Evaluating Group Interventions:

A Framework for Diagnosing, Implementing, and Evaluating Group Interventions

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ABSTRACT

This article presents a framework for group facilitators to assess needs for interventions, select and/or design the interventions, and evaluate the effects of the interventions over time. The purpose is to help facilitators use existing intervention theory and research to guide their practice. Examples of interventions and related research are presented for the facilitation of group relationship development, idea generation, capacity building, performance reflection, and opportunities for change. A guideline is offered for using this knowledge to diagnose, implement, and evaluate group interventions.

EDITOR'S NOTE

There are a range of areas that a facilitator may intervene in order to take the group forward. Several philosophies, models of facilitation, and group development theories may underpin the choice and use of interventions that are called for in group facilitation practice. This article presents a framework to help facilitators diagnose, implement, and evaluate the interventions they use. A range of intervention examples and related literature are presented that facilitators may consider when they are designing, implementing or assessing interventions with their groups.
—Editor, Stephen Thorpe

KEYWORDS

Group facilitation, group interventions, needs assessment, outcomes evaluation.

Group facilitators work with group leaders and members to determine group needs, select and/or design interventions, implement them, and then evaluate the effects of the interventions over time (Hogan, 2002; Hunter, 2007). Facilitators draw on interventions that help group members get to know one another, generate ideas, build capacity, and think about group process and directions for change. This article presents a framework to help facilitators diagnose, implement, and evaluate interventions based on theory and research. This framework has three elements: (1) the main components of group dynamics, (2) theory and research on how interventions affect these components, and (3) suggestions for applying knowledge about group interventions to identify group needs, design and implement interventions, and evaluate the effects of the interventions.

Group Facilitation

Facilitation comes from the Latin word "facilis", which means easy or easily done (it stems from fa'cere, to do or make; Swinton, 2006). Originally the word had a broad meaning, suggesting that facilitation is making things easier for someone.

Intervention comes from the Latin word "intervenire", meaning to come between or interrupt, derived from inter- "between" and venire - "come" (Harper, 2001). In connection with groups, facilitation means making the group's work easier and overcoming obstacles to group performance (Blair, 1996). A facilitator is "…a self-reflective, process-person who has a variety of human, process, technical skills and knowledge, together with a variety of experiences to assist groups of people to journey together to reach their goals" (Hogan, 2002, p. 57). Schwarz (2002, p. 5) defined group facilitation as "a process in which a person whose selection is acceptable to all members of the group, who is substantively neutral, and who has no substantive decision-making authority diagnoses and intervenes to help a group improve how it identifies and solves problems and makes decisions, to increase the group's effectiveness." (See these and other definitions compiled by Sandor Schuman at http://www.iaf-world.org/i4a/pages/Index.cfm?pageid=3290.) Facilitators guide the implementation of interventions to help groups achieve their intended goals. A facilitator may start with a diagnosis of the group situation in relation to its agreed purpose and then choose an intervention. Facilitation may include one or more interventions (Schwarz, 2002). The term intervention suggests that the facilitator knows the reason for the intervention (that is, what needs to change) and where to intervene (that is, what variables to affect to bring about the needed change). The facilitator draws on theory and research that indicate interventions that are most promising for different situations and can be adapted for a given situation. The facilitator assesses the needs of the group and the intent of a chosen intervention to know whether the intervention is likely to be successful and to consider whether there should be a change of course, for instance, to revamp or discard the intervention or try an alternative. Facilitators have tactics and tools for different conditions and stages of group process. Interventions may be planned strategies, structured processes, or on-the-spot efforts to meet specific group needs. Facilitators evaluate the conditions of the group (e.g., the task, members' capabilities, progress, barriers, conflicts) and determine what needs to be done and when.

