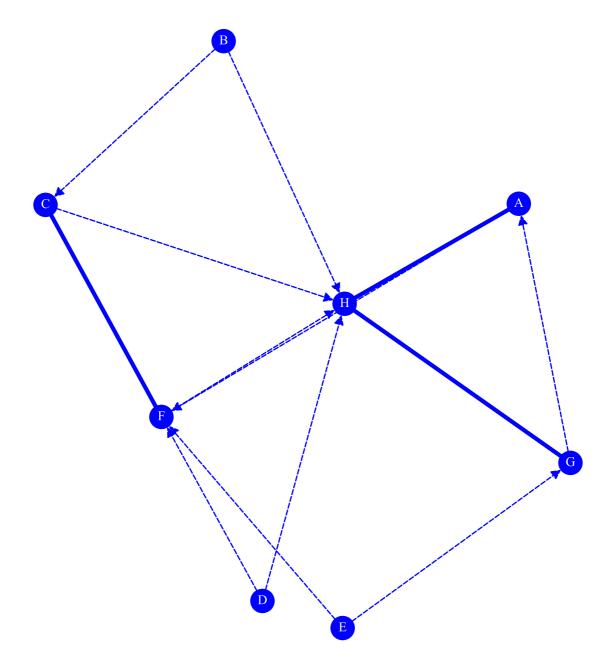


DEMO | GROUP 3 SNA NETWORK GRAPH

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

NN 8, NE 16, ND 29%, NC 52%, NT 50%, NR 38%



NN Nodes NE Edges ND Density NC Centralization NT Transitivity NR Reciprocity



DEMO | GROUP 3 SNA RAW SCORES

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

| ID | CHOICES | IC | PR | ВТ | CL | HU | ND |
|----|---------|------|------|------|------|------|----|
| A | F, H | 0.29 | 0.22 | 0.10 | 0.58 | 0.17 | |
| В | C, H | 0.00 | 0.02 | 0.00 | 0.00 | 0.13 | ← |
| C | F, H | 0.29 | 0.10 | 0.02 | 0.50 | 0.17 | |
| D | F, H | 0.00 | 0.02 | 0.00 | 0.00 | 0.17 | ← |
| E | F, G | 0.00 | 0.02 | 0.00 | 0.00 | 0.08 | ← |
| F | C, H | 0.57 | 0.17 | 0.13 | 0.70 | 0.13 | |
| G | A, H | 0.29 | 0.16 | 0.04 | 0.58 | 0.12 | |
| Н | A, G | 0.86 | 0.31 | 0.21 | 0.88 | 0.03 | |

IC In-Degree PR PageRank BT Betweenness CL Closenness HU Hub ND No In-Degree (←) No Out-Degree (→) No In or Out-Degree (⇄)



DEMO | GROUP 3 SNA RANK SCORES

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

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

IC In-Degree PR PageRank BT Betweenness CL Closenness HU Hub ND No In-Degree (\leftarrow) No Out-Degree (\rightarrow) No In or Out-Degree (\rightleftarrows) Very low Low High Very high



DEMO | GROUP 3

SNA NODES ORDERED BY RANKS

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

| RANK | IC | RANK | PR | RANK | ВТ | RANK | CL | RANK | HU |
|------|----|------|----------|------|-----------|------|----------|------|----|
| 1 | H | 1 | <u>Н</u> | 1 | <u> Н</u> | 1 | <u>Н</u> | 1 | A |
| 2 | F | 2 | A | 2 | F | 2 | F | 1 | C |
| 3 | A | 3 | F | 3 | A | 3 | A | 1 | D |
| 3 | C | 4 | G | 4 | G | 3 | G | 2 | В |
| 3 | G | 5 | С | 5 | С | 4 | С | 2 | F |
| 4 | В | 6 | В | 6 | В | 5 | В | 3 | G |
| 4 | D | 6 | D | 6 | D | 5 | D | 4 | E |
| 4 | E | 6 | E | 6 | E | 5 | E | 5 | Н |

