

DEMO C	GROUP 4			RELEVANT NODES
a. Who wo	ould you like in your ideal work group?			
B	$IC \cdot KZ \cdot PR \cdot BT \cdot CL \cdot BL \cdot IM \cdot AI \cdot II \cdot APP$	100 F	HU · APP	20
b. Who we	ould you like in your ideal work group?			
G	$IC \cdot KZ \cdot PR \cdot CL \cdot BL \cdot AI \cdot DIS$	70 A	HU · IM · II	30
E	BT · DIS	20	IM · II	20

AI Affiliation index APP Appreciated BT Betweenness CL Closeness DIS Disliked HU Hub IC In-Degree II Influence index ISO Isolated KZ Katz POP Popular REJ Rejected

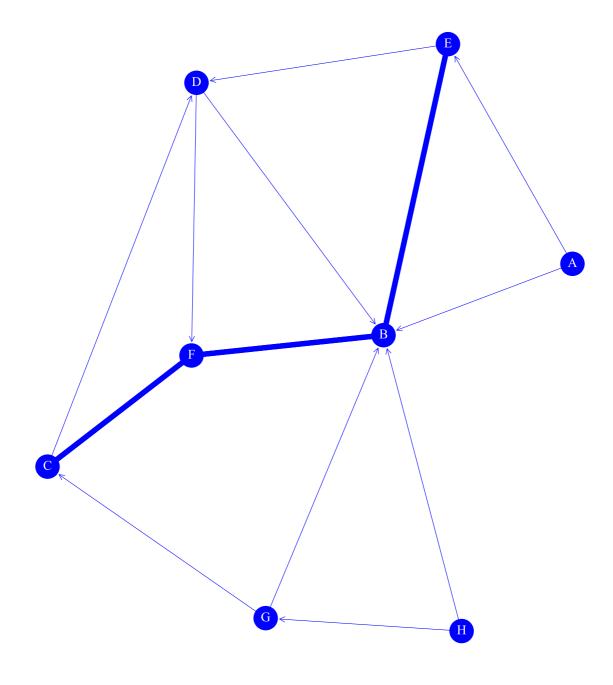
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DEMO | GROUP 4 SNA | NETWORK GRAPH

A. Who would you like in your ideal work group?

NN 8, NE 16, NR 3, ND 29%, NC 52%, NT 44%, NR 38%



NN Nodes NE Links NR Reciprocal Links ND Density NC Centralization NT Transitivity NR Reciprocity

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DEMO | GROUP 4 SNA | RAW SCORES

A. Who would you like in your ideal work group?

ID	CHOICES	IC	KZ	PR	ВТ	CL	HU	ND
A	B, E	0.00	0.28	0.02	0.00	0.00	0.14	
В	E, F	0.86	0.47	0.27	0.24	0.88	0.06	
C	D, F	0.29	0.35	0.14	0.07	0.50	0.06	
D	B, F	0.29	0.35	0.14	0.05	0.54	0.15	
E	B, D	0.29	0.35	0.14	0.06	0.54	0.14	
F	B, C	0.43	0.40	0.25	0.12	0.64	0.15	
G	B, C	0.14	0.31	0.03	0.04	0.14	0.15	
Н	B, G	0.00	0.28	0.02	0.00	0.00	0.13	←



DEMO | GROUP 4 SNA | RANK SCORES

A. Who would you like in your ideal work group?

ID	CHOICES	IC	KZ	PR	ВТ	CL	HU	ND
A	B, E	5	7	7	7	6	3	
В	E, F	1	1	1	1	1	5	
С	D, F	3	5	5	3	4	5	
D	B, F	3	4	4	5	3	2	
E	B, D	3	3	3	4	3	3	
F	B, C	2	2	2	2	2	1	
G	B, C	4	6	6	6	5	1	
Н	B, G	5	7	7	7	6	4	←



DEMO | GROUP 4

SNA | NODES ORDERED BY RANK

A. Who would you like in your ideal work group?

IC	RK	KZ	RK	PR	RK	ВТ	RK	CL	RK	HU	RK
В	1	В	1	В	1	В	1	В	1	F	1
F	2	F	2	F	2	F	2	F	2	G	1
C	3	Е	3	E	3	C	3	D	3	D	2
D	3	D	4	D	4	E	4	E	3	A	3
E	3	C	5	C	5	D	5	C	4	E	3
G	4	G	6	G	6	G	6	G	5	Н	4
A	5	A	7	A	7	A	7	A	6	В	5
Н	5	Н	7	Н	7	Н	7	Н	6	С	5