Group facilitation encompasses many techniques used by a large community of practitioners. There are numerous facilitation handbooks and guidelines (e.g., Rees, 1998; Hogan, 2002; Hunter, Bailey, & Taylor, 1992, 1996; Schwarz, 2005; Jenkins & Jenkins 2006; Schuman, 2005, 2006), consulting firms that offer facilitation, and organizations and communities of practice such as the International Association of Facilitators, Southeast Association of Facilitators, and Change Facilitation Network (cf. Schuman, 2005). Facilitators have theoretical frameworks to guide group analysis, set goals for facilitation, and evaluate their interventions (cf. Hunter, 2007). Facilitators' work is guided and improved by theory and research. Such knowledge helps facilitators reflect on their experiences and provides them with empirical results to direct their choice of interventions.

Facilitators' interventions stem from systems of practice (e.g. structures for continuous quality improvement), philosophies and models of organization learning (e.g., the belief that groups benefit from taking a break from their work to have a discussion about their group process), or standards of good practice (e.g. the use of ice breakers to help members get to know each other and feel more comfortable when the group begins). Facilitators learn to apply skills, theories, personal qualities, and/or awareness of the political nature of group process and facilitation (Thomas, 2005). Facilitators assess and influence variables that researchers have found are important for effective group functioning. For instance, Erickson and Dyer (2004) suggested that a group needs the right talent, sufficient time (with group members willing to devote the time needed for group success), and a clear, well-structured task so that group members know their roles and goals. Kozlowski and Ilgen (2006) include team design, training, and development as variables to manipulate (which could be called levers) to promote group effectiveness. Wageman, Hackman, and Lehman (2005) highlight five conditions that are key to effective team functioning: (1) being a "real team," meaning one with clear boundaries, a common purpose, and stable membership; (2) having a compelling direction with challenging goals and purpose and clear consequences of success and failure; (3) having a structure, including clear task components and an alignment of purpose, composition, and norms of conduct; (4) having a supportive organizational context, including resources, encouragement, education, and training; and (5) having an expert leader and facilitator who minimizes the group's exposure to process losses and maximizes chances for synergistic process gains. Wageman et al.'s (2005) Team Diagnostic Survey can be used to pinpoint areas that are faltering and can benefit from interventions.

Here we present a three-pronged framework to guide facilitators' choice, design, and evaluation of interventions. We now consider the three components of our framework for helping facilitators to apply group interventions: a model of group dynamics that specifies targets for intervention, theory and research on interventions, and applications of this knowledge to assess group needs, develop interventions, and evaluate their outcomes.

Group Dynamics

Facilitators are guided by an understanding of group dynamics, such as the basic systems model we developed in Figure 1. We numbered the elements in the figure to refer to the text below. The elements in this model, similar to those presented in general texts on group process (e.g., see Baron & Kerr, 2003), can be used to diagnose group needs, design interventions, and track their impact. The elements are not independent, and any intervention is likely to affect multiple variables at once and over time. Also, the variables that are important will change as the group develops and its needs and the challenges it faces evolve.

• *Group facilitators can use existing theory and research on group dynamics to diagnose, implement, and evaluate their interventions.*
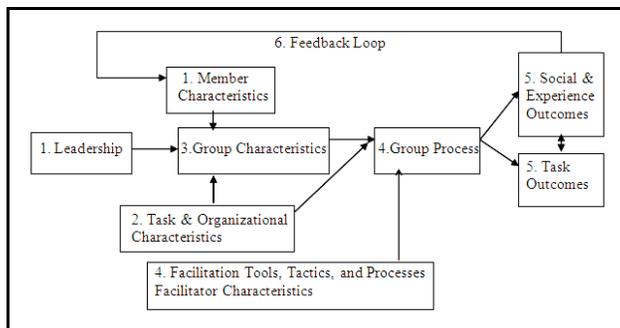

Fig. 1. Elements of Group Dynamics

Consider examples of variables for each element in Figure 1 above and how facilitators can use these variables to diagnose group needs, design interventions, and track their impact.

