### Games-Based Learning Model To Enhance Entrepreneurship and Creativities to student in elementary schools



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# Introduction

• "Games-based learning model" is another way to call attention to the children to learn more. The model which consist of simulation games has been prepared to improve education and knowledge skills for student in five grade of elementary school in order to encourage their interested in learning more.

# Entrepreneurship and Creativities

- The qualification of entrepreneurship and creativities has been the important abilities to develop and enhance for their career to survive themselves in business in the future.
- Entrepreneurship and creativities as a contributor to business career and as a relevant occupational choice are offered the opportunity to become an entrepreneur themselves together with creativities qualities and motivation.
- Therefore the importance of entrepreneurship and creativities should be enhanced and develop at an early age, preferably in initial, i.e., elementary education.



# Why? Student grade 5 in elementary school

- In elementary school, students have learned in class to concentrate in short attention with this subject, unlikely the most favorite that they spend more time with is the computer games. Therefore, the games have been applied to be the part of the learning.
- Research was carried out in "Life Experience Subject", which is the instructor subject for grade 5 student in elementary curriculum in Thailand. Life Experience Subject has consisted of several general basic in career and occupation contents

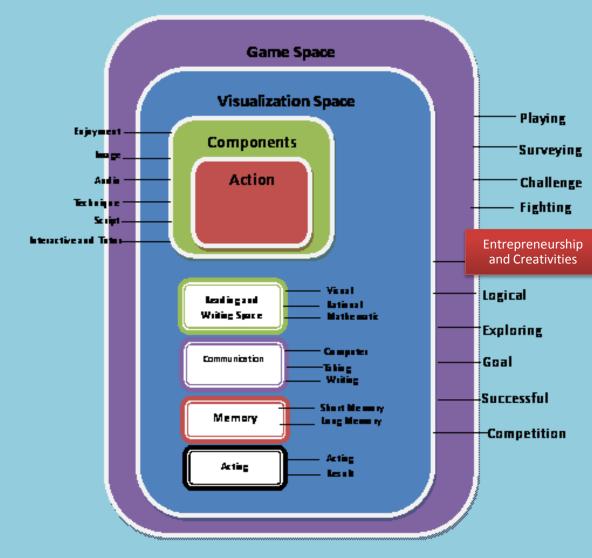
# **Problem Statement**

- In Computer era, most of children have lost attention in class and short interested in learning. Game addict fever are the social problem in Thai society now. Furthermore they not concentrate in subject that knowledge is essential in any career field at all compositions.
- "Games-based learning model" is another wa to call attention to the children to learn more



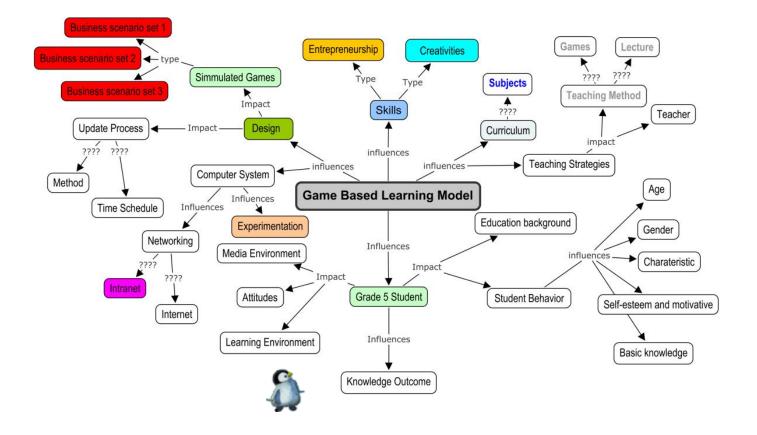
# GOM Model

#### Game Object Model of Amory, 2001



which has been designed by the basic principle of learning conceptual. In which how to achieve of the teaching deduction by games. The games has combined by the components of playing, exploring, challenging, adventure, fighting, enjoying, image, audio, technique, script, interactive and tutor. The object of games are practices the learner's skill and generated the visual concept GOM Model

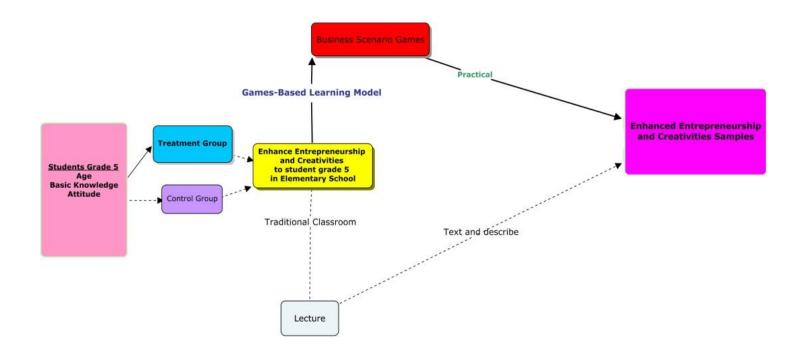
### **GAMES-BASED LEARNING MODEL** ENHANCE ENTREPRENEURSHIP AND CREATIVITIES TO STUDENT IN ELEMENTARY SCHOOLS