RK Rank IC In-Degree KZ Katz BT Betweenness CL Closeness HU Hub



DEMO | GROUP 4

SNA | EDGES GROUPED BY TYPE

A. Who would you like in your ideal work group?

Non reciprocal edges

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

Reciprocal edges

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

 $B \cdot E$ $B \cdot F$ $C \cdot F$

Half symmetrical edges

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

 $\left(\mathbf{B} \cdot \mathbf{F} \right)$

Reversed half symmetrical edges

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

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



DEMO | GROUP 4 SNA | SUBGRAPHS

A. Who would you like in your ideal work group?

Cliques

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



 $\left(\mathbf{B} \cdot \mathbf{G} \cdot \mathbf{H} \right)$

 $\left(\mathbf{B} \cdot \mathbf{D} \cdot \mathbf{E} \right)$

 $A \cdot B \cdot E$

 $C \cdot D \cdot F$

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

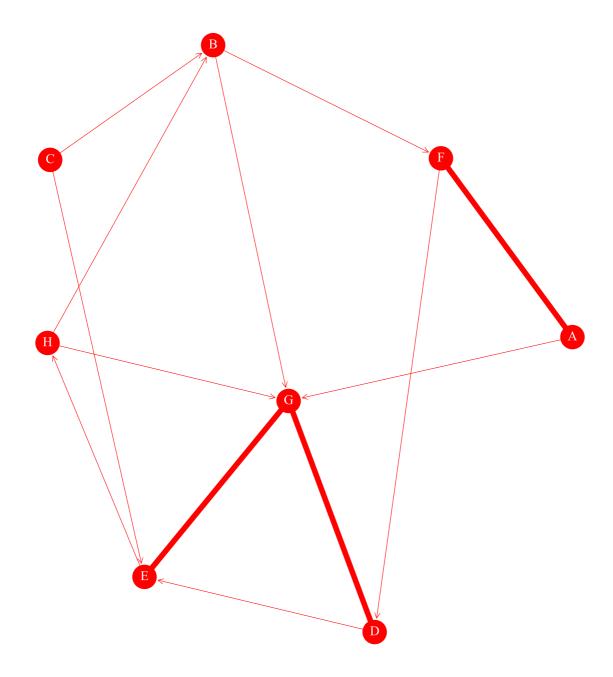




DEMO | GROUP 4 SNA | NETWORK GRAPH

B. Who would you not want in your ideal work group?

NN 8, NE 16, NR 3, ND 29%, NC 33%, NT 31%, NR 38%



NN Nodes NE Links NR Reciprocal Links ND Density NC Centralization NT Transitivity NR Reciprocity

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DEMO | GROUP 4 SNA | RAW SCORES

B. Who would you not want in your ideal work group?

ID	CHOICES	IC	KZ	PR	ВТ	CL	HU	ND
A	F, G	0.14	0.31	0.05	0.01	0.30	0.18	
В	F, G	0.29	0.34	0.07	0.27	0.39	0.18	
С	B, E	0.00	0.28	0.02	0.00	0.00	0.08	←
D	E, G	0.29	0.36	0.17	0.08	0.54	0.17	
E	G, H	0.43	0.39	0.22	0.35	0.64	0.15	
F	A, D	0.29	0.35	0.07	0.17	0.41	0.01	
G	D, E	0.71	0.45	0.28	0.23	0.78	0.06	
Н	B, G	0.14	0.32	0.11	0.26	0.44	0.16	



DEMO | GROUP 4 SNA | RANK SCORES

B. Who would you not want in your ideal work group?

ID	CHOICES	IC	KZ	PR	ВТ	CL	HU	ND
A	F, G	4	7	7	7	7	1	
В	F, G	3	5	5	2	6	1	
C	B, E	5	8	8	8	8	5	←
D	E, G	3	3	3	6	3	2	
E	G, H	2	2	2	1	2	4	
F	A, D	3	4	6	5	5	7	
G	D, E	1	1	1	4	1	6	
Н	B, G	4	6	4	3	4	3	