1. Member and Leader Characteristics

Characteristics of leaders and members include their task-related knowledge and skills (Ericksen & Dyer, 2004), psychological collectivism (feeling toward the group and liking being part of the group; Jackson, Colquitt, Wesson, & Zapata-Phelan, 2006), openness to new experiences and ideas (Sessa & London, 2006), self-efficacy (Katz-Navon & Erez, 2005), and learning orientation (desire to increase their competencies by developing new skills and mastering new situations; Bunderson & Sutcliffe, 2003; VandeWalle, 1997). A facilitator might measure a set of characteristics that are relevant to the task and the group members' interactions at the time. For instance, if group members seem to be distracted and have trouble staying on task, measures of psychological collectivism and self-efficacy would suggest the extent to which members' feelings about the group and their own competence are interfering with the process. If the group seems to resist new ideas, measures of openness to new experiences and learning orientation may explain the resistance and suggest an intervention that focuses on how the group members can brainstorm new ideas or share knowledge. Administering measures early in the group process, perhaps even before the group starts meeting, could help the facilitator prevent problems from arising by, for instance, providing an overview of group process if the members have had little experience working in groups, or advising the leader about how to empower members if the members initially feel they are low in self-

efficacy as individuals or as a group. Measures of the leader's style before the group begins might suggest that the leader participate in a leadership training program before starting the group. The results would also suggest how the facilitator can work best with the leader (e.g., a leader may need guidance on transformational leadership if the group members are highly experienced and the task requires envisioning and implementing new ideas).

2. Task and Organizational Characteristics

Task characteristics include task complexity (Hackman & Wageman, 2005), role clarity (the clarity of the roles members have in the group; Deeter-Schmelz, 1997), task interdependence (the degree to which each member needs to work together to obtain the group goals; Man & Lam, 2003), and task design (the degree to which the task is aligned with the group's overall purpose and direction; Wageman et al., 2005). Of course, the group may be responsible for more than one task, adding to the complexity of the group dynamics. Organizational conditions include time pressures, resources, and potential consequences (promised positive outcomes for task achievement and negative outcomes for failure; Hackman & Wageman, 2005). Facilitators can assess these characteristics by interviewing the leader and members and/or administering a survey of the leader and members asking about the task and organizational conditions. The facilitator can also learn about the task by observing the group process and/or reviewing materials that are available, for instance, meeting summaries (minutes) or a written charge and task description that an executive may have issued in the process of commissioning the group. Understanding the task will help the facilitator guide the leader about the amount of structure needed, setting goals and time lines, and responding to outside pressures.

3. Group Characteristics

Examples of group characteristics that influence group process are diversity (the differences in the group member's demographics, knowledge, skills, networks, and ideas; Ely & Thomas, 2001), group size (Cohen & Bailey, 1997), and group learning orientation (the desire of a team to gain new skills, improve overall competence, and master new situations. This may be the sum of each individual member's learning orientation or something more; Bunderson & Sutcliffe, 2003; VandeWalle, 1997). Size and demographics are objective data that the facilitator can compile. Group learning orientation can be measured as part of a member survey. The facilitator can help the group understand how their characteristics as individuals combine to influence how they interact in the process of meeting task demands.

4. Group Process and Process Interventions

Various stage models of group process suggest how groups develop and the problems and opportunities for intervention that arise along the way. Tuckman and Jensen (1977) distinguished between forming, storming, norming, performing, and disbanding as stages that may unfold in varying time frames and may repeat. Hackman & Wageman (2005) and Woolley (1998) suggested that the appropriateness of a facilitation method, such as coaching, depends on the stage of group process. During the early stage, when members are first meeting each other and getting to know the task and what is expected of them, they need to be motivated to work on the task and with each other (Hackman & Wageman, 2005). As the work gets underway, they need task structure. This may help them break through the midpoint crisis, or avoid the crisis altogether, forming workable structures earlier and avoiding rework. As the group completes its work, the members will be responsive to coaching that helps them reflect on group process and what they learned about how they can interact more effectively in the future. Such stages are not necessarily linear (Smith, 2001). For instance, Gersick (1900) discovered that groups establish a structure and roles fairly quickly and discuss courses of action as they proceed to the midpoint in their lifecycle.

