

 $IC \cdot KZ \cdot BT \cdot CL \cdot BL \cdot AI \cdot II \cdot REJ$

This report is designed as a support tool to facilitate decision-making and does not replace the professional judgment of industry experts. Interpretations drawn from the report should be integrated with other information related to the specific evaluation context.

 $\text{IM} \cdot \text{II}$

20

90

In alphabetical order: AI Affiliation Index AMB Ambitendent APP Appreciated BT Betweenness CL Closeness CON Controversial DIS Disliked HU
Hub Centrality IC In-Degree Centrality II Influence Index IM Impact ISO Isolated KZ Katz Centrality MAR Marginal POP Popular PR PageRank
Centrality REJ Rejected

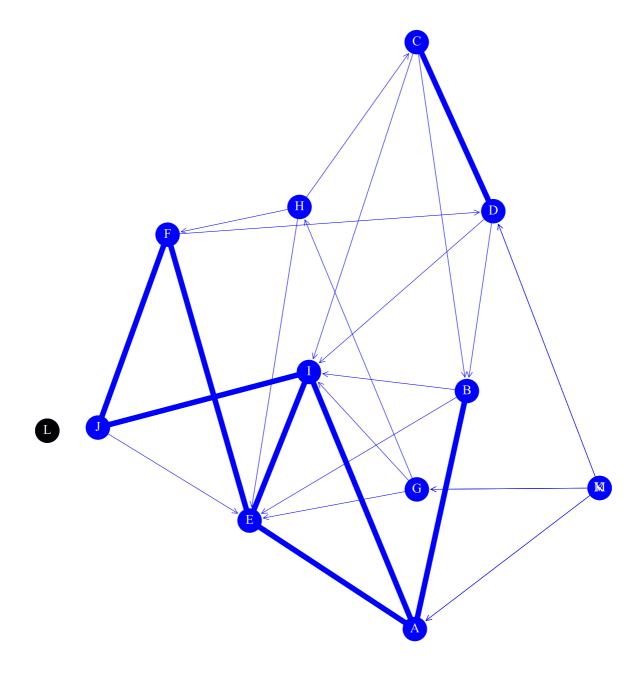


THE FELLOWSHIP OF THE RING | GROUP 1

SNA | NETWORK GRAPH

a. Who would you choose as your adventure companion?

NN 13, NE 36, RE 8, ND 23%, NC 27%, NT 43%, NR 44%



In alphabetical order: NC Centralization NE Number of Edges NN Number of Nodes NR Reciprocity NT Transitivity NX Density RE Number of Mutual Edges



THE FELLOWSHIP OF THE RING | GROUP 1

SNA | RAW SCORES

a. Who would you choose as your adventure companion?

ID	CHOICES	IC	KZ	PR	ВТ	CL	HU	ND
A	B, E, I	0.42	0.34	0.16	0.06	0.59	0.11	
В	A, E, I	0.25	0.28	0.08	0.02	0.48	0.12	
С	B, D, I	0.17	0.24	0.03	0.02	0.36	0.08	
D	B, C, I	0.33	0.28	0.06	0.09	0.46	0.07	
Е	A, F, I	0.58	0.39	0.20	0.12	0.67	0.09	
F	D, E, J	0.25	0.28	0.10	0.10	0.44	0.07	
G	E, H, I	0.17	0.23	0.02	0.04	0.17	0.10	
Н	C, E, F	0.08	0.22	0.02	0.02	0.15	0.07	
I	A, E, J	0.58	0.40	0.20	0.09	0.67	0.08	
J	E, F, I	0.17	0.26	0.10	0.02	0.46	0.11	
K	A, D, G	0.00	0.19	0.01	0.00	0.00	0.05	←
L	-	0.00	0.00	0.00	0.00	0.00	0.00	\rightleftharpoons
M	A, D, G	0.00	0.19	0.01	0.00	0.00	0.05	←

In alphabetical order: BT Betweenness CL Closeness HU Hub Centrality IC In-Degree Centrality KZ Katz Centrality ND No In-Degree (\leftarrow) No Out-Degree (\rightarrow) No In or Out-Degree (\rightleftharpoons) PR PageRank Centrality



THE FELLOWSHIP OF THE RING | GROUP 1

SNA | RANK SCORES

a. Who would you choose as your adventure companion?