DEMO | GROUP 4

SNA | NODES ORDERED BY RANK

B. Who would you not want in your ideal work group?

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

RK Rank IC In-Degree KZ Katz BT Betweenness CL Closeness HU Hub



DEMO | GROUP 4

SNA | EDGES GROUPED BY TYPE

B. Who would you not want in your ideal work group?

Non reciprocal edges

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

Reciprocal edges

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

 $(A \cdot F) (D \cdot G) (E \cdot G)$

Half symmetrical edges

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

 $\left(\mathbf{B}\cdot\mathbf{F}\right)$

Reversed half symmetrical edges

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



DEMO | GROUP 4 SNA | SUBGRAPHS

B. Who would you not want in your ideal work group?

Cliques

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



 $D \cdot E \cdot G$

 $B \cdot G \cdot H$

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





DEMO | GROUP 4

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
В	-2	В	-4	В	-4	В	-1	В	-5	F	-6
F	-1	F	-2	F	-4	F	-3	F	-3	G	-5
C	-2	E	1	E	1	C	-5	D	0	D	0
D	0	D	1	D	1	E	3	E	1	A	2
E	1	C	-3	C	-3	D	-1	C	-4	E	-1
G	3	G	5	G	5	G	2	G	4	Н	1
A	1	A	0	A	0	A	0	A	-1	В	4
Н	1	Н	1	Н	3	Н	4	Н	2	C	0

NO Node IC In-Degree KZ Katz BT Betweenness CL Closeness HU Hub



DEMO | GROUP 4 SNA | DESCRIPTIVE

A. Who would you like in your ideal work group?

NN 8, NE 16, NR 3, ND 29%, NC 52%, NT 44%, NR 38%

ID	Count	Min	Max	Median	Mean	SD	CV	GN	SK	KT	P25	P75
In degree Centrality	8.00	0.00	0.86	0.29	0.29	0.28	0.96	0.47	1.28	2.31	0.11	0.32
PageRank Centrality	8.00	0.02	0.27	0.14	0.12	0.10	0.80	0.41	0.33	-1.29	0.02	0.17
Katz Centrality	8.00	0.28	0.47	0.35	0.35	0.07	0.19	0.09	0.95	1.01	0.30	0.36
Betweenness Centrality	8.00	0.00	0.24	0.05	0.07	0.08	1.09	0.52	1.60	2.92	0.03	0.08
Closeness Centrality	8.00	0.00	0.88	0.52	0.40	0.32	0.79	0.41	-0.16	-1.27	0.11	0.56
Hub Centrality	8.00	0.06	0.15	0.14	0.12	0.04	0.31	0.15	-1.27	-0.23	0.11	0.15

NN Nodes NE Links NR Reciprocal Links ND Density NC Centralization NT Transitivity NR Reciprocity Count Frequency Sum Sum Min Minimum Value Max Maximum Value Median Median Mean Mean SD Standard Deviation CV Coefficient of Variation GN Gini Coefficient SK Skewness KT Kurtosis P25 25th Percentile P75 75th Percentile

B. Who would you not want in your ideal work group?

NN 8, NE 16, NR 3, ND 29%, NC 33%, NT 31%, NR 38%

ID	Count	Min	Max	Median	Mean	SD	CV	GN	SK	KT	P25	P75
In degree Centrality	8.00	0.00	0.71	0.29	0.29	0.22	0.76	0.38	0.99	1.66	0.14	0.32
PageRank Centrality	8.00	0.02	0.28	0.09	0.12	0.09	0.74	0.38	0.76	-0.54	0.07	0.18
Katz Centrality	8.00	0.28	0.45	0.34	0.35	0.05	0.15	0.08	0.93	1.31	0.32	0.37
Betweenness Centrality	8.00	0.00	0.35	0.20	0.17	0.13	0.75	0.39	-0.21	-1.38	0.07	0.26
Closeness Centrality	8.00	0.00	0.78	0.42	0.44	0.23	0.53	0.27	-0.57	1.22	0.37	0.56
Hub Centrality	8.00	0.01	0.18	0.16	0.12	0.06	0.52	0.26	-0.90	-0.80	0.08	0.18

NN Nodes NE Links NR Reciprocal Links ND Density NC Centralization NT Transitivity NR Reciprocity Count Frequency Sum Sum Min Minimum Value Max Maximum Value Median Median Mean Mean SD Standard Deviation CV Coefficient of Variation GN Gini Coefficient SK Skewness KT Kurtosis P25 25th Percentile P75 75th Percentile