Group processes may reflect how and what the group has learned. Kozlowski and Ilgen (2006) concluded that while teams that learn more collectively demonstrate enhanced effectiveness, there has been little research on the concept of team learning. Over time, group members learn interaction patterns that indicate a greater integration of talents, ideas, and behaviors, taking advantage of the skills and experiences among group members and creating a synthesis that is greater than any one individual in the group (Kasl, Marsick, & Dechant, 1997). Facilitators can observe the group process to determine the interaction patterns that are repeated and the extent to which the group adapts when the situation changes (Rico, Sánchez-Manzanares, Gil, & Gibson, 2008). The facilitator can help the group recognize these patterns and discuss the extent to which they allow the group to respond to unexpected events or interfere with finding new ways to interact when routine interactions don't work well.

5. Outcomes

Ultimately, interventions are supposed to improve group outcomes. Hackman and Wageman (2005) distinguished between three elements of group effectiveness: (1) productive outcomes (the quality, quantity, speed, satisfaction of the group's product, decision, report, and so on), (2) experience (the learning acquired by the individual group members and the group as a whole), and (3) social outcomes (the group's well-being and ability to work together in the future). Social outcomes may be group cohesion (the degree to which members are attracted to each other, take pride in their group membership,

and are committed to the group; Cartwright & Zander, 1960) and transactive memory (members developing knowledge about the other group members' skills and knowledge and ways of interacting which they can rely on when unexpected conditions arise; Lewis, 2003). Generally, groups value outcomes that address process, relationships and issues (Moore, 2001). Facilitators can measure these outcomes to evaluate group progress and provide the group with feedback for guiding later interactions.

6. Feedback Loop

As group interactions develop and outcomes are achieved, patterns emerge that become leader, member, and group characteristics. For instance, over time, the group may develop a sense of collective identification and interpersonal congruence (the degree to which the members see each other similarly; Polzer, Milton, & Swann, 2002; Swann, 1996). This leads to the emergence of norms and ground rules (standards and expectations shared by group members about how to behave; Cohen & Bailey, 1997), collaboration (Cohen & Bailey, 1997), and the group's sense of collective efficacy (Myers, Feltz, & Short, 2004). A social facilitation effect may occur such that the presence of the group members motivates individuals to exert more energy. Alternatively, a social loafing effect may emerge such that the presence of others causes members to rely on other group members and reduce their energy (Brehm, Kassin, & Fein, 2005). Dysfunctional processes can also occur, such as groupthink (a highly cohesive group under stressful conditions seek consensus to excess; Janis, 1982) or group polarization (exaggeration of group members' expressions; Isenberg, 1986), suggesting the need for intervention. Facilitators can identify these effects by observing group process. The facilitator can help the group reflect not only on the group process but also on how they are changing as individuals and as a group and whether that change is helping or possibly hurting group process.

Theory and Research on Interventions

Next, consider three categories of interventions: tools (mechanisms to follow, such as ice breakers), tactics (actions to solve problems or accomplish goals, such as brainstorming, cross-training, team building, reflection), and processes (a set of actions that reflect how tactics are conducted, such as the Nominal Group Technique and Delphi method for brainstorming). Also, as noted in Figure 1, facilitator characteristics need to be included as potentially influencing how an intervention evolves (Hunter, Bailey, & Taylor, 1996; Senge & Scharmer, 2001). "The success of an intervention depends on the interior condition of the intervener" (William O'Brien, former CEO of the Hanover Insurance Company discussing his experiences in leading change, quoted by Scharmer, 2000, p. 29). Such characteristics can include the facilitator's experience, relationship with the group members, and skillfulness.

Interventions may also be categorized as helping a group to do something (generate and evaluate ideas) compared to those that develop the group's capacity (cross-training and teambuilding). Moreover, interventions vary in terms of what they change (i.e., the variables that they manipulate or develop) and the outcomes they are aimed at changing.