ID	CHOICES	IC	KZ	PR	ВТ	CL	HU	ND
A	B, E, I	2	3	3	5	2	3	
В	A, E, I	4	6	6	8	3	1	
С	B, D, I	5	8	8	8	6	7	
D	B, C, I	3	4	7	4	4	8	
Е	A, F, I	1	2	1	1	1	5	
F	D, E, J	4	5	4	2	5	10	
G	E, H, I	5	9	9	6	7	4	
Н	C, E, F	6	10	10	7	8	9	
I	A, E, J	1	1	2	3	1	6	
J	E, F, I	5	7	5	9	4	2	
K	A, D, G	7	11	11	10	9	11	←
L	-	7	12	12	10	9	12	\rightleftharpoons
M	A, D, G	7	11	11	10	9	11	←

In alphabetical order: BT Betweenness CL Closeness HU Hub Centrality IC In-Degree Centrality KZ Katz Centrality ND No In-Degree (\leftarrow) No Out-Degree (\rightarrow) No In or Out-Degree (\rightleftarrows) PR PageRank Centrality



THE FELLOWSHIP OF THE RING | GROUP 1

SNA | NODES ORDERED BY RANK

a. Who would you choose as your adventure companion?

IC	RK	KZ	RK	PR	RK	ВТ	RK	CL	RK	HU	RK
E	1	I	1	E	1	E	1	E	1	В	1
I	1	Е	2	I	2	F	2	I	1	J	2
A	2	A	3	A	3	I	3	A	2	A	3
D	3	D	4	F	4	D	4	В	3	G	4
В	4	F	5	J	5	A	5	D	4	E	5
F	4	В	6	В	6	G	6	J	4	I	6
C	5	J	7	D	7	Н	7	F	5	C	7
G	5	C	8	C	8	В	8	C	6	D	8
J	5	G	9	G	9	C	8	G	7	Н	9
Н	6	Н	10	Н	10	J	9	Н	8	F	10
K	7	K	11	K	11	K	10	K	9	K	11
L	7	M	11	M	11	L	10	L	9	M	11
M	7	L	12	L	12	M	10	M	9	L	12

In alphabetical order: BT Betweenness CL Closeness HU Hub Centrality IC In-Degree Centrality KZ Katz Centrality RK Rank PR PageRank Centrality



THE FELLOWSHIP OF THE RING | GROUP 1

SNA | EDGES GROUPED BY TYPE

a. Who would you choose as your adventure companion?

Non reciprocal edges

 $X \rightarrow Y$ in network $A \cdot not Y \rightarrow X$ in network A

 $\left(\mathbf{K} \cdot \mathbf{D} \right) \left(\mathbf{K} \cdot \mathbf{G} \right) \left(\mathbf{M} \cdot \mathbf{A} \right) \left(\mathbf{M} \cdot \mathbf{D} \right) \left(\mathbf{M} \cdot \mathbf{G} \right)$

Reciprocal edges

 $X \to Y$ in network $A \cdot Y \to X$ in network A

Half symmetrical edges

 $X \to Y$ in network $A \cdot X \to Y$ in network B

No edge of this type

Reversed half symmetrical edges

 $X \to Y$ in network $A \cdot Y \to X$ in network B

 $(G \cdot H)(H \cdot E)(M \cdot A)(M \cdot D)(M \cdot G)$

Full symmetrical edges

 $X \to Y, Y \to X$ in network $A \cdot X \to Y, Y \to X$ in network B

No edge of this type



THE FELLOWSHIP OF THE RING | GROUP 1

SNA | SUBGRAPHS

a. Who would you choose as your adventure companion?

