



## Paddyville: Learning Paddy Cultivation through Role-Playing Game

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***Abstract***—Paddy cultivation process is a step-by-step routine that should be followed when planting the paddy plants. Paddy is important in Malaysia as it is the staple food for most Malaysia. To cultivate this important grain of rice, it needs a lot of passion and care. There are a lot of preparations and maintenance in the cultivation process. However, as important as it is, people are prompted to forget about farming when the country is developing so much every year. Buildings are built and houses occupied most of the lands. Younger people nowadays have become ignorant to the cultivation process of the rice they eat every day. Therefore, the purpose of this project is to design an informative game on the agriculture sector mainly the process of paddy cultivation called PADDYVILLE, to develop a Role-Playing 2D game application as a learning method on paddy cultivation process and to evaluate the acceptance of users in terms of enjoyment, experience, and knowledge as a result for playing the game. This game used Extreme Programming for its methodology because of how flexible it is towards changes. This game used ARCS Motivational model to evaluate the user acceptance while playing the game. The overall findings showed that the game manages to accomplish all the objectives. However, the prototype showed that there are plenty rooms for improvement. Recommendations can be referred to improve the game, such as by adding a money system to expand the game that allows user to buy and sell items.

***Keywords***—learning, paddy, cultivation process, role-playing game, 2D-game