Table 1 presents a range of examples of interventions and related research for the facilitation of group relationship development, idea generation, capacity building, performance reflection, and opportunities for change. The table includes interventions that facilitators could use based on the different variables presented in the Elements of Group Dynamics model (see Figure 1). These interventions are designed to help group members get to know one another, generate ideas, build capacity, reflect on, and improve their group process. In the second column of table 1 are quotes from the literature related to each intervention. In column three are suggested variables from Figure 1 that are manipulated and likely to change as a result of the facilitator's intervention. For example, ice breakers are a tool for helping members get to know one another at the outset of the group. Literature cited indicates that groups are more effective when members know each other's background and areas of expertise, tension is reduced, a sense of psychological safety develops early in the group process. The leader invites group members to suggest an ice breaking process, and the facilitator facilitates the suggested process. If the group is not ready to suggest a process the facilitator may offer to lead a process or recommend several ice breaking options. Members gain role clarity and a recognition of how each member can contribute to the group (interpersonal congruence). To take another example from Table 1, cross-training is a method for building capacity. Literature cited indicates that cross-training can make group members more effective in communicating, coordinating, and anticipating each other's behaviors and reactions. Cross-training has the potential to enhance elements of 4. Group process and affect 3. Group characteristics (e.g., members' skills, knowledge, and role clarity) and process variables (e.g., collaborative interaction patterns, transactive memory, and interpersonal congruence).

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* *Interventions include tools, tactics, and processes that help a group accomplish its tasks and expand the group's capacity.*

Tools, Tactics, and Processes for Different Purposes	Sample Literature	Variables in Fig 1 that Are Manipulated by the Tools, Tactics, and/or Processes*	Variables in Fig 1 that Change (Intended Outcomes and & Assessment Measures[1])
Purpose: Relationship Development Example: Use ice breakers to assist group members in getting to know one another; may also be used by groups mid-way as a reflection process. Use ice breakers (tools) short exercises (games, problem solving exercises) to reduce tension and anxiety in a group and to speed up disclosure between group members. Introductions help members understand how each person can contribute to the group (Edmondson, 1999; Ericksen & Dyer, 2004; Polzer et al., 2002).	There are many methods for getting a group started. Ice breakers are aimed at enhancing members' comfort in working with each other and feeling psychologically safe to express their ideas. They help members feel a reduction in tension, develop rapport faster, and promote psychological safety (McGrath & Higgins, 2006; Hughes, 2002). Groups are more effective when members get to know each other quickly by sharing information about their expertise and giving each other feedback that verifies their self-concept (Polzer et al., 2002).	4. Group Process: Intervene by inviting group members to suggest an ice breaking process; the facilitator facilitates the suggested process. If the group is not ready to suggest a process, the facilitator may offer to lead a process or recommend several ice breaking options.	5. Social & Experience Outcomes: Psychological safety, role clarity, interpersonal congruence
Purpose: Idea Generation Example 1: Brainstorming (tactic): where people express their ideas on a topic or problem by following some simple rules (Osborne, 1953). Example 2:Nominal Group Technique (process) Delphi Technique (process) Example 3:Group members are physically dispersed, at least initially (Turoff & Linstone, 2002). The group's opinion is found from responses to surveys, questionnaires, and/or emails. The group has to reach consensus through "thesis" (expressing opinions), "antithesis" (expressing conflicting opinions), and "synthesis" (reaching new common agreement or opinion).	People brainstorming in a group mostly under-perform compared to individuals working alone (Nijstad, Diehl, & Stroebe, 2003; Paulus & Brown, 2003). A meta-analysis by Mullen, Johnson, & Salas (1991) showed that brainstorming groups were only about half as productive as nominal groups (individuals working alone). The nominal group technique is more effective in generating ideas and producing higher member satisfaction (Van de Ven & Delbecq, 1974). Compared to idea generation and decision making in conventional interacting groups, the Delphi method is more effective in generating ideas and fostering member satisfaction (Van de Ven & Delbecq, 1974).	4. Group process: Facilitator may introduce the tactic or process. 3. Group characteristics: Members must be able to withhold criticism. 4. Structure of Nominal Group Technique and Delphi Method restrict interaction to avoid process losses.	5. Social & Experience Outcomes: Openness to new ideas and experiences, feeling of psychological safety, fair process.