Cliques

Each node can reach every other node: a) without intermediaries; b) ignoring the direction of connections

 \blacksquare B · C · D · I

 $A \cdot B \cdot E \cdot I$

 $E \cdot F \cdot H$

 $\left(\begin{array}{c} \mathbf{E} \cdot \mathbf{F} \cdot \mathbf{J} \end{array}\right)$

 $E \cdot G \cdot H$

 $E\cdot G\cdot I$

 $E \cdot I \cdot J$

Strongly Connected Groups

Each node can reach every other node: a) with or without intermediaries; b) following the direction of connections



Weakly Connected Groups

Each node can reach every other node: a) with or without intermediaries; b) ignoring the direction of connections



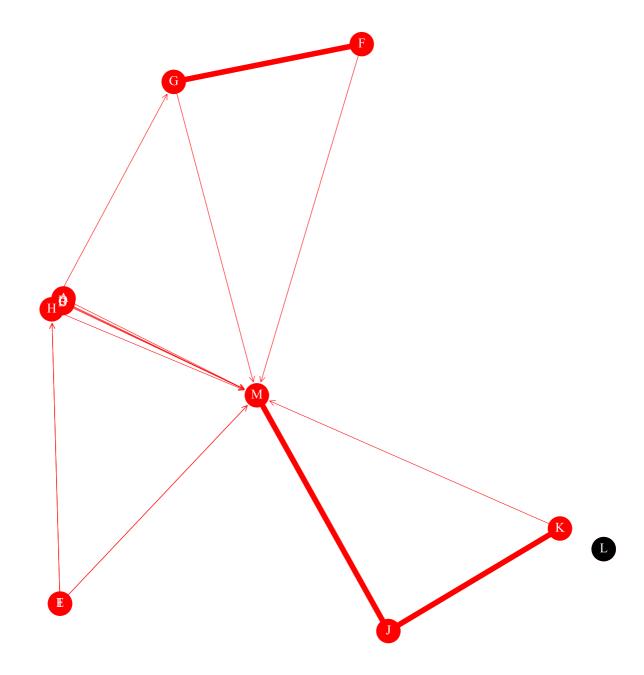


THE FELLOWSHIP OF THE RING | GROUP 1

SNA | NETWORK GRAPH

b. Who wouldn't you choose as your adventure companion?

NN 13, NE 19, RE 3, ND 12%, NC 84%, NT 57%, NR 32%



In alphabetical order: NC Centralization NE Number of Edges NN Number of Nodes NR Reciprocity NT Transitivity NX Density RE Number of Mutual Edges



THE FELLOWSHIP OF THE RING | GROUP 1

SNA | RAW SCORES

b. Who wouldn't you choose as your adventure companion?

ID	CHOICES	IC	KZ	PR	ВТ	CL	HU	ND
A	M	0.00	0.23	0.01	0.00	0.00	0.08	←
В	M	0.00	0.23	0.01	0.00	0.00	0.08	←
С	M	0.00	0.23	0.01	0.00	0.00	0.08	←
D	M	0.00	0.23	0.01	0.00	0.00	0.08	←
E	H, M	0.00	0.23	0.01	0.00	0.00	0.10	←
F	G, M	0.08	0.26	0.03	0.00	0.15	0.10	
G	F, M	0.17	0.28	0.03	0.02	0.22	0.09	
Н	G, M	0.17	0.27	0.02	0.03	0.17	0.10	
I	Н, М	0.00	0.23	0.01	0.00	0.00	0.10	←
J	K, M	0.17	0.30	0.35	0.08	0.50	0.09	
K	J, M	0.08	0.26	0.16	0.00	0.34	0.09	
L	-	0.00	0.00	0.00	0.00	0.00	0.00	\rightleftharpoons
M	J	0.92	0.50	0.32	0.14	0.92	0.01	

In alphabetical order: BT Betweenness CL Closeness HU Hub Centrality IC In-Degree Centrality KZ Katz Centrality ND No In-Degree (\leftarrow) No Out-Degree (\rightarrow) No In or Out-Degree (\rightleftharpoons) PR PageRank Centrality



THE FELLOWSHIP OF THE RING | GROUP 1

SNA | RANK SCORES

b. Who wouldn't you choose as your adventure companion?

