



Portfolio-Engineering

the right projects, done right

Affinity Diagram Technique

Creatively Generating and Organizing Ideas

Version 1.1

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Affinity Diagram Technique

Objectives

- To define affinity diagram, understand the value of affinity diagram technique and know when to use it
- To review affinity diagram technique



Affinity Diagram Technique

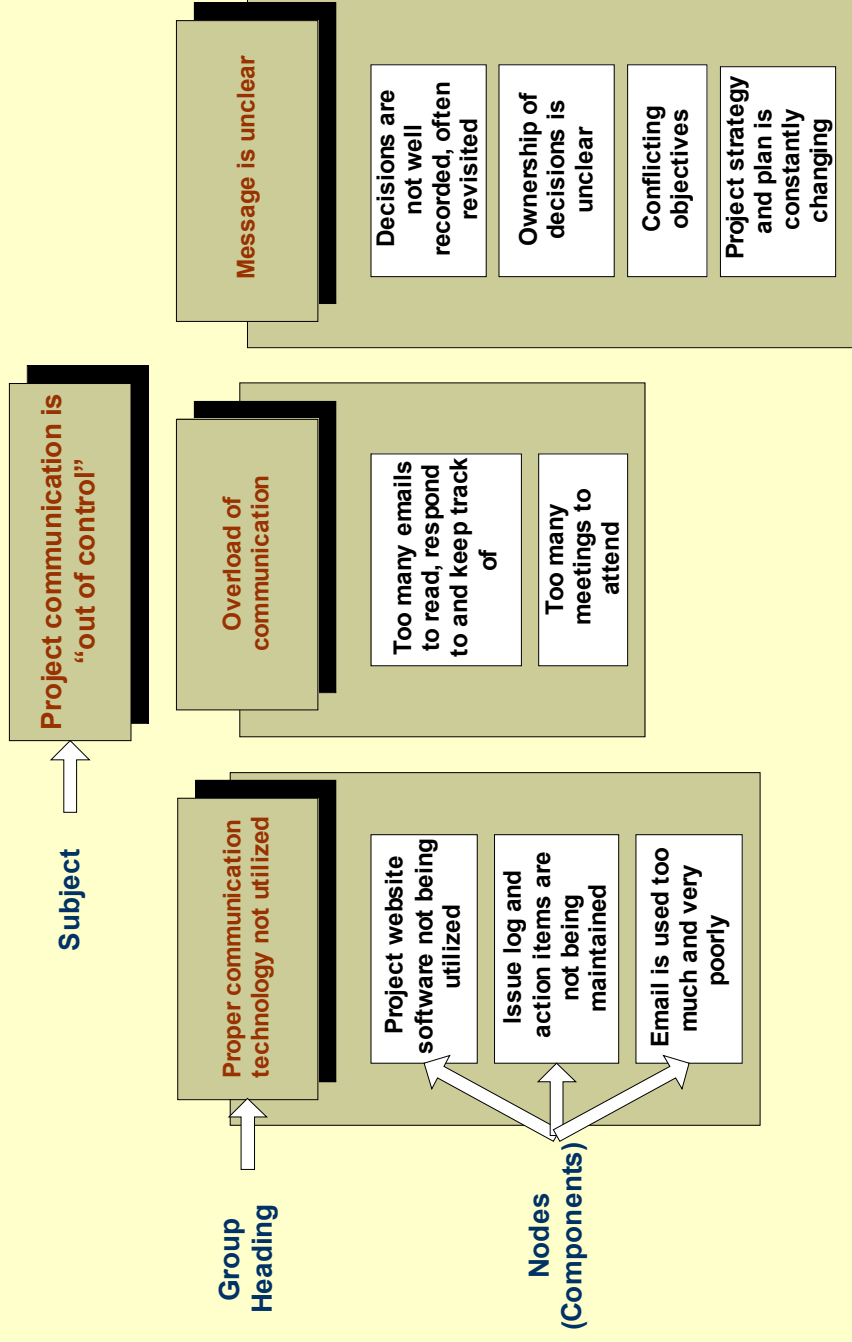
Affinity Diagram

An **affinity diagram** is a graphical representation of a subject or problem. It includes a **brief but precise statement of the subject and nodes** to represent all of the components of the subject which have been **organized into logical, well-labeled groups**. The **value of affinity diagrams** lies mainly in the **technique** rather than the result.