[1] The numbers in these columns refer to the variables as numbered in Figure 1 above.

Purpose: Build capacity

Example 1: Cross-training (tactic) (Kozlowski & Ilgen, 2006). Important when the group members' tasks are interdependent (Marks, Sabella, Burke, & Zaccaro, 2002). Team building (tactics)

Example 2: Improving group relationships—games and exercises (tools) to help members get to know each other better, improve role clarity
Variety of examples, such as outward bound wilderness experiences, trips, and games

Team training interventions comprise another broad intervention category that tries to train the team or individual members to develop teamwork skills, thereby making the group more effective (Day, Gronn, & Salas, 2004). Team training has been widely applied in the military and commercial aviation to train small teams to improve team effectiveness (Kozlowski & Ilgen, 2006), but other fields like hotel management, manufacturing, transit authorities, medical, nursing and sports teams have been studied (Salas, Cannon-Bowers, Rhodenizer, & Bowers, 1999).

Team building is an action research process that identifies areas of group dysfunction and then provides interventions to overcome them. An associated and popular form of team-building is the use of surveys to characterize the personality or strengths or natural roles of team members which are then fed back and discussed by the group. Team building could be viewed as a form of reflective practice.

Group members become more effective in communication, coordination, and anticipating each other's behaviors and reactions (Day et al., 2004; Cooke, Kiekel, Salas, Stout, Bowers, and Cannon-Bowers, 2003).

There is significant research-based evidence for cross training and simulation-based training to improve effectiveness.
Salas et al. (1999) reported mixed results for the effects of team building.

Intervention methods specifically addressing role clarity seemed to have a positive effect on performance, whereas interventions addressing interpersonal relationships, goal setting, and problem solving were just as likely to decrease as increase performance. Weak, inconclusive, inconsistent and conflicting results make evaluating the effects of team building difficult (Kozlowski & Ilgen, 2006).

Hackman and Wageman (2005) commented that "Although interventions that address members' relationships and interaction can be quite engaging and do affect members' attitudes, they do not reliably improve team performance" (p. 274).

4. Group process: Enhance collaboration and interaction patterns, since each group member knows what information the other members need and how to coordinate tasks better.

Helps if done early in the group process (Polzer et al., 2002).
3. Group characteristics: Depends on group size.

2. Group task: Relevant to all tasks.

Valuable if it occurs early in the group process but can be done at any time.

Intended to smooth the way for generative and transformative learning processes.

3. Group characteristics: Expansion of member skills and knowledge, role clarity.

4. Group process: Collaborative interaction patterns, development of transactive memory (who to rely on when problems arise) and interpersonal congruence (members seeing each other similarly).

5. Social & Experiences Outcomes: Psychological collectivism, group collective identification, cohesiveness, role clarity, psychological safety, interpersonal congruence, development of norms and ground rules, coordination.

Purpose: Adaptive learning

Example 1: Encourage members to review the group process to determine what is working well and where they can improve; valuable at any stage of group.

Example 2: Reflective Methods (process) (West; 1996) have their foundation in Argyris & Schön's (1978) concept of Model II learning and Schein's concept of process consultation (Schein, 1969). Generally, a facilitator guides members through discussions of how well they are working together.

Example 3: Appreciative Inquiry (process) (Bushe, 2001) is a form of action research that creates new images aimed at developmental change. At the group level, it involves asking group members about their best team experiences. These are discussed within the group to create new, generative ideas or images that promote change. Essentially, it focuses on what gives life to a system when it is at its best as a way of understanding and heightening positive potential. Rather than criticism and diagnosis, AI encourages discovery and innovation based on members' strengths and opportunities open to the group.

Reflection is the process of stepping back from the group task to examine the group's process (i.e., process analysis; Argyris & Schon, 1978). One such method is Appreciative Inquiry (AI; Bushe & Kassam, 2005). Bushe and Coetzer (1995) found that an AI intervention significantly increased member satisfaction and group outcomes relative to a placebo, as did task oriented team building. Bushe (2001) ("meaning making in teams") suggested that the AI intervention is most useful with newly formed groups and can also be valuable with mature groups.