ID	CHOICES	IC	KZ	PR	ВТ	CL	HU	ND
A	M	4	7	7	5	7	5	←
В	M	4	7	7	5	7	5	←
С	M	4	7	7	5	7	5	←
D	M	4	7	7	5	7	5	←
Е	Н, М	4	7	7	5	7	2	←
F	G, M	3	6	5	5	6	1	
G	F, M	2	3	4	4	4	4	
Н	G, M	2	4	6	3	5	1	
I	H, M	4	7	7	5	7	2	←
J	K, M	2	2	1	2	2	4	
K	J, M	3	5	3	5	3	3	
L	-	4	8	8	5	7	7	\rightleftharpoons
M	J	1	1	2	1	1	6	

In alphabetical order: BT Betweenness CL Closeness HU Hub Centrality IC In-Degree Centrality KZ Katz Centrality ND No In-Degree (\leftarrow) No Out-Degree (\rightarrow) No In or Out-Degree (\rightleftarrows) PR PageRank Centrality



THE FELLOWSHIP OF THE RING | GROUP 1

SNA | NODES ORDERED BY RANK

b. Who wouldn't you choose as your adventure companion?

IC	RK	KZ	RK	PR	RK	ВТ	RK	CL	RK	HU	RK
M	1	M	1	J	1	M	1	M	1	F	1
G	2	J	2	M	2	J	2	J	2	Н	1
Н	2	G	3	K	3	Н	3	K	3	E	2
J	2	Н	4	G	4	G	4	G	4	I	2
F	3	K	5	F	5	A	5	Н	5	K	3
K	3	F	6	Н	6	В	5	F	6	G	4
A	4	A	7	A	7	C	5	A	7	J	4
В	4	В	7	В	7	D	5	В	7	A	5
C	4	C	7	C	7	E	5	C	7	В	5
D	4	D	7	D	7	F	5	D	7	C	5
E	4	E	7	E	7	I	5	Е	7	D	5
I	4	I	7	I	7	K	5	I	7	M	6
L	4	L	8	L	8	L	5	L	7	L	7

In alphabetical order: BT Betweenness CL Closeness HU Hub Centrality IC In-Degree Centrality KZ Katz Centrality RK Rank PR PageRank Centrality



THE FELLOWSHIP OF THE RING | GROUP 1

SNA | EDGES GROUPED BY TYPE

b. Who wouldn't you choose as your adventure companion?

Non reciprocal edges

 $X \to Y$ in network $B \, \cdot \, not \, Y \to X$ in network B

Reciprocal edges

 $X \to Y$ in network $B : Y \to X$ in network B

 $(F \cdot G) (J \cdot K) (J \cdot M)$

Half symmetrical edges

 $X \to Y$ in network $B \, \cdot \, X \to Y$ in network A

No edge of this type

Reversed half symmetrical edges

 $X \rightarrow Y$ in network $B \cdot Y \rightarrow X$ in network A

Full symmetrical edges

 $X \to Y, Y \to X$ in network $B \cdot X \to Y, Y \to X$ in network A

No edge of this type



THE FELLOWSHIP OF THE RING | GROUP 1

SNA | SUBGRAPHS

b. Who wouldn't you choose as your adventure companion?

Cliques

Each node can reach every other node: a) without intermediaries; b) ignoring the direction of connections





 $H \cdot I \cdot M$

 $G \cdot H \cdot M$

 $E \cdot H \cdot M$

Strongly Connected Groups

Each node can reach every other node: a) with or without intermediaries; b) following the direction of connections



Weakly Connected Groups

Each node can reach every other node: a) with or without intermediaries; b) ignoring the direction of connections





THE FELLOWSHIP OF THE RING | GROUP 1

SNA | RANK DIFFERENCE A-B

NO	IC A-B	NO	KZ A-B	NO	PR A-B	NO	BT A-B	NO	CL A-B	NO	HU A-B
E	-3	I	-6	E	-6	E	-4	E	-6	В	-4
I	-3	E	-5	I	-5	F	-3	I	-6	J	-2
A	-2	A	-4	A	-4	I	-2	A	-5	A	-2
D	-1	D	-3	F	-1	D	-1	В	-4	G	0
В	0	F	-1	J	4	A	0	D	-3	E	3
F	1	В	-1	В	-1	G	2	J	2	I	4
C	1	J	5	D	0	H	4	F	-1	C	2
G	3	C	1	C	1	В	3	C	-1	D	3
J	3	G	6	G	5	C	3	G	3	Н	8
Н	4	Н	6	Н	4	J	7	Н	3	F	9
K	4	K	6	K	8	K	5	K	6	K	8
L	3	M	10	M	9	L	5	L	2	M	5
M	6	L	4	L	4	M	9	M	8	L	5

In alphabetical order: BT Betweenness CL Closeness HU Hub Centrality IC In-Degree Centrality KZ Katz Centrality NO Node PR PageRank Centrality



THE FELLOWSHIP OF THE RING | GROUP 1

SNA | DESCRIPTIVE

a. Who would you choose as your adventure companion?

