

Developing and Educational Effectiveness of A Gaming-simulation "Paint it Black" as a Tool That Impresses Problems about Protection of Nature to Players

Rcon-Laboratory

Hikaru Tamaki

1. Background/Problem of protection of nature

The importance of the protection of nature is asserted. However, there is a problem in the attitude that is overconfident of protection of nature. For example, it is reported that the activity of the deep occupation of the nature and relation are denied, by groups of conservationists.

Therefore, to understand that the protection of nature is connoted into the unfair relation between nature with the human beings and the environmental education tool for that is necessary.

2. Purpose

- 1) Designing such a gaming simulation that impresses that natural protection is connoted into the unfair relation between nature with the human beings.
- 2) Inspecting the study effect of the gaming simulation that I designed.

3. The design of 'Paint it Black'

I named the gaming simulation that I designed 'Paint it Black'.

3-1.The intention of 'Paint it Black'

- 1) 'Paint it Black' is simulating protection of nature and deforestation. And the simulation is planning that the player understands the system of protection of

nature and deforestation.

- 2) In the case that deforestation occurred in the game, the damage that the human beings receives set up it as the forest consists smaller than the damage that receives. And the human beings can do protection of nature, be set up as the effect is uncertain.

3-2.Model of the relation of nature with the human beings

I expressed the relation between nature with the human beings by the model like Figure1.'Paint it Black' is designed based on the model.

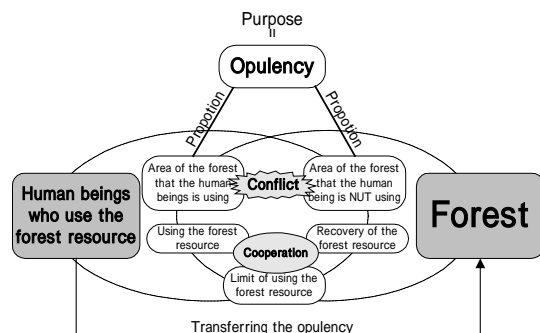


Figure1. Relation between nature with the human beings centering around conflict

3-3. Concrete designs of 'Paint it Black'

'Paint it Black' can be played with about 10 people to 40 players. The master of gaming simulation is necessary to carry out the gaming simulation. Some assistants (about 1 or 2) may become necessary.

Two players become 1 set and conduct the game.

The game material like the following is necessary about 1 pair.

One of the pair is a “Black Player” and the other is a “Red Player”. The “Black Player” is expressing the human beings and the “Red Player” is expressing the forest. The “Black Player” and the “Red Player” try to increase the mark in all of both. For that they must increase each position.

It is expressing “the application of the forest” and “deforestation” “Recovery of the forest resource” to take the position. Also the protection of nature is expressed with the movement of the mark.

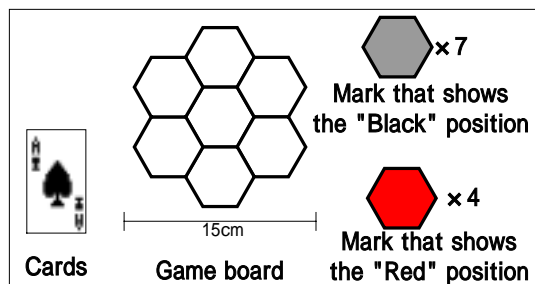


Figure2.Game material needed for 1 pair

The players are not told what the symbol of the game means until the game ends. I think that the players can understand the system of the relation between nature with the human being, by conducting an abstract game. I obtained this idea from the sex education game ‘Pomp & Circumstance’ designed by Cathy Stein Greenblat.

4. Debriefing of ‘Paint It Black’

- 1) After game completion, players are requested to replace their experience of the game with the real event. And they are requested to discover some problems to the relation of nature with the human beings.
- 2) The players are requested that they reflect

on the solution of the problem that discovered.

The players describes 1) and 2) to "debriefing sheet". I analyzed the description.

5. Experiment

The experiment object was 40 university students and 42 senior high school students. I hypothesized the situation that 'Paint it Black' is conducted with the lesson of the school and chose the sample like that.

6. Result of analysis

6-1.The problems that players discovered

Most of the players interpreted the contents of the game that "deforestation occurred".

6-2.Solution that the player proposed

There were few opinions that "we should do natural protection" even in either experiment. The opinion of such meaning that “We should prevent that deforestation occurs” occupied very high proportion.

The result of the experiments suggests that players held cynicism to protection of nature.

7. Conclusion

Many of the players understood the problem of natural protection. The possibility that this case is the influence that played 'Paint it Black' is high.

However, the experience that was obtained with 'Paint it Black' is personal and the contents of study differ by the player. Therefore the discussion needs to be conducted after game, to use 'Paint it Black' effectively.