IC In-Degree PR PageRank BT Betweenness CL Closenness HU Hub



DEMO | GROUP 3

SNA EDGES GROUPED BY TYPE

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

Non reciprocal edges

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

Reciprocal edges

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

 $(A \cdot H) (C \cdot F) (G \cdot H)$

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

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 3 SNA SUBGRAPHS

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

Climan

Cliques

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



 $C \cdot F \cdot H$



 $A \cdot F \cdot H$



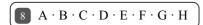
Strongly Connected Groups

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





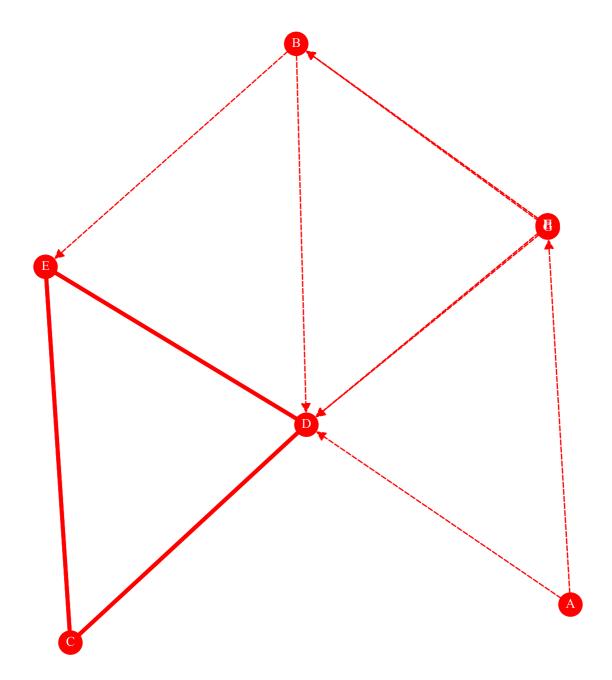
Interpretations drawn from the report should be integrated with other information related to the specific evaluation context.

This report is designed as a support tool to facilitate decision-making and does not replace the professional judgment of industry experts.

DEMO | GROUP 3 SNA NETWORK GRAPH

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

NN 8, NE 16, ND 29%, NC 71%, NT 75%, NR 38%



NN Nodes NE Edges ND Density NC Centralization NT Transitivity NR Reciprocity



DEMO | GROUP 3 SNA RAW SCORES

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

| ID | CHOICES | IC | PR | ВТ | CL | HU | ND |
|----|---------|------|------|------|------|------|----------|
| A | D, G | 0.00 | 0.02 | 0.00 | 0.00 | 0.11 | ← |
| В | D, E | 0.43 | 0.05 | 0.04 | 0.46 | 0.14 | |
| C | D, E | 0.29 | 0.27 | 0.00 | 0.58 | 0.14 | |
| D | C, E | 1.00 | 0.31 | 0.17 | 1.00 | 0.05 | |
| E | C, D | 0.43 | 0.29 | 0.01 | 0.64 | 0.12 | |
| F | B, D | 0.00 | 0.02 | 0.00 | 0.00 | 0.15 | ← |
| G | B, D | 0.14 | 0.03 | 0.02 | 0.14 | 0.15 | |
| Н | B, D | 0.00 | 0.02 | 0.00 | 0.00 | 0.15 | ← |

IC In-Degree PR PageRank BT Betweenness CL Closenness HU Hub ND No In-Degree (←) No Out-Degree (→) No In or Out-Degree (⇄)



DEMO | GROUP 3 SNA RANK SCORES

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

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

IC In-Degree PR PageRank BT Betweenness CL Closenness HU Hub ND No In-Degree (\leftarrow) No Out-Degree (\rightarrow) No In or Out-Degree (\rightleftarrows) Very low Low High \blacksquare Very high



