

Development system of Facilitator's skills to manage group discussions by gamification

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Abstract—In recent years, cases that companies introduce 'facilitators' have been increasing. Facilitators contribute greatly to revitalization of conversation, such as withdrawing diverse opinions and making consensus in multiparty discussions and brainstormings.

Meanwhile, the facilitator has many roles to play and it takes a lot of time and experiences to become a good facilitator. Therefore training of facilitators is very hard. According to the concept of gamification, this research aims to train the behavior of the facilitator in the correct direction by offering favorable behaviors to the facilitator in the form of mission candidates.

In this system, the facilitator trainee handles a conversation while holding a smartphone equipped with a mission system. The facilitator trainee chooses and accepts a preferable mission. The supporting system automatically or a human evaluator manually evaluates the degree of mission completeness and returns feedbacks to the facilitator as a reward. In this paper, we describe the concept of the proposed system and the mission contents, consider the effectiveness and consider the implementation method.

I. RESEARCH BACKGROUND AND PURPOSE

Facilitators may be introduced to solve various problems in the conversation environment in discussions by many people such as meetings and brainstorming. The facilitator is a "moderator" in the discussion, it is a reassuring entity that always intervenes in the discussion in a neutral position and coordinates high-quality conferences.

Meanwhile, the facilitator has many roles to play, and in order to become a facilitator for one person, it is necessary to acquire the "Skills to design a forum for discussion", "skills to facilitate interpersonal relationships", "skills to structure the flow of discussion", "skill of consensus building". [1] In order to acquire these skills, it is becoming extremely difficult to train facilitators without having enough experience of facilitation

In this research, it is a major object to lower the threshold for facilitation by effectively supporting the facilitator's four skills by ICT. As a part of this, in order to support "skills to structure the flow of discussion" in the past, we developed a system that enables visualization of discussion structure by mapping remarks of participants on information terminals. In this year, focusing on "skills to facilitate interpersonal relationships", we will provide facilitator support based on the concept of "gamification".

Gamification is an attempt to solve problems and improve customer loyalty while enjoying by including gaming elements in existing systems and services, and in recent years introduction of this concept is becoming more active.

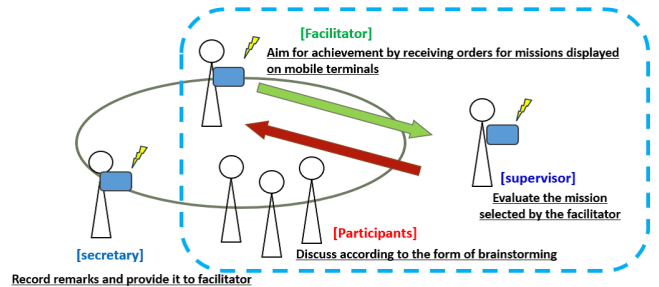


Fig. 1. System configuration

Adachi developed "ScoringTalk" with the objective of measuring participants' speech volume in real time from the opening degree, scoring each participant from the utterance amount, and raising the score. [2] Also, in order to improve the motivation of the participants, Yoshida et al. conducted research that shows positive affirmation to the participant by pressing a button against the excellent opinion of the participants, and they confirmed that the productivity of discussion is improved. [3]

In this paper, following these examples, we aim to improve interpersonal skills by controlling the facilitator's behavior in a desirable direction by "mission system".

II. SKILLS TO FACILITATE INTERPERSONAL RELATIONSHIPS

Interpersonal skills are one of the four skills proposed by the Japan Facilitation Association as mentioned in the previous section, and as you can imagine from the sense of the word, skills of interpersonal relationships.

Participants in the discussion are not necessarily able to perfectly communicate their own intention but misunderstanding of the content of the participants or the like due to lack of argument or misunderstanding of the contents of the remarks will result in a misunderstanding of the problem between the participants.

In order to avoid these situations, the facilitator needs to take each message of each participant firmly and communicate its contents to the surroundings. In addition to understanding the contents superficially, it is necessary to pull out the real intention included in the message.

Specifically, it is necessary to properly perform listening, repetition, questions, assertions, and decoding of non-verbal messages according to the scene, and this skill will appear in the way how much it can be done.

