

QUANTITATIVE METHODS IN HUMAN RELATIONSHIPS STUDY

Ass.prof.Ph.D. Cornelia TOMESCU-DUMITRESCU
University ”Constantin Brâncuși” form Târgu Jiu
elitomescu@gmail.com

Abstract: *Relationships, whatever their nature, have a distinctive feature compared to other types of relationships. They are based on respect, trust, and reciprocity on common experiences. We all like to be respected for who we are. We rejoice when others trust us. Then we try to live up to the trust we are given and a reward, as we, in our turn, help others. We share different situations, overcome supporting one another, and this leads to further increased confidence and desire for reciprocity. Thus, quality relationships, become successful and enduring partners feel truly fulfilled in them.*

The research sociometry networks working groups exploring socio-emotional relationships, using clearly specified criteria. Sometimes called the network exploration, research sociometry is preoccupied with smaller populations relational models (individual and small group) and large (organizations). The applied sociometry using a number of methods to help individuals and groups in reviewing, expanding and developing psychosocial relations. Both areas of sociometry exists to produce, through their application, greater spontaneity and creativity of individuals and groups.

Keywords: *relationships, sociometry, sociogram, sociometric matrix.*

1. Introduction

Relationships between people is a topic that has been debated in various ways. Each interact with people from various categories (family, friends, work colleagues, business partners, mere acquaintances, strangers, enemies etc.) and relational with each of them differently.

Quality human relationships are relationships that link between people who communicate well with each other, both verbal and non-verbal). In fact, the main reason people stay together in quality relationships is that they can speak and can listen to each other with sincerity, openness and confidence they need who rely on. Relationships, whatever their nature, have a distinctive feature compared to other types of relationships. They are based on respect, trust, and reciprocity on common experiences. We all like to be respected for who we are. We rejoice when others trust us. Then we try to live up to the trust we are given and a reward, as we, in our turn, help others. We share different situations, overcome supporting one another, and this leads to further increased confidence and desire for reciprocity. Thus, quality relationships, become successful and enduring partners feel truly fulfilled in them.

And everyone wonders how I can better involve partners such as myself to get more successful? This question highlights another difference from other types of relationships where

partners are only interested in the question: how to do so other than myself to win more? Unlike the first case, when people are motivated by love, the latter is driven by fear people participating. Are the two essential feelings of the universe, from which all others are derived feelings, emotions considered positive or negative. They are based on how the person came to regard life due to their appointments.

Specialists in communication and relationships have formulated five paradigms of human interaction[1]:

- a. win-lose
- b. lose-win
- c. win
- d. win-win
- e. win-win or no deal

Win-lose - such people are just concerned about them. They want her to win and others lose. They will be making every effort to achieve success at the expense of losing others. People are driven by pride, comparison, competition, ambition for position and power. To get what they want using an authoritarian approach, based on their position, their possessions (usually financial) or their personality.

Lose-win - those who prefer to lose and to let others win, show consideration to others, but do not have the courage to speak and act on their feelings and beliefs. They ask nothing and expects nothing, is relatively easy to please. Despite the apparent calm, there are many people who repress their emotions.

Win - so people think only how to win themselves. Not necessarily want others to lose, but want them to have won in the first place. There are people who think independently in situations of interdependence, without being sensitive and aware of the needs of others. This is due to the so-called "lack mentality", inherited from deceased loved ones or experienced in your own life events.

Win-win - are people who choose to win and ensuring that others gain from interacting with them. People with such a paradigm take the time to seek solutions that will make them satisfied themselves and will satisfy others. Search mutual benefit, having cooperative relations, not competitive.

Win-win or no deal - people seeking first win-win solution. Endeavor to obtain it and if you fail to find the best solution, agree that they failed to understand mutual benefit, interrupting jointly relationship.

The first three models are prevailing in most human relationships. And people get kind of success, but it is not sustainable, as, at some point, get to convince. Success is authentic deep and lasting human relationships based on quality, in which both sides benefit. True success begins with understanding their peers.

2. Qualitative methods for measuring human relationships

Social Behavior Assessment Scale - are designed to collect data on the frequency of occurrence of specific behaviors or skills. Certain scale assessment focuses on problematic social behaviors and others are designed to evaluate people's social skills.

The observation is used to gather information about a person's social skills in natural environments. It can be highly structured, in which case defined behaviors are measured by

frequency of occurrence or occurrence during specified periods of time or from time to time. It may also be less structured, where the narrative is based on an approach to describe a person's social interaction.

Interview - is used to gather information about the strengths and weaknesses on a person's social skills, and to help identify specific deficiencies in this regard. It can be structured with a focus on identification and treatment of specific social skills and less structured, with more emphasis on feelings and perceptions about the social skills of a person.