Affinity Diagram Technique

Affinity Diagram Example



Note: This example is abbreviated. A typical affinity diagram will contain many more nodes.



Affinity Diagram Technique

Value of the Technique

- Encourages open, creative and collaborative input and participation from the whole team
- Avoids traditional communication barriers and overcomes communication problems
- Clearly defines and records a common understanding of the essence of a complex subject
- Encourages rapid discovery of many new ideas and issues



Affinity Diagram Technique

Value of the Technique

- Triggers breakthrough thinking and discovery of abstract, non-traditional associations
- Helps important issues and potential solutions to emerge
- Helps teams to push past a blockage and deal with complex issues, to creatively shape solutions with team consensus
- Encourages team ownership of the results
- Value is often found more in the exercise itself than the result



Affinity Diagram Technique

When to use the Technique

- During creative phases of projects to promote consistent understanding, to gather new ideas and to assist in planning
- When a team is blocked by recognition of an abstract problem without an evident or agreed upon solutions



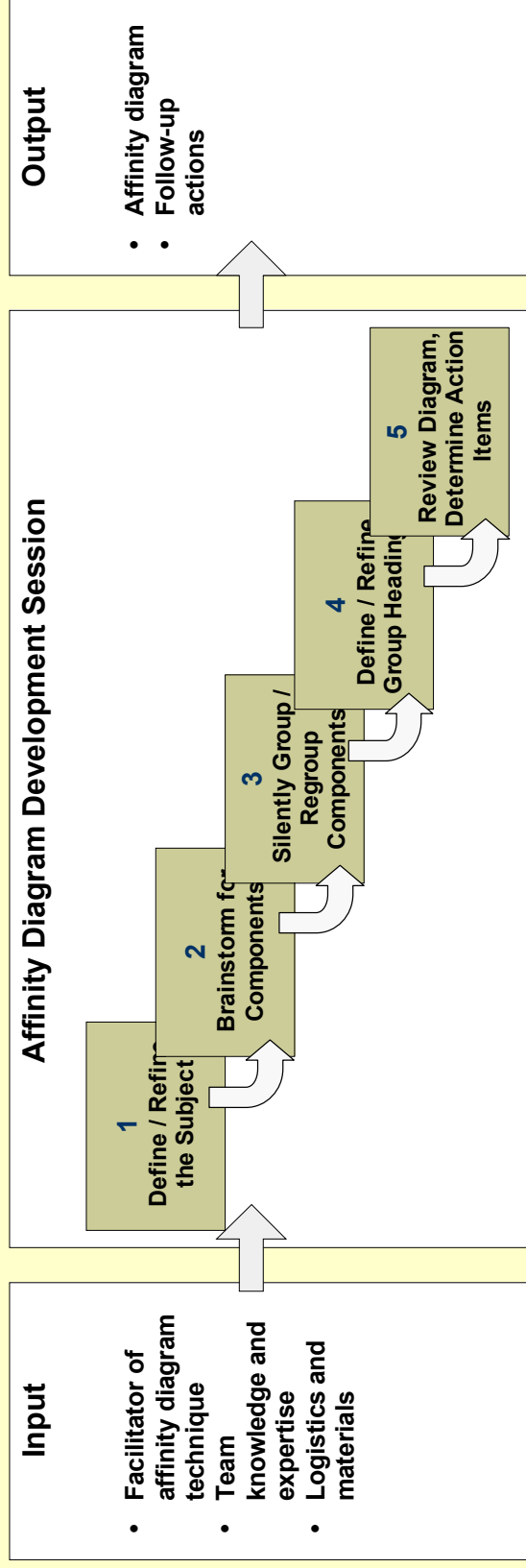
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Affinity Diagram Technique