# Objective of research

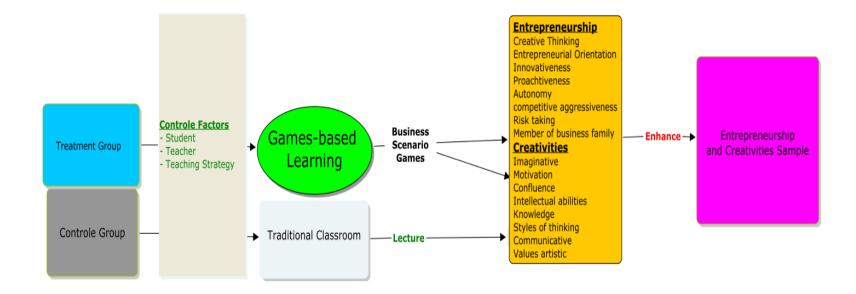
- 1. To develop determine and efficiency learning model to enhance entrepreneurship and creativities of student grade 5 in elementary school. (Figure 1Games-based learning model structure)
- 2. To compare the achievement before and after learning with GBL model. Develop games for education to enhance and increase entrepreneurship and creativities to student. (Figure3: Proposed Model)
- 3. To investigate the impact of GBL model have affected to the students learning behavior.

# **SCOPE OF THE STUDY**



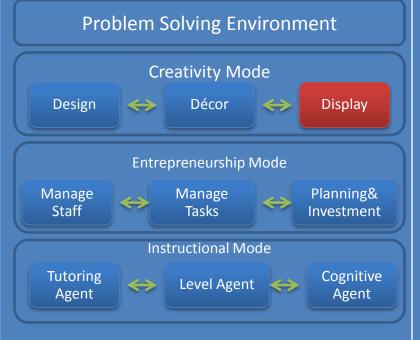
GBL to enhance entrepreneurship and creativities concept
framework

### **Research Methodology**





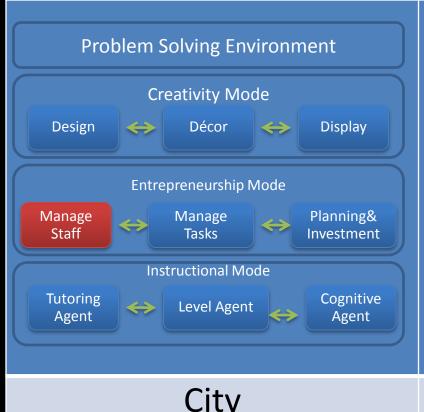
## GBL Model: business simulator scenario games Set No.1



**Convenience Store** is a sophisticated business simulation scenario game which the student practiced to runs a retail business of convenience store on the location. It's targeted at students who are ready to explore business and creative designed by creation their shop, decoration and design for their self segmentation. Planning for stockyard inventory controlling, ordering the goods providing to serve the customer need. Displaying and control all asset within each store and planning for the capital investment in new stores for more income. Its models real-world retail operation simulated actual business and product sales cycles, and incorporates competitive pricing structures and hiring enroll management. It's really closed to in chart of entrepreneur practice for learner.

#### **Convenience Store**

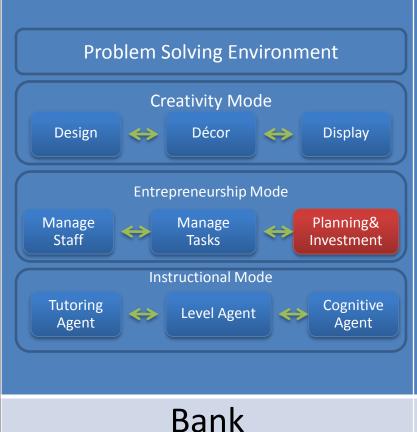
# Game Set No.2



#### Business: City Management (Set 2)

City Management: Based on the principles of Management examines the fundamental management theories and the evolution of management thought and action with all assignment to serve the citizen and government to develop the city. Emphasis the environment city décor balanced equally between the traditional management and practices and the changing in requires of management in a dynamic. Handle all the solution attacks the city such as the pollution, disaster and protesting. As of Students learn how to develop and utilize effective entrepreneur in problem solving, team building, leadership and skills to meet the unpredictable of change.