Case study - "case" can become any concrete situation, past or present, in the case of contexts, details real characters, facts and events, opinions and attitudes, linked together in such a way as to give rise to an issue required to be analyzed, understood, diagnosed or resolved. In its classic form, is performed at small groups of 5-6 people or 10-12 people and has as main objectives: comprehension or understanding of the case; Diagnosis case; choice, opting for an alternative or other action to resolve the case; conceptualization of the case, ie the extraction of conclusions that can be used to explain or resolve, and other cases.

3. Sociometria - quantitative method for measuring human relationships

"Sociometry" - apply a measure (metrum) being social (Socius), establishing a kind of "psychological geography groups" any social unit being first, "a system of preferences and dislikes spontaneous".[2]

Sociometric situation is normally the "ground" and not the "laboratory". The members of a particular group - who already know all between them - are asked which of their colleagues would like to join X X activity or future situation.

The social atom is the key concept in the Sociometry. No social atom is the individual himself, but network of inter-relations that accommodates any subject. One can distinguish two vectors:

1. *Centrifugal* - corresponds feelings of attraction (or aversion) that attempts to subject them to a particular member of his entourage, being able to translate operational in a sociometric test by issuing a variable number of choices and rejections of certain members a well-defined group; from other members, the topic will obviously remain neutral, not to prefer or to reject.

2. *centripetal* - the same individual appears as the subject of various feelings that translate the same sociometric test by receiving a variable number of choices and rejections from his comrades, while others remain neutral about him.

Sociometria has two main branches:

- Research sociometry
- Applied sociometry.

The research sociometry networks working groups exploring socio-emotional relationships, using clearly specified criteria. Sometimes called the network exploration, research sociometry is preoccupied with smaller populations relational models (individual and small group) and large (organizations).

The applied sociometry using a number of methods to help individuals and groups in reviewing, expanding and developing psychosocial relations. Both areas of sociometry exists to produce, through their application, greater spontaneity and creativity of individuals and groups.

The method steps :

- sociometric test;

- sociometric matrix;
- sociometric indices;
- sociogram (plotting relations);
- presentation to the group / individual results .

Sociometric test - the main tool and starting point for the knowledge of different aspects of the process of interaction that manifests collectively . It consists in asking questions through which each participant is asked to express their sympathies and antipathies toward others of his colleagues. Very important it is that questions have carefully chosen based on criteria that are consistent with the interests , concerns and aspirations of all group members , but also with research interests. It is appropriate to give participants sufficient grounds to answer as honestly.

Sociometric test application stages:

- a) *members receive group motivation, explains the purpose of the research are:*
- Each will know better place in group
 - The distribution of certain tasks will take into account the preferences and interpersonal
 - Will take into account the socio-preferential relations and the formal structure of the group
- b) *gives confidence in the confidentiality of subjects' responses to questions;*
- c) *distribute forms with questions group members to be completed and are clearly explained how to fill;*
- d) *specifies the characteristics of the situation:*
- Group in which to make choices and rejections;
 - Meaning each question;
 - Limiting to a certain number of responses recommended 3 or 5 answers depending on group size;
 - Explains how that can meet both meets his preferences, but not exceeding the maximum number indicated;
 - Stated that the order is an order value preferences, the number one being the most preferred and the following in descending order;
 - Does not impose a time limit for completion.
- e) *gather responses.*

Sociometric test example :

Name	Date of Birth
_____	____ / ____ / _____

1. What are the three colleagues in this group to which you most like to sit at work ?
a. _____ b. _____ c. _____
2. What are the three colleagues in this group that you like the most you should consult a service issue ?
a. _____ b. _____ c. _____
3. What are the three colleagues in this group that you believe would ensure efficient management of the project team X ?
a. _____ b. _____ c. _____
4. What are the three colleagues in this group , whom they liked least ?
a. _____ b. _____ c. _____

Sociometric matrix - is more than a technical instrument of knowledge. Facilitate discovery and ordering of raw data that we offer the test and provides the necessary conditions for handling and processing .

Exemple of sociometric matrix													
Nr . the elect (ID) Sex and the no. those who choose (ID)		1	2	3	4	5	6	7	8	9	10	11	12
M	1	■											
M	2		■										
F	3			■									
M	4				■								
F	5					■							
F	6						■						
M	7							■					
F	8								■				
F	9									■			
F	10										■		
M	11											■	
M	12												■
Total +													
Total -													

Sociometric clues:

a) *index sociometric status* - shows the position of one person in the group and is calculated as follows :

$$I = (n+) / (N- 1) \quad (1)$$

where n = the number of the person received positive election

N = the number of group members

b) *expansiveness sociometric index* - enables the quantitative determination of individual orientation towards group members by taking into account of the expansiveness both positive and negative to the expansiveness :

$$I = (n+) / (N- 1) + (n-) / (N- 1) \quad (2)$$

where (n +) = number of items issued

(N) = number of rejections issued

N = the number of group members

* this index measures the degree of integration of the individual group : the value is bigger individual is better integrated into the group.

c) *rational sensitivity index* - expresses the individual's ability to assess their own position in the group ; expresses relations sociometric perception accuracy on himself .

$$I = Aa / Ap \tag{3}$$

where Aa = number expected to be elected

Ap = number of elections received.