Affinity Diagram Technique Overview



Affinity Diagram Technique

Input - Facilitator and Team

- Assign an **experienced facilitator** (often the project manager)
 - Good facilitation and affinity diagram technique
- Involve a **core team** of perhaps 4 – 6 people that collectively possess a **comprehensive, detailed knowledge of the subject** (larger group can be involved with good facilitation)
- Be sure to be **cross-functional** in the team makeup and make sure that **all essential organizations** are represented

Affinity Diagram Technique

Input - Logistics and Materials

- Pick a convenient date and book a comfortable location
- Send out initiations with appropriate notice
 - Provide pertinent (but not leading) information about the subject under consideration
- Prepare materials:
 - Poster paper (e.g. brown “butcher block” paper)
 - Post-it notes and scotch tape (they do fall off)
 - Pens/markers



Affinity Diagram Technique

1 Define / Refine the Subject

- Create, through consensus, a clear, descriptive phrase that describes the subject or problem of the affinity diagram. Wordsmith the subject carefully until it succinctly represents the subject at hand
- Write the subject on a Post-it note and put it at the top of a large piece of poster paper (as Post-it notes will be moved many times, a flat table often works best)



Affinity Diagram Technique

2 Brainstorm the Components

Use brainstorming techniques to solicit ideas about components that are a part of the subject.

- Structured approach – each member in turn contributes an idea, “passing” as necessary
- Unstructured approach – ideas are randomly contributed by the team
- Stress high volume, rapid contribution, free from analysis, judgment or criticism
- Build on others ideas, observe subtle differences of language (no interpretation just seek to understand)



Affinity Diagram Technique

2 Brainstorm the Components

- Ideas should be a short, descriptive phrase (noun and a verb)
 - Choose your language so that you fully express your idea in a way that will be understood later
- Record each idea on a Post-it note in clear, large print and stick the note in no particular order or position on the poster paper



2 Brainstorm the Components

- Continue until the group have exhausted their ideas. Diagram may contain dozens or hundreds of nodes.
- Review and refine the nodes
 - Clarify the language to remove ambiguity
 - Combine similar nodes to remove repetitions



Affinity Diagram Technique

3 Silently Group / Regroup the Components

- The whole group participates in silently moving the Post-it notes around on the poster paper to form groups (or clusters) of nodes that have a natural association
- Focus on the meaning behind the associations, strive to understand the group thinking while asserting your own connections



Affinity Diagram Technique

3 Silently Group / Regroup the Components

- If a node is continuously moved back and forth between two groups, create a duplicate of the node and put it in both places
- Some nodes may stand alone in their own group
- Grouping / regrouping continues until group consensus has been reached without vocalizing rationale



Affinity Diagram Technique

4 Define / Refine Group Headings

- For each group that has been formed, through group consensus draft a phrase that captures the central theme of nodes
- Take the time to wordsmith the group heading carefully until it succinctly represents all of the components in the group
- Record the group heading on a Post-it note and place it at the top of the grouping



Affinity Diagram Technique

4 Define / Refine Group Headings

- Divide large groups as necessary and work with the group to understand and refine the affinity diagram as necessary
- Much of the analysis and value of the affinity diagram technique happens during this step as associations are discovered and understood
- When stable, draw boxes around each of the labeled groups



Affinity Diagram Technique

5 Review Diagram / Determine Follow-up

- Review and analyze the diagram to determine its message
- Determine an appropriate follow-up to the exercise
- Consider using the diagram as input to an interrelationship digraph exercise or other technique to quantify the groups in their cause and effect relationships



Affinity Diagram Technique

Related Exercises

Portfolio-Engineering recommends reviewing the material through the following exercises:

- Project Management Affinity Diagram



Affinity Diagram Technique

Next Steps

Portfolio-Engineering recommends reviewing the following related materials:

- Effective Meeting Techniques
- Brainstorming Techniques



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