DEMO | GROUP 3

SNA NODES ORDERED BY RANKS

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

| RANK | IC | RANK | PR | RANK | ВТ | RANK | CL | RANK | HU |
|------|----|------|----|------|----|------|----|------|----|
| 1 | D | 1 | D | 1 | D | 1 | D | 1 | F |
| 2 | В | 2 | E | 2 | В | 2 | E | 1 | G |
| 2 | E | 3 | С | 3 | G | 3 | С | 1 | Н |
| 3 | C | 4 | В | 4 | E | 4 | В | 2 | В |
| 4 | G | 5 | G | 5 | A | 5 | G | 2 | C |
| 5 | A | 6 | A | 5 | C | 6 | A | 3 | E |
| 5 | F | 6 | F | 5 | F | 6 | F | 4 | A |
| 5 | Н | 6 | Н | 5 | Н | 6 | Н | 5 | D |

IC In-Degree PR PageRank BT Betweenness CL Closenness HU Hub



DEMO | GROUP 3

SNA EDGES GROUPED BY TYPE

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

 $\mathbf{B}\cdot\mathbf{E}$

 $\mathbf{F} \cdot \mathbf{D}$

 $G \cdot B$

 $G\cdot D$

 $\mathbf{H} \cdot \mathbf{B}$

Non reciprocal edges

 $B \cdot D$

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

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

 $\mathbf{C}\cdot\mathbf{D}$ $\mathbf{C} \cdot \mathbf{E}$ $\mathbf{D}\cdot\mathbf{E}$

Reciprocal edges

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

 $A\cdot G$ $F\cdot D$ $\mathbf{H} \cdot \mathbf{B}$ $H\cdot D$

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

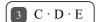


DEMO | GROUP 3 SNA SUBGRAPHS

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



 $B \cdot D \cdot G$

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

 $\left(\begin{array}{c} \mathbf{B} \cdot \mathbf{D} \cdot \mathbf{E} \end{array}\right)$

 $B \cdot D \cdot H$

 $A \cdot D \cdot G$

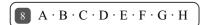
Strongly Connected Groups

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 3 SOCIOGRAM

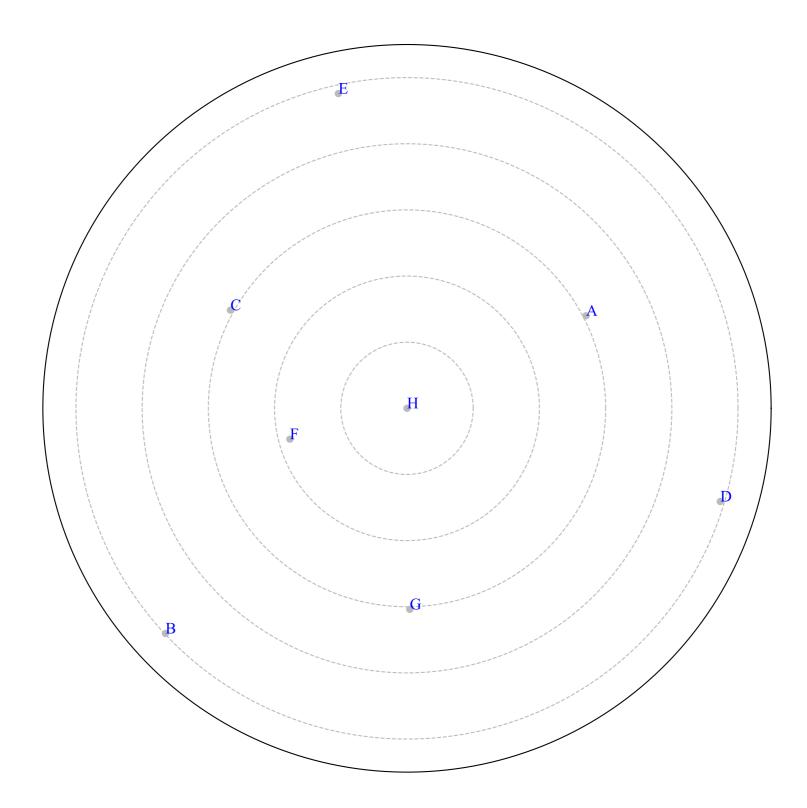
| ID | RP | RR | GP | GR | MP | MR | BL | OR | IM | AC | IC | ST |
|----|----|----|----|----|----|----|----|----|----|----|----|----------|
| A | 2 | 0 | 2 | 2 | 1 | 0 | 2 | 0 | 2 | 2 | 3 | marginal |
| В | 0 | 3 | 2 | 2 | 0 | 0 | -3 | 0 | 3 | -3 | 0 | marginal |
| C | 2 | 2 | 2 | 2 | 1 | 2 | 0 | 0 | 4 | 0 | 3 | - |
| D | 0 | 7 | 2 | 2 | 0 | 2 | -7 | 0 | 7 | -7 | 0 | rejected |
| E | 0 | 3 | 2 | 2 | 0 | 2 | -3 | 0 | 3 | -3 | 0 | marginal |
| F | 4 | 0 | 2 | 2 | 1 | 0 | 4 | 0 | 4 | 4 | 5 | popular |
| G | 2 | 1 | 2 | 2 | 1 | 0 | 1 | 0 | 3 | 1 | 3 | marginal |
| Н | 6 | 0 | 2 | 2 | 2 | 0 | 6 | 0 | 6 | 6 | 8 | popular |