DEMO | GROUP 4

SOCIOGRAM | RAW SCORES

ID	RP	RR	GP	GR	MP	MR	BL	OR	IM	AI	II	ST
A	0	1	2	2	0	1	-1	0	1	-1	0	marginal
В	6	2	2	2	2	0	4	0	8	4	8	appreciated
C	2	0	2	2	1	0	2	0	2	2	3	appreciated
D	2	2	2	2	0	1	0	0	4	0	2	ambitendent
E	2	3	2	2	1	1	-1	0	5	-1	3	disliked
F	3	2	2	2	2	1	1	0	5	1	5	appreciated
G	1	5	2	2	0	2	-4	0	6	-4	1	disliked
Н	0	1	2	2	0	0	-1	0	1	-1	0	marginal

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



DEMO | GROUP 4

SOCIOGRAM | NODES ORDERED BY RANK

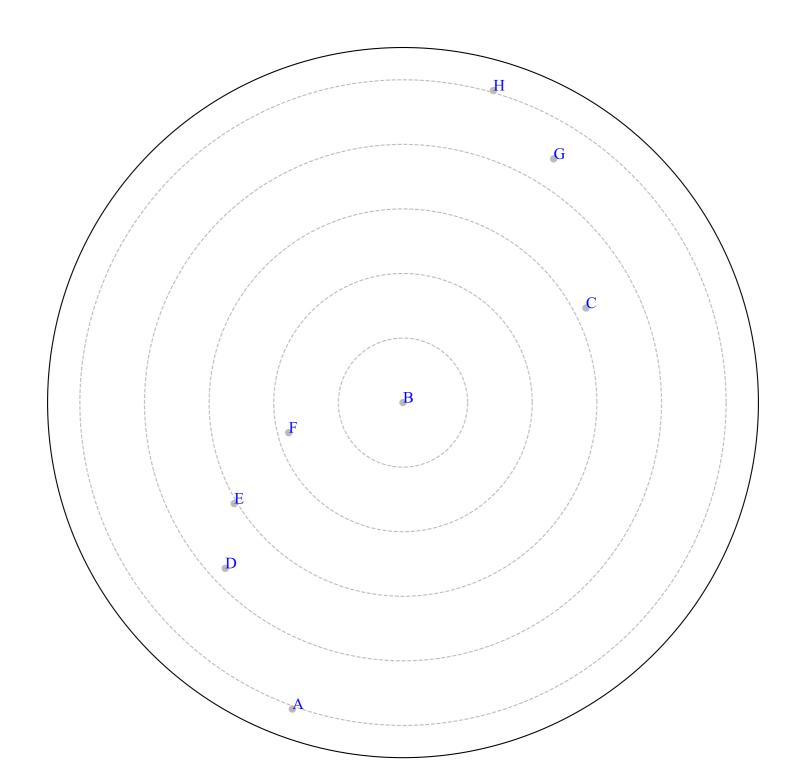
BL	RK	IM	RK	AI	RK	II	RK	ST	RK
В	1.0	В	1.0	В	1.0	В	1.0	В	2
C	2.0	G	2.0	C	2.0	F	2.0	C	2
F	3.0	E	3.0	F	3.0	C	3.0	F	2
D	4.0	F	3.0	D	4.0	Е	3.0	A	3
A	5.0	D	4.0	A	5.0	D	4.0	Н	3
E	5.0	C	5.0	E	5.0	G	5.0	D	4
Н	5.0	A	6.0	Н	5.0	A	6.0	E	6
G	6.0	Н	6.0	G	6.0	Н	6.0	G	6

RP Received Preferences RR Received Rejections GP Given Preferences GR Given Rejections BL Balance IM Impact AI Affiliation Index II Influence Index