NN 13, NE 36, RE 8, ND 23%, NC 27%, NT 43%, NR 44%

ID	Count	Min	Max	Median	Mean	SD	CV	GN	SK	KT	P25	P75
In-Degree Centrality	13.00	0.00	0.58	0.17	0.23	0.20	0.87	0.47	0.65	-0.49	0.08	0.33
PageRank Centrality	13.00	0.00	0.20	0.06	0.08	0.07	0.93	0.49	0.78	-0.70	0.02	0.10
Katz Centrality	13.00	0.00	0.40	0.26	0.25	0.10	0.40	0.20	-1.03	2.70	0.22	0.28
Betweenness Centrality	13.00	0.00	0.12	0.02	0.04	0.04	0.94	0.50	0.57	-1.27	0.02	0.09
Closeness Centrality	13.00	0.00	0.67	0.44	0.34	0.25	0.73	0.40	-0.24	-1.42	0.15	0.48
Hub Centrality	13.00	0.00	0.12	0.08	0.08	0.03	0.40	0.21	-1.20	2.16	0.07	0.10

In alphabetical order: COUNT Frequency CV Coefficient of Variation GN Gini Coefficient KT Kurtosis MAX Maximum Value MEAN Mean MEDIAN Median MIN Minimum Value NC Centralization NE Number of Edges NN Number of Nodes NR Reciprocity NT Transitivity P25 25th Percentile P75 75th Percentile RE Number of Mutual Edges SD Standard Deviation SK Skewness

b. Who wouldn't you choose as your adventure companion?

NN 13, NE 19, RE 3, ND 12%, NC 84%, NT 57%, NR 32%

ID	Count	Min	Max	Median	Mean	SD	CV	GN	SK	KT	P25	P75
In-Degree Centrality	13.00	0.00	0.92	0.00	0.12	0.25	2.05	0.75	3.12	10.42	0.00	0.17
PageRank Centrality	13.00	0.00	0.35	0.01	0.08	0.12	1.61	0.68	1.80	1.89	0.01	0.03
Katz Centrality	13.00	0.00	0.50	0.23	0.25	0.11	0.42	0.18	0.06	4.94	0.23	0.27
Betweenness Centrality	13.00	0.00	0.14	0.00	0.02	0.04	2.02	0.80	2.33	5.26	0.00	0.02
Closeness Centrality	13.00	0.00	0.92	0.00	0.18	0.27	1.55	0.71	1.94	3.87	0.00	0.22
Hub Centrality	13.00	0.00	0.10	0.09	0.08	0.03	0.43	0.18	-2.00	2.81	0.08	0.10

In alphabetical order: COUNT Frequency CV Coefficient of Variation GN Gini Coefficient KT Kurtosis MAX Maximum Value MEAN Mean MEDIAN Median MIN Minimum Value NC Centralization NE Number of Edges NN Number of Nodes NR Reciprocity NT Transitivity P25 25th Percentile P75 75th Percentile RE Number of Mutual Edges SD Standard Deviation SK Skewness



THE FELLOWSHIP OF THE RING | GROUP 1

SOCIOGRAM | RAW SCORES

ID	RP	RR	GP	GR	MP	MR	BL	OR	IM	AI	II	ST
A	5	0	3	1	3	0	5	2	5	7	8	appreciated
В	3	0	3	1	1	0	3	2	3	5	4	appreciated
C	2	0	3	1	1	0	2	2	2	4	3	marginal
D	4	0	3	1	1	0	4	2	4	6	5	appreciated
Е	7	0	3	2	3	0	7	1	7	8	10	popular
F	3	1	3	2	2	1	2	1	4	3	5	appreciated
G	2	2	3	2	0	1	0	1	4	1	2	ambitendent
Н	1	2	3	2	0	0	-1	1	3	0	1	disliked
I	7	0	3	2	3	0	7	1	7	8	10	popular
J	2	2	3	2	2	2	0	1	4	1	4	ambitendent
K	0	1	3	2	0	1	-1	1	1	0	0	marginal
L	0	0	0	0	0	0	0	0	0	0	0	marginal
M	0	11	3	1	0	1	-11	2	11	-9	0	rejected

