9–16. Retrieved from [www.akademiabaru.com/arca.html](http://www.akademiabaru.com/arca.html)
2. Al-Azawi, R., Al-Faliti, F., & Al-Blushi, M. (2016). Educational Gamification vs. Game Based Learning: Comparative Study. *International Journal of Innovation, Management and Technology*, (July), 131–136. <https://doi.org/10.18178/ijimt.2016.7.4.659>
3. Al-Azawi, R., Ayesh, A., & Al-Obaidy, M. (2014). Towards Agent-based Agile approach for Game Development Methodology. *2014 World Congress on Computer Applications and Information Systems, WCCAIS 2014*, 3–5. <https://doi.org/10.1109/WCCAIS.2014.6916626>
4. Rens Kortmann, C. H. (2002). Agile game development: lessons learned from software engineering. *Journal*, 52(1), 1–5.



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2. Pihak Perpustakaan ingin memohon kelulusan YBhg. Profesor untuk membuat imbasan (*digitize*) dan memuat naik semua jenis penerbitan di bawah UiTM Cawangan Perak melalui Repositori Institusi UiTM, PTAR.
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Sekian, terima kasih.

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