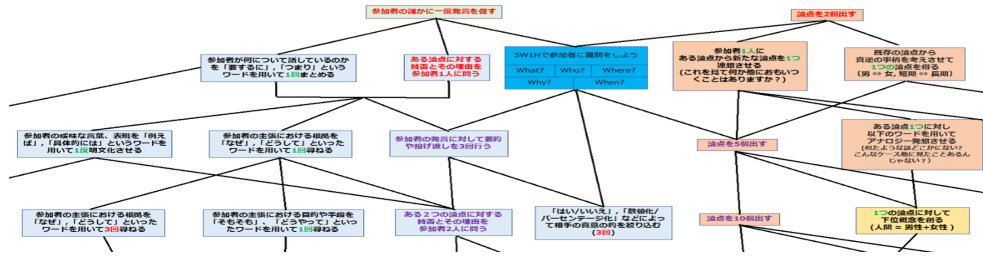


Fig. 2. Part of the missions tree

III. COMMUNICATION SKILL DEVELOPMENT SUPPORT SYSTEM BY PRESENTING MISSION TO FACILITATOR

A. System overview

This system presents the remarks and actions that the facilitator should do in the place of discussion by multiple people to the facilitator in the form of "mission", determines whether or not to achieve it, and feeds the result back to the facilitator. The facilitator can compare the flow of the current discussion and the list of missions and guide the discussion to a better direction by selecting and achieving the mission suitable for the situation. In addition, the facilitator can earn points by achieving the mission, and it is expected that it will aim for achievement of the mission to motivation to take a high score.

Figure 1 shows the configuration of the system. In the previous fiscal year, under the system "structuring the flow of discussion" that the facilitator mapped using the log provided by the secretariat, we provided facilitator support in an environment that encompasses secretaries in addition to participants and facilitators. In this research, in the form of function addition to the system, the facilitator intervenes in the participant's discussion through the mission, the system itself or the supervisor observes the situation and implements the function of returning the feedback to the facilitator.

The form of discussion is supposed to be brainstorming in view of capacity development of facilitator's consensus building skill, and facilitators draw a wide variety of opinions from participants in the discussion and ultimately derive unique conclusions.

B. Outline of mission

The mission imposed on the facilitator must be in conformity with the facilitator's code of conduct. In this research, about 60 missions were considered with reference to Horii and Yoshida's books. [4],[5],[6]

The mission is classified by four factors, "Adjustment of participant's speech volume", "Expanding discussion points", "Summary and verification of speech", "Arrangement and integration of speech".

As shown in Fig. 2, the mission to be presented is assumed to be a tree-like one in which the number is small at the beginning, but the number that can receive orders from the wider spread increases more rapidly by achieving the mission. At the beginning, I am starting with a simple mission and

thinking about a mechanism that enhances versions and rare missions in limited circumstances that are released for each achievement. According to it, we define an evaluation method that will increase the score that difficult missions get.

The argument that the facilitator especially wanted during the discussion was set as a large mission and it was designed to be achieved naturally in the course of achieving a normal mission.

C. Evaluation process

As mentioned earlier, the facilitator's mission is a hybrid form in which the system can evaluate what the system can judge by itself, and evaluators called supervisors evaluate things that the system can not be judged. An example of a mission that can be judged by the system is simple such as "keep the number of remarks of each participant constant", "put out a new topic one". The supervisor will evaluate missions that will step into other conversation contents.

The supervisor evaluates according to some checkpoints prepared for each mission at the time of evaluation and returns achievement if all of them are achieved. Also, even if it is not achieved, feedback on what was wrong is returned according to the checkpoint.

Apart from the contents of the mission, we also evaluate the appropriateness of choosing the mission in the discussion, and also make it possible to visualize the facility judgment ability of the facilitator.

IV. SYSTEM IMPLEMENTATION

It is thought that the present system should be developed in an application format so that orders and judgments can be easily made on a mobile terminal such as a smartphone.

Currently, we use Unity to make screen composition and UI design. The reason for choosing this is because it is compatible with various multi-platforms that can develop games with non-programming and has high flexibility, so it can be developed at high speed.

As a communication method between the facilitator and the supervisor's terminal, we use the framework "Photon Unity Networking". Since it is a communication method only for clients that do not need to decide a host, communication processing can be easily implemented.

V. CONCLUSION

In this research, we devised a "communication skill development support system based on mission presentation" introducing the concept of gamification to support facilitator's "skill to facilitate interpersonal relationship". It is an overview that aims to intervene in the discussion of participants through a mission and aim to make it an ideal forum for discussion and this time devised the contents of the mission and methods of evaluation.

The future task is to actually develop a communication skill development support system. Also, thinking about indexes and experimental settings that can evaluate "What is this system with is good?", "What better is compared with without system?" Etc .

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