Dissertation thesis: Reliability and validity of communication sociomapping: focused on peer-to-peer ratings in small work groups

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Abstract:

The theoretical part of the thesis shortly introduces the topic of group communication and identifies relevant influencing factors. The subsequent summary of the research studying the impact of communication on work group performance illustrates not only the importance of the group communication topic itself, but also the development of diagnostic methods in this field. Such methods are further summarised by focusing on their specific characteristics, differences and available validity and reliability data. The last chapter of the theoretical part briefly describes the sociomapping method measuring group communication with the up-to-date reliability and validity research.

The empiric part of the thesis combines several studies performed to verify the quality of the sociomapping method in the field of group communication. The criterion validity of sociomapping visualization was studied as an accuracy of numeric data translation into distance matrices, the reliability was measured as an inter-rater agreement of interpreting sociomaps. The studies showed the sociomapping being highly relevant in group communication visualization as well as highly reliable in terms of inter-rater agreement.

To verify the quality of sociomapping as a group communication diagnostic tool, we studied psychometric characteristics of sociomapping communication scales measuring the frequency, importance and quality of communication. We demonstrated an adequate time-stability (3 to 6 months) and a significant relational aspect of peer-to-peer evaluation. This finding contradicts the assumption that the evaluation of mutual communication depends mainly on the communication skills of the members or the evaluator strictness or benevolence. Moreover, the construct validation of the questionnaire showed that the communication scales are relating yet in a complementary manner to each other.

The last part of the thesis focuses on intervention effectiveness. We studied whether the improvement of the communication depends on one's own decision to do so. Our experimental study demonstrated that the goal commitment to improve the communication quality helps to increase one's satisfaction with it. Based on this data, we consider team coaching to be a suitable tool for group sociomapping interventions.