A SELF-EVALUATION BASED ON THE DISCUSSION AND DECISION IN EXPERT S' BUSINESS GAMING

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ABSTRACT

This paper presents heuristics of Japanese business experts in business gaming. The heuristics that were derived through gaming and were based on *Paper Plane Game* shows their capability of comprehending team activities in a way from gestalt to detail. Issues and decisions extracted from their protocol can be used for not-yet experts to compare themselves with the experts; how they understand the situation and make decisions. Therefore, the extracts could be a useful motivation in encouraging players to debrief for "of-the-players," "by-the-players," and "for-the-players" in debriefing.

SEMANTIC RICHNESS NEEDED

In late 1970s, one of the authors was a scientific observer at the executives meeting in one of Japanese major computer makers, who were conducting their roles as another corporation's executives in managerial simulation. There, they were acting as those who would have been executives of the corporation from which the simulation model, actually a simple financial one, had been built. Their dialogues for communication sounded at a highly strategic level in corporate management. Even on a simple board game, participants would do as real executives on condition that they would have experiences enough to run their own business.

In order to evolve this implication into debriefing of gaming, research focuses on decisions of teams themselves in gaming instead of numerically rich outputs from simulation models (Ichikawa, Mukuda and Inaba, 1992). By applying Factor Analysis, the various decisions, which are of course numerical, can be interpreted inducing us to generate statements, which are a string of words, and then the strategy of each team can be evaluated only on the basis of decision's consistency.

For a game run, first each team is to establish their own goals through discussion and by writing them down to be clear enough. The teams are expected to have a logical correlation between their goals and a series of their decision-makings from the first round to the last round. The evaluation is based on how many degrees they have kept consistency between their goals and the interpretations on their decisions at each round.

For an example, a certain team out of eight teams of a game run did indicate the consistency of their strategies like "Influencing consumer preference with brand image" at Round 2, "Producing high quality goods and selling them with intense sales promotion" at Round 3, "Conducting an advertising campaign and increasing advertising costs" at Round 4 and so on. Their initial strategies were "Brand image oriented", "First class products", and "Small business is beautiful". The team showed the best team performance in strategic decision-making.

ABSTRACTION AND DETAIL

The next research target is to be based on discussions among players, to derive a thinking model of gestalt and an acting model of detail.

The game employed is "Planes or bust" designed by Legg(1994); in this paper it is called *Paper Plane Game* for convenience.

Paper Plane Game has four characters in terms of this research; (1) highly abstracted level, (2)

planning capability, (3) different roles, and (4) real manufacturing. To be mentioned here among them are (1) and (4) because these are essential for Japanese players.

It is assumed that the attitudes of decision makers to their cognition, thinking, decision and behavior reflect their own culture. In Japanese culture, the traditional way of thinking originates from the totality of human being and the environment. The time and the space are a gestalt in a sense. For examples, western paintings use the perspective technique; Japanese traditional paintings such as *Ukiyoe* show both the total as general view and details as partly realistic drawing.

Considering cultural differences, the highly abstracted level and the real manufacturing characteristics of *Paper plane game* correspond to the general view and the partly realistic drawing. Therefore, the game should be suitable for Japanese team activities aiming at knowledge creation, wisdom sharing and communication effectiveness.

DIALOGUES, DECISION-MAKINGS AND ACTIONS

The following protocol analysis represents results of team activities of Japanese business experts. They are considered to have achieved a level of standard for measurement.

Min.	Issues and Decisions
16	Debate of the investment for the machine on the bottleneck
20	Simulation on the effect on investment for the bottleneck
22	Measurement of the real time length on the bottleneck, experiment by all members
27	Agreement among all members that "Transport" does control all operations
31	The person allocated to "Write fuselage" starts practice
33	3-min. rehearsal starts
34	Opinion on the inefficiency of traffic lines
50	15-min. game run starts
54	Question about the starting time of the game run (no answer)
65	The game run ends
73	It is difficult for "Transport" to see the situation in full view

According to a part of the dialogue above, it is clear that players can consider themselves as one of the subjects in the debriefing phase after they really participated in gaming as one of subjects.

DEBRIEFING AND EVALUATON

Debriefing is said to be the most important phase of any gaming. Practically however, it is one of the best examples of "sounds easy but difficult to do." Most facilitators try to let players debrief by themselves and then often fall into an unsatisfactory conclusion. They need something good to motivate teams.

Currently, a self-evaluation sheet of about 30 variables made of the protocol is available. It questions players about issues among the experts' discussion, decision, and action. Through several gaming sessions, the self-evaluation sheet is being in test by letting players to compare their ones with the experts' ones. Some players can evaluate by themselves and then they can get the correct answers (of course, there are many correct answers in this case). Further research should be taken on players' written sheets being gathered.

References Available Upon Request