In alphabetical order: AI Affiliation Index BL Balance GP Given Preferences GR Given Rejections II Influence Index IM Impact MP Mutual Preferences MR Mutual Rejections OR Orientation RP Received Preferences RR Received Rejections ST Sociometric Status



THE FELLOWSHIP OF THE RING | GROUP 1

SOCIOGRAM | NODES ORDERED BY RANK

BL	RK	IM	RK	AI	RK	п	RK	ST	RK
Е	1.0	M	1.0	E	1.0	Е	1.0	E	1
I	1.0	E	2.0	I	1.0	I	1.0	I	1
A	2.0	I	2.0	A	2.0	A	2.0	A	2
D	3.0	A	3.0	D	3.0	D	3.0	В	2
В	4.0	D	4.0	В	4.0	F	3.0	D	2
C	5.0	F	4.0	C	5.0	В	4.0	F	2
F	5.0	G	4.0	F	6.0	J	4.0	C	3
G	6.0	J	4.0	G	7.0	C	5.0	K	3
J	6.0	В	5.0	J	7.0	G	6.0	L	3
L	6.0	Н	5.0	Н	8.0	Н	7.0	G	6
Н	7.0	C	6.0	K	8.0	K	8.0	J	6
K	7.0	K	7.0	L	8.0	L	8.0	Н	8
M	8.0	L	8.0	M	9.0	M	8.0	M	9

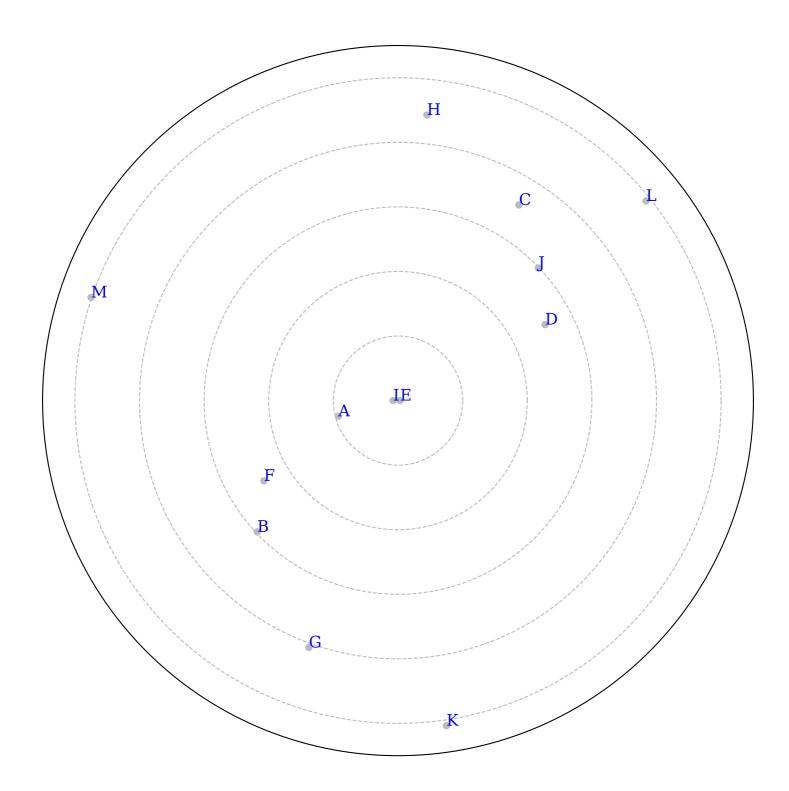
In alphabetical order: AI Affiliation Index BL Balance II Influence Index IM Impact ST Sociometric Status



