

# Key to Sociometric Classification

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## *Sociogram 5.5*

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## 2 Introduction

Sociometry is increasingly used in the present age as we try to learn more about human beings. This is especially important in communities such as primary and secondary school classes. It is also an indispensable tool for coaches leading sports teams, as reflected in a number of extensive first-degree theses at the Faculty of Sports in Ljubljana.

Sociometry can be used to measure the social characteristics of a team and cohesion between individuals, to determine how popular they are in the group, to what degree the group appreciates their opinion and socializes with them or not. In short, sociometry is a "method for measuring social relations within a group".

## 3 Sociometric index for individuals

Every individual influences the group with their conduct and characteristics, shaping its overall image. To assess this, sociometry has developed the concept of an individual's sociometric status:

$$SSn = 1 + \frac{\Sigma \text{choices} - M \text{choices}}{N - 1}$$

M – (average) number of choices (choices that were available to an individual)

N – number of test participants

In our case M is 3, since everyone can nominate 3 group members, and the sum of choices is shown in the Survey tab at the bottom of the window.

Sociometric indexes for an individual can be viewed in the Sociometric Classification tab according to the selected two-dimensional sociometric classification group.

### 3.1 Approximate limits for groups of 20-30 individuals

For smaller groups, the indicators are slightly lower.

$SS < 0.90$	low sociometric status
$0.90 \leq SS \leq 1.19$	medium sociometric status
$1.19 < SS$	high sociometric status

## 4 Cohesion index for the surveyed group

The cohesion index gives a rough idea of how relevant the limits are in other classifications. The more cohesive the group, the higher its index, which also makes the results much more representative.

$$Ic = \frac{\Sigma \Sigma \text{mutual choices} / 2}{\Sigma_{max} \text{mutual choices}}$$

$$\Sigma_{max} \text{ mutual choices} = \frac{M\text{choices} * N}{2}$$

#### 4.1 Approximate limits for groups of 20-30 individuals

$I_c < 0.40$	weak cohesion
$0.40 \leq I_c \leq 0.60$	medium cohesion
$0.60 < I_c$	high cohesion

For smaller groups, the indicators are slightly lower.

### 5 Group integration index

The group integration index measures how many individuals in the sociogram received no nominations. The greater the number of isolated persons in a group, the lower the index.

$$G_i = \frac{1}{\text{number of isolated persons in the group}}$$

### 6 Two-dimensional sociometric classification

One-dimensional classifications normally use a single type of choice (positive or negative) to classify the respondents into more or less popular peers.

On the other hand, a two-dimensional sociometric classification system is a method combining a positive and negative criterion. It allows a distinction to be made between respondents based on two dimensions:

- social preference – this is the degree of social appeal
- social impact – this is the degree of social visibility

Based on these two dimensions, respondents are classified into five groups:

- popular – the greatest number of + nominations
- rejected – the smallest number of – nominations
- neglected – the smallest number of + and – nominations
- controversial – the greatest number of + and – nominations
- average – the mean

In Sociogram, a graphic representation can be viewed in the Sociometric Classification tab.

The z values below stand for standardized choices.

#### 6.1 Social preference

$$\text{social preference} = z_p - z_n$$

## 6.2 Social impact

$$\text{social impact} = z_p + z_n$$

## 6.3 The Coie & Dodge classification system

Criteria for classifying students into sociometric groups according to Coie and Dodge (1988).

Sociometric group	Social preference	Social impact
Popular	$> 1.0$	$z_p > 0 \wedge z_n < 0$
Rejected	$< 1.0$	$z_p > 0 \wedge z_n < 0$
Neglected	$z_p < 0 \wedge z_n < 0$	$< -1.0$
Controversial	$z_p > 0 \wedge z_n > 0$	$> 1.0$
Average	$1.0 \geq z_p - z_n \geq -1.0$	$1.0 \geq z_p + z_n \geq -1.0$

## 7 Sources and literature

- *Sociometrična preizkušnja*, Dr Tanja Kajtna, BSc Psychology.
- Petrović, K. and Doupona, M. (1996). *Sociologija športa*. Ljubljana: Fakulteta za šport
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- *Multiple sources of data on social behavior and social status in the school: A cross-age comparison* (1988). Coie J. D. and Dodge, K. A.