

OPP: WORK, LEISURE, & SOCIAL PARTICIPATION

Morning SNS roll-call message and elders' replies: Word-based analysis on seasonal change

M. Mitsuoka¹, R. Watanabe¹, R. Mitsuoka¹, H. Murayama¹, S. Tokuga², R. Otsu³, C. Yamaguchi³, S. Ishihara⁴

Purpose During the COVID-19 period, elders had severe problems, such as social isolation and difficulties in keeping physical activities. NPO "Energize older people by health degrade prevention," Oita prefecture local government and ICT company Somelight Co. Ltd have different promotive activities, including lectures on mobile devices, zoom video conferencing, and LINE messenger. One of these projects, Somelight Co. and NPO, began the "Nou-Waka 365 (Brain-Young)" morning roll-call in LINE in July 2021. 82 elderly participants received mass messages at 7 am every morning. The mass message includes advice on health, nutrition, physical activities, and seasonal greetings. Although making a reply to the mass message was voluntary, many of the participants replied. Staff at Somelights made different replies to each participant. Three years and more have passed; the roll-call and reply activities are still active. This paper presents text analysis results on a participant's replies through seasons. **Method** Text analysis was conducted on the replies of Participant "N," a highly active member who consistently responded to almost all roll-call messages in 2023. Her replies, totaling 903 sentences in 421 responses, were analyzed using KH-coder text analysis software, focusing on word-to-word cooccurrence frequencies. Multidimensional Scaling made plots from the word cooccurrence matrix. **Results and Discussion** The analysis of 315 sentences made by Participant "N" in Jan-Mar 2023 (as shown in Fig 1A) revealed different activities. The green word on the left represents local cooking recipes, indicating a strong interest in culinary activities. Blue words depict introspective episodes of human relations, suggesting a reflective nature. Orange words signify shopping episodes, possibly linked to the rise in temperature during early spring days. These findings provide valuable insights into the participant's engagement and interests. Fig.1B shows the result of 245 sentences made in April-June. Blue words are related to outdoor activities like gardening and strolling. Pink and red words are also associated with outdoor activities and mental satisfaction. Fig.1C is the result of 201 sentences from July to September. Since these days are too hot for outdoor activities, gardening and strolling words have disappeared. Her topics about her daughter and son (yellow and gray) appear along with their move. Blue-green words are related to the marriage and ceremonies of her relatives. Light green words are cooking-related. Fig.1 D is the 142 sentences from Oct. to Dec. Pink words are "cold" and difficulties with strolling in cold weather. Blue-green words are related to her husband and friends. Purple words are related to cooking. The result shows the seasonal changes in her physical activities. Throughout the season, her significant interest is cooking. We regard this word cooccurrence analysis of replies as helpful in analyzing the interests of each participant and giving clues to make personalized replies from the service provider.

References

Higuchi, K. (2016) A Two-Step Approach to Quantitative Content Analysis: KH Coder Tutorial using Anne of Green Gables (Part 1) *Ritsumeikan social sciences review* 52(3): 77-91.

Keywords: messaging service, roll-call, reply, ICT

Addresses: ¹Somelight Co. Ltd., ²Cityascom Co. Ltd., ³Oita Prefectural Government Office, ⁴Hiroshima Int'l Univ.

Email: i-shige@hiroko-u.ac.jp; **ORCID ID:** S.Ishihara (0000-0003-4709-5089)

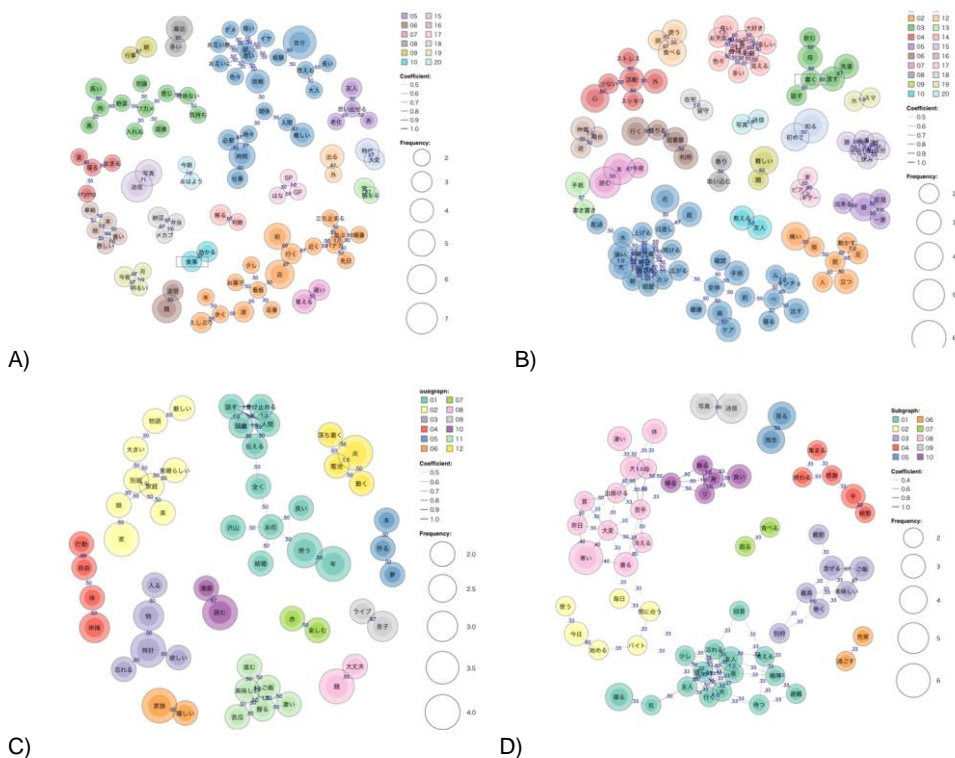


Figure 1. MDS word cooccurrence plots of replies of participant N in four seasons of 2023