RP Received preferences RR Received rejections GP Given preferences GR Given rejections MP Mutual preferences MR Mutual rejections BL Balance OR Orientation IM Impact AC Affiliation coefficient IC Influence coefficient ST Sociometric status Very low Low High Very high



DEMO | GROUP 3 SOCIOGRAM

Influence coefficient

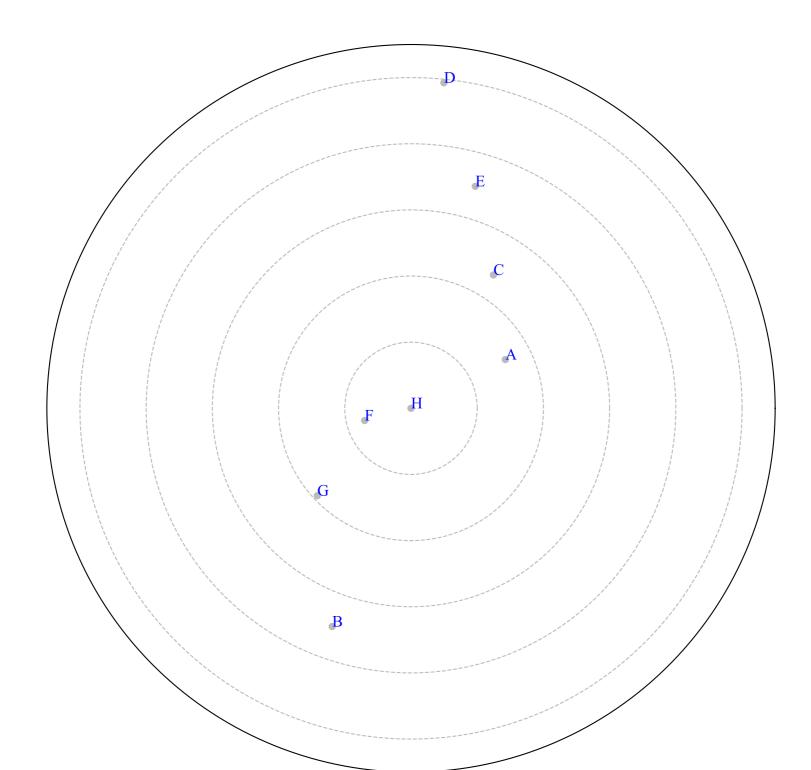


Authors: Dr. Pierpaolo CALANNA, PhD, Dr. Gaetano BUONAIUTO (2021-2025), **License of use**: the layout of this report, the customization of charts, as well as the selection of quantitative indices, are subject to copyright.