Sociogram - presented in graphical form interpersonal relationships within the team. Highlights, graphic, not only the place of each member of the group, but also various types of interpersonal networks .

There are two categories of sociograms :

- *Individual* - is an extract from sociogram collective and shows the situation of a group member as it is clear of all the relationships with colleagues .

- *Collective* - the opportunity to find preference structure that is established within the team , saying who relate in terms of affinities .

Sociogram example[3]:

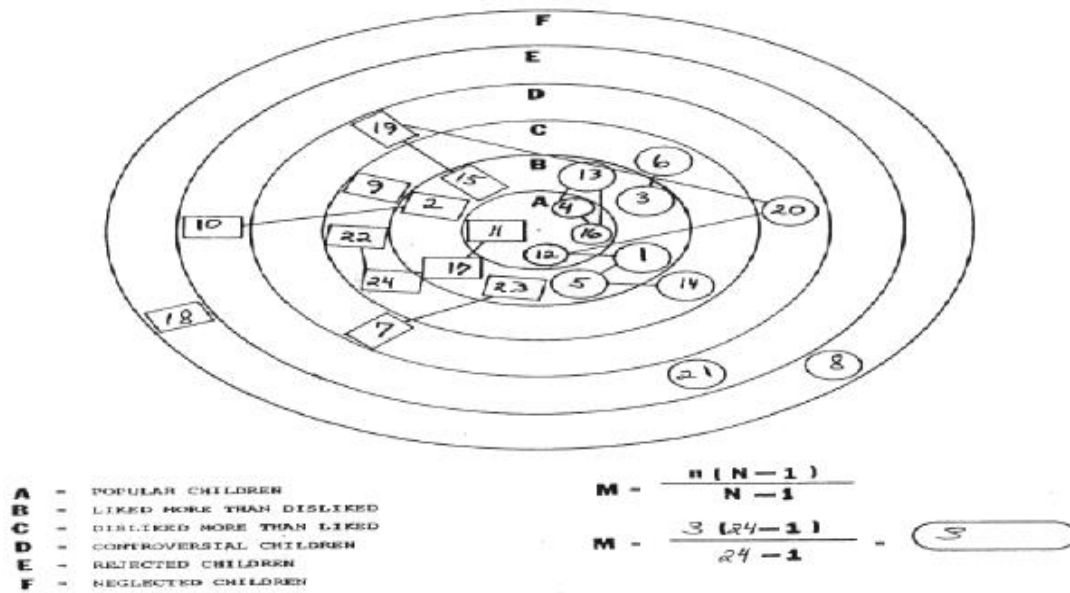


FIGURE 4

Sociogram presentation can be made:

- *in front of the group* (pointing the general aspects)

- *individual* (pointing out particular aspects of the person).

It is recommended to bring out the positive side of the conclusions so as to improve the psychosocial climate to warm relations between colleagues.

It requires each colleague awareness on the role, status and its position in the group realistically and advising them to mitigate conflicts or negative attitudes.

4. Conclusions

The sociometry is based on the fact that the choices people make in interpersonal relations.

Wherever people gather, they make choices: to sit or stand; friendly and with whom, it is a central element of the group, who is rejected, who is isolated, etc.

As says Moreno: "Elections are fundamental facts in all human relations in the ongoing election of the people and the choices of things. It is irrelevant whether the motives are known or not is irrelevant whether elections are inarticulate or very expressive if rational or irrational. they do not require any special justification, as long as they are spontaneous and sincere. they are primordial existential facts. "

Sociometry purpose is to facilitate the effectiveness of the task group and participant satisfaction by developing reciprocity between people and greater authenticity in relationships. The sociometry allows us to intervene in organizational systems, and to identify relationships that require intervention to liberate creativity, leadership and innovation in informal networks, providing greater satisfaction and better outcomes group members in activity.

REFERENCES

- [1]. Marius Stan, <http://jurnalspiritual.eu/relatiile-interumane-si-succesul/>
- [2]. Moreno, Jacob L. 1951. *Sociometry, Experimental Method, and the Science of Society*. Ambler, PA: Beacon House.
- [3]. *** *Introduction to sociometry*

BIBLIOGRAPHY

- Hollander, Carl E., *An Introduction to Sociogram Construction*. Denver, Colorado: Snow Lion Press, Inc. Available at the Colorado Psychodrama Center, 350 South Garfield, Denver CO, 303-322-8000, 1978
- Moreno, Jacob L., *Sociometry, Experimental Method, and the Science of Society*. Ambler, PA: Beacon House, 1951
- Moreno, Jacob L., *Sociometry: A Journal of Interpersonal Relations and Experimental Design* 18, 1953
- Parlebas, P., *Sociometrie et reseau de communication*, PUF., Paris, 1985
- Stan, M., <http://jurnalspiritual.eu/relatiile-interumane-si-succesul/>
- ****Sociometry in the classroom*
- ****Introduction to sociometry*