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A Method to Carry Out Brain-Writing by A Lot of People

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When some project needs to be solved by divergent thinking, what we should refer to is not only information directly related to the project, but also some other different, unique and original information. Therefore, when we have divergent thinking, we need to work with participators in different majors. In order to get information from wider range of knowledge, we need people from different professions and knowledge backgrounds. At the same time, when the number of participators is big during the activity of divergent thinking, participants must be implemented to read appropriate number of ideas within a certain period of time. However, in present's divergent thinking, because of time's and other factors' limitation, it's difficult for divergent thinking to increase participant's number.

In order to achieve divergent thinking with a large number of participants, I conducted preparatory experiments for "Brain-Writing (It is called BW for short below.)", "Brain-Storming" and "KJ method". The purpose of these experiments is to find out "Which kind of divergent thinking method could be the core of new divergent thinking method with a lot of participants".

When we carry out a Brain-Storming session, as the number of ideas increases, it becomes difficult to refer to all of them from a remote place. In addition, because participants have to manifest their own ideas in a face-to-face meeting, the generated number of ideas is usually smaller than that of BW. At the same time, it is impossible to avoid the production blocking problem. When we use the KJ method, online participants

cannot contribute to create islands of ideas, which spoils the online participants' motivation.

In contrast, when we carry out BW, online participants are required to see only one idea sheet which includes reasonable number of ideas to grasp at once. In addition, in a BW session, because the idea sheets change on a regular basis, online participants can see new idea sheets, which could stimulate their creativity. Thus, I concluded that BW is suitable for the core of a new divergent thinking method with a lot of participants.

Based on the results of the preparatory experiments, I propose a new divergent thinking method with a large number of participants, named "Hydra-Brainwriting" (it is called HBW for short below). In a HBW session, a large number of remote participants contribute to a BW session via a proxy participant. In this sense, each remote participant behaves as if a participant of the BW session.

To be specific, 4 or 5 people conduct a usual BW session in a face-to-face setting. It is assumed that these participants are experts or stakeholders of the subject of the BW session. Additionally, a proxy BW participant also joins the BW session. Behind the proxy participant, there are a large number of online participants who have various knowledge backgrounds. These online participants cannot refer to ideas of each other; they can only refer to an idea sheet shown by the proxy participant. Every online participant creates new ideas referring to idea sheets shown, and their new ideas are sent to the proxy participant by Internet. The proxy participant does not create his/her own ideas, but he/she select about three ideas from huge number of ideas which the remote participants sent to him/her by using a semi-automatic idea selection system. Since the BW participants are experts, the quality of their ideas and the relevance to the project are guaranteed. At the same time, it becomes possible to incorporate reasonable number of ideas from diverse viewpoints.

In order to prove the efficiency of HBW, we conducted an experiment. The experiment is composed with five rounds of BW. Every round lasts for five minutes. During each round, each BW participant should create 3 ideas and write them on an idea sheet. At the same time, online participants are required to send any number of ideas to the proxy participant by using a mobile phone APP. Then, the proxy participant selects these sent ideas by using a semi-automatic idea selection system. Selected ideas are provided to the BW participants. This process should be last for five rounds.

The experiment showed that, from the content of HBW participants' ideas, the rate of creating unique ideas of online participants is big than the BW participants. At the same time, in generally, both the BW participants and online participants refer to ideas each other to create new ideas.

Consequently, this thesis proposed a novel divergent thinking method with a large number of participants which aims at achieving both to widen the scopes by involving a lot of remote online participants and to restrict the number of the ideas generated by the online participants within a reasonable number. As a results of the experiment, I confirmed its usefulness and practicality.