DEMO | GROUP 3 SOCIOGRAM

Affiliation coefficient





DEMO | GROUP 3

SOCIOGRAM NODES ORDERED BY RANKS

| RANK | RP | RANK | RR | RANK | GP | RANK | GR | RANK | BL | RANK | IM | RANK | AC | RANK | IC |
|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|
| 1 | Н | 1 | D | 1 | A | 1 | A | 1 | H | 1 | D | 1 | H | 1 | H |
| 2 | F | 2 | В | 1 | В | 1 | В | 2 | F | 2 | Н | 2 | F | 2 | F |
| 3 | A | 2 | E | 1 | C | 1 | C | 3 | A | 3 | C | 3 | A | 3 | A |
| 3 | C | 3 | C | 1 | D | 1 | D | 4 | G | 3 | F | 4 | G | 3 | C |
| 3 | G | 4 | G | 1 | E | 1 | E | 5 | C | 4 | В | 5 | C | 3 | G |
| 4 | В | 5 | A | 1 | F | 1 | F | 6 | В | 4 | E | 6 | В | 4 | В |
| 4 | D | 5 | F | 1 | G | 1 | G | 6 | E | 4 | G | 6 | E | 4 | D |
| 4 | Е | 5 | Н | 1 | Н | 1 | Н | 7 | D | 5 | A | 7 | D | 4 | Е |

RP Received preferences RR Received rejections GP Given preferences GR Given rejections BL Balance IM Impact AC Affiliation coefficient IC Influence coefficient



DEMO | GROUP 3 SOCIOGRAM STATISTICS

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 | Sum | Median | IQR | Mean | SD | Min | P25 | P50 | P75 | Max |
|-----------------------------|-------|-----|--------|-----|------|------|-----|-----|-----|-----|-----|
| Received preferences | 8 | 16 | 2 | 2 | 2.00 | 2.14 | 0 | 0 | 2 | 2 | 6 |
| Received rejections | 8 | 16 | 1 | 3 | 2.00 | 2.39 | 0 | 0 | 1 | 3 | 7 |
| Given Preferences | 8 | 16 | 2 | 0 | 2.00 | 0.00 | 2 | 2 | 2 | 2 | 2 |
| Given rejections | 8 | 16 | 2 | 0 | 2.00 | 0.00 | 2 | 2 | 2 | 2 | 2 |
| Mutual preferences | 8 | 6 | 1 | 1 | 0.75 | 0.71 | 0 | 0 | 1 | 1 | 2 |
| Mutual rejections | 8 | 6 | 0 | 2 | 0.75 | 1.04 | 0 | 0 | 0 | 2 | 2 |
| Balance | 8 | 0 | 0 | 5 | 0.00 | 4.21 | -7 | -3 | 0 | 2 | 6 |
| Orientation | 8 | 0 | 0 | 0 | 0.00 | 0.00 | 0 | 0 | 0 | 0 | 0 |
| Impact | 8 | 32 | 3 | 1 | 4.00 | 1.69 | 2 | 3 | 3 | 4 | 7 |
| Affiliation coefficient raw | 8 | 0 | 0 | 5 | 0.00 | 4.21 | -7 | -3 | 0 | 2 | 6 |
| Influence coefficient raw | 8 | 22 | 3 | 3 | 2.75 | 2.82 | 0 | 0 | 3 | 3 | 8 |

IQR Interquartile range SD Standard Deviation Min Minimum value P25 25° percentile P50 50° percentile P75 75° percentile Max Maximum value