THE FELLOWSHIP OF THE RING | GROUP 1

SOCIOGRAM | GRAPH

Influence index

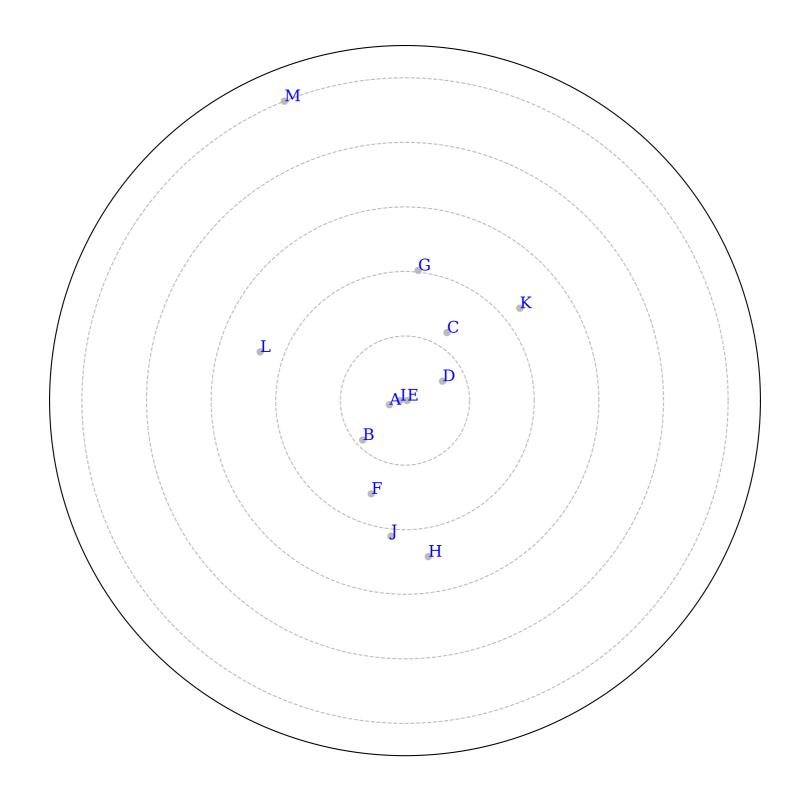




THE FELLOWSHIP OF THE RING | GROUP 1

SOCIOGRAM | GRAPH

Affiliation index





THE FELLOWSHIP OF THE RING | GROUP 1

SOCIOGRAM | DESCRIPTIVES

Type I Cohesion Index : 44.44% Type II Cohesion Index : 0.62 Type I Conflict Index : 31.58% Type II Conflict Index : 0.23

ID	Count	Min	Max	Median	Mean	SD	CV	GN	SK	KT	P25	P75
Received Preferences	13.00	0.00	7.00	2.00	2.77	2.42	0.87	0.47	0.65	-0.49	1.00	4.00
Received Rejections	13.00	0.00	11.00	0.00	1.46	2.99	2.05	0.75	3.12	10.42	0.00	2.00
Given Preferences	13.00	0.00	3.00	3.00	2.77	0.83	0.30	0.08	-3.61	13.00	3.00	3.00
Given Rejections	13.00	0.00	2.00	2.00	1.46	0.66	0.45	0.22	-0.86	-0.02	1.00	2.00
Mutual Preferences	13.00	0.00	3.00	1.00	1.23	1.24	1.00	0.53	0.43	-1.46	0.00	2.00
Mutual Rejections	13.00	0.00	2.00	0.00	0.46	0.66	1.43	0.67	1.19	0.65	0.00	1.00
Balance	13.00	-11.00	7.00	2.00	1.31	4.63	3.54	0.18	-1.44	3.71	0.00	4.00
Orientation	13.00	0.00	2.00	1.00	1.31	0.63	0.48	0.24	-0.31	-0.32	1.00	2.00
Impact	13.00	0.00	11.00	4.00	4.23	2.86	0.68	0.35	0.96	1.57	3.00	5.00
Affiliation Index	13.00	-9.00	8.00	3.00	2.62	4.63	1.77	0.20	-1.17	2.25	0.00	6.00
Influence Index	13.00	0.00	10.00	4.00	4.00	3.56	0.89	0.48	0.59	-0.73	1.00	5.00

In alphabetical order: COUNT Frequency CV Coefficient of Variation GN Gini Coefficient KT Kurtosis MAX Maximum Value MEAN Mean MEDIAN Median MIN Minimum Value P25 25th Percentile P75 75th Percentile SD Standard Deviation SK Skewness