DEMO | GROUP 4 SOCIOGRAM | GRAPH

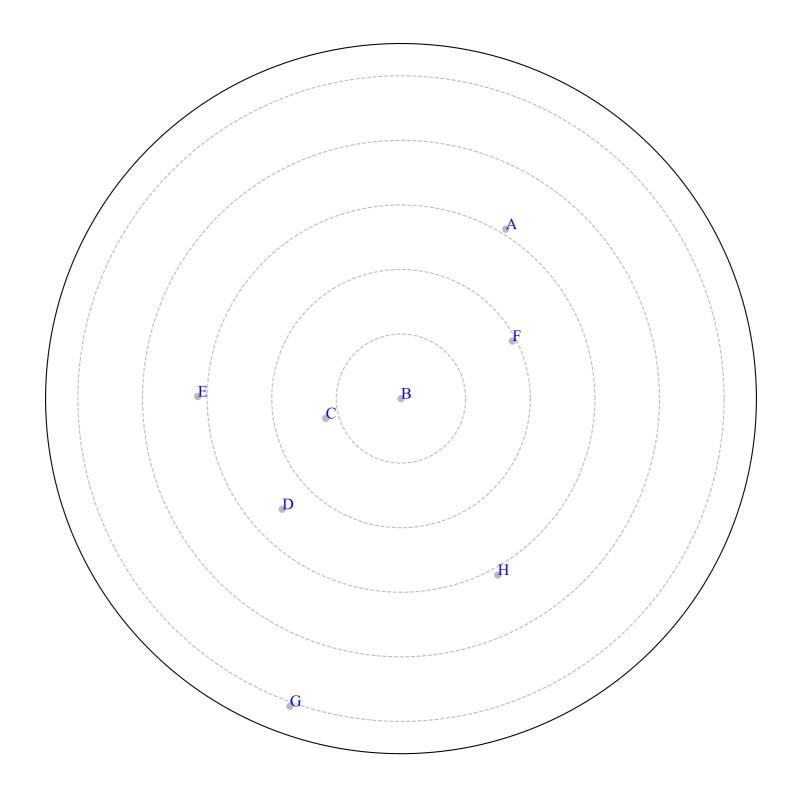
Influence index





DEMO | GROUP 4 SOCIOGRAM | GRAPH

Affiliation index





DEMO | GROUP 4

SOCIOGRAM | DESCRIPTIVES

Type I cohesion index: 37.50% Type II cohesion index: 0.38 Type I conflitct index: 37.50% Type II conflitct index: 0.38

ID	Count	Min	Max	Median	Mean	SD	CV	GN	SK	KT	P25	P75
Received preferences	8.00	0.00	6.00	2.00	2.00	1.93	0.96	0.47	1.28	2.31	0.75	2.25
Received rejections	8.00	0.00	5.00	2.00	2.00	1.51	0.76	0.38	0.99	1.66	1.00	2.25
Given Preferences	8.00	2.00	2.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
Given rejections	8.00	2.00	2.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
Mutual preferences	8.00	0.00	2.00	0.50	0.75	0.89	1.18	0.58	0.62	-1.48	0.00	1.25
Mutual rejections	8.00	0.00	2.00	1.00	0.75	0.71	0.94	0.46	0.40	-0.23	0.00	1.00
Balance	8.00	-4.00	4.00	-0.50	0.00	2.39	inf	0.41	0.08	0.69	-1.00	1.25
Orientation	8.00	0.00	0.00	0.00	0.00	0.00	nan	0.00	0.00	0.00	0.00	0.00
Impact	8.00	1.00	8.00	4.50	4.00	2.51	0.63	0.33	0.15	-0.98	1.75	5.25
Affiliation index	8.00	-4.00	4.00	-0.50	0.00	2.39	inf	0.41	0.08	0.69	-1.00	1.25
Influence index	8.00	0.00	8.00	2.50	2.75	2.71	0.99	0.50	1.04	0.86	0.75	3.50
	8.00	1.00	5.00	3.00	3.25	1.39	0.43	0.22	-0.16	-0.55	2.75	4.25
	8.00	1.00	5.00	3.00	3.12	1.25	0.40	0.21	-0.30	0.15	2.75	4.00
	8.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
	8.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
	8.00	1.00	3.00	2.50	2.25	0.89	0.39	0.19	-0.62	-1.48	1.75	3.00
	8.00	1.00	3.00	2.00	2.25	0.71	0.31	0.15	-0.40	-0.23	2.00	3.00
	8.00	1.00	6.00	4.50	3.88	1.73	0.45	0.23	-0.63	-0.80	2.75	5.00
	8.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
	8.00	1.00	6.00	3.50	3.75	1.83	0.49	0.26	-0.07	-1.22	2.75	5.25
	8.00	1.00	6.00	4.50	3.88	1.73	0.45	0.23	-0.63	-0.80	2.75	5.00
	8.00	1.00	6.00	3.50	3.75	1.83	0.49	0.26	-0.07	-1.22	2.75	5.25
	8.00	2.00	6.00	3.00	3.50	1.69	0.48	0.24	0.83	-0.97	2.00	4.50

Count Frequency Sum Sum Min Minimum Value Max Maximum Value Median Median Mean SD Standard Deviation CV Coefficient of Variation GN Gini Coefficient SK Skewness KT Kurtosis P25 25th Percentile P75 75th Percentile