# Game Set No.3



#### **Business: Bank Operation (Set3)**

Bank operation is designed to foster better understanding the bank management practices. It provides students, the unique opportunity to steps in to decision-making of the General Manager of the Bank. Learner are responsible for establishing and monitoring all the major components of the bank, including everything from staff salaries to each department such as courter withdraw and deposit service, Safe service, Exchange, Loan and Investment Departments. As learner can moves around the bank building to control all, they gather information needed to make decision such as decreasing working time or increasing capital and ATM settlement in several location to gain more income. However, as in real bank activities, the complexity and potential effects of each decision much be carefully and risk and manage and monitor every step of work and takes response for all failure occurred.

# 5 Majors of managements

- All scenario business game models have mentioned the attitudes and behaviors of the business and organization in five major areas of managements:
  - Spending and income decision such as operating budget, new hires, incoming revenue and management.
  - Work scheduling issues
  - Work standards, prestige, and enrollment;
  - Housing, office and all other facilities and
  - Performance indicator.

# Result

| GE        | 3L             | Pretest       | Posttest | Enhance |  |  |  |
|-----------|----------------|---------------|----------|---------|--|--|--|
| Lecture   | Mean           | .0779         | .1680    | .0943   |  |  |  |
|           | Ν              | 250           | 250 250  |         |  |  |  |
|           | Std. Deviation | .29759 .45411 |          | .29279  |  |  |  |
| GBL Model | Mean           | .1016         | 3.4531   | .9883   |  |  |  |
|           | Ν              | 250 250       |          | 250     |  |  |  |
|           | Std. Deviation | .31535        | 1.03173  | .10783  |  |  |  |
| Total     | Mean           | .0900         | 1.8500   | .5520   |  |  |  |
|           | Ν              | 500           | 500      | 500     |  |  |  |
|           | Std. Deviation | .30674        | 1.82926  | .49779  |  |  |  |

Table 3: Show the one tail compare between pretest, posttest and enhancement ofGames-based Learning Model compare with lecture

The enhancement of entrepreneurship and creativities of GBL model group has a higher mean score than lecture group.

|                            | Ν   | Mean    | Std. Deviation |
|----------------------------|-----|---------|----------------|
| Enhance score of GBL Model | 250 | 3.0200  | .77848         |
| Enhance score of lecture   | 21  | 1.04761 | .21822         |

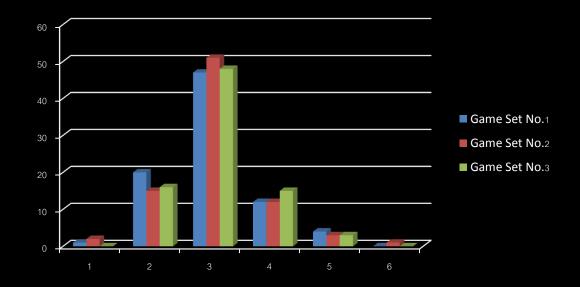
The same as Standard deviation and number of student who achieve learning by games-based learning more than lecture, it very high difference.

| One-tail t test            | Ν   | Lower<br>Bound | Upper<br>Bound | Variance | Mean | Std<br>Deviation |
|----------------------------|-----|----------------|----------------|----------|------|------------------|
| Enhance score of GBL Model | 250 | 2.92           | 3.11           | 0.61     | 3.02 | 0.77             |
| Enhance score of Lecture   | 21  | 0.94           | 1.14           | 0.48     | 1.04 | 0.22             |

There was a statistically significant difference between the pre-post treatments of students learning behavior changed.

### Distribution of enhance point by games sets of GBL Model students

| Game Set Number * Enhance Point Cross tabulation of Games Set 1-3 |   |               |      |      |      |      |       |    |
|---|---|---------------|------|------|------|------|-------|----|
|   |   |               |      |      |      |      |       |    |
|   |   | Enhance Point |      |      |      |      | Total |    |
|   |   | 1.00          | 2.00 | 3.00 | 4.00 | 5.00 | 6.00  |    |
| Games Set   | 1 | 1             | 20   | 47   | 12   | 4    | 0     | 84 |
| No.   | 2 | 2             | 15   | 51   | 12   | 3    | 1     | 84 |
|   | 3 | 0             | 16   | 48   | 15   | 3    | 0     | 82 |
| Total Students     3     51     146     39     10                 |   |               |      | 1    | 250  |      |       |    |



# CONCLUSION

- Games-based learning model has more enhance point than lecture and the total of student of games-based learning has more achieve than student who study by lecture.
- Therefore, we can use the Game-based learning to replace traditional teaching. Especially, in the course which is need to practice or training the real word simulation for students in elementary school.
- Learner can take content that was adapted into a game to be more attractive and easier and better understanding the knowledge contents of the subject.