Reflective techniques can also be valuable at the end of a group's life as members focus on what was accomplished and capture what they learned that could be valuable to the group or the individual members in the future (Wageman & Hackman, 2005). Edmundson, Bohmer, and Pisano (2001) showed that cardiac surgery teams attempting to implement new technology-based surgery routines promoted shared meaning and process improvement through reflective practices.

Bushe & Coetzer (1995) compared AI team interventions with traditional task-oriented team development and lectures about group processes and performance. This lab study with undergraduates participated in four-person teams during 13 weeks. Pre-and post surveys measured group process and outcome perceptions. Grades were the measure of performance. Groups receiving the AI and task-focused team building had significantly higher results on the perceptual and grade measures of performance. Teams receiving the task-focused intervention had higher grades than those receiving the AI intervention.

Bushe & Kassam (2005) examined the effects of AI in 20 cases of social system change. They found transformational change in 35% of the cases. The authors suggested that transformational change is likely when the AI intervention focuses on how people think rather than what they do and when it focuses on supporting self-organizing change processes that stem from new ideas.

1. Individual and 3. Group Characteristics: Members are open to feedback and learning.

4. Group process: Facilitator leads discussion.

Members give each other feedback, practice honesty and trust, and learn to apply this behavior to their group work.

6. Feedback loop: Reflection on positive group processes and member contributions. Recognition of how opportunities and appreciation of members' contributions lead to change. Focus on positive atmosphere, encouraging new behaviors, and building on new ideas and opportunities.

Social experience: Captures learning, reinforces collectivism, norms, and shared goals

1. Member Characteristics: Learning from positive experiences, openness to opportunities and innovation, avoiding criticism and negative emotions.

Table 1. Group Interventions, Levers Affected, and Changes in Process and Outcomes

Applying Theory and Research to Assess Group Needs and Outcomes

Table 2 below outlines elements of diagnosing, implementing, and evaluating group interventions. Specifically, facilitators diagnose needs, set goals for change, select intervention methods (tools, tactics, and/or processes), and evaluate outcomes to determine if the intended (and unintended) changes occurred. Figure 1 can be a guide for determining variables to assess and targets for intervention. For instance, facilitators assess needs by collecting information about the group's purpose, progress,

situation, and characteristics of the leader, members, and the group as a whole (e.g., the ability of members to adapt routine interactions to changing conditions).

- *Facilitators can collect data to track and improve the effects of interventions as they are implemented.*

Type	Area	Description
Needs Assessment	Group Purpose, Progress, Group Process, Situational Conditions, Characteristics of the Leader, Members, and the Group as a Whole	Clarify group purpose (e.g., production, decision making, problem solving, management oversight). Identify what life cycle stage the group is in. Use diagnosis or assessment tool to identify needs and the current stage of the group regarding the key variables. Identify key variables that need to be enhanced. Measure knowledge, skills, and personalities of the group members to understand group composition and how members are likely to react to each other.
Goal Setting	Target behavior	Identify the target of the intervention from Figure 1 indicating the variables to be changed and the outcomes expected, based on: - a specific problem needing to be addressed - a learning type to be promoted - a task that needs to be structured - the extent to which process losses need to be decreased and process gains increased
Choose Variables to Change	Tools, Tactics, and/or Process Focus	Choose tools, tactics, and/or processes, such as those in Table 1, with respect to: - the group's need of enhancing specific key variables compared with the key variables addressed in this intervention method - the literature (theories and research) about alternative methods (such as the citations provided in Table 1) - whether the necessary key variables are present to perform the intervention, the likely and intended effect of modifying key variables, and the variables that may enhance or limit the effects of the intervention - the chosen intervention method in relation to the life cycle stage of the group - the intervention method in relation to the problem type, learning type that needs to be addressed, and group task
Pre-measure	Key Variables	Set specific baseline measurements of key variables from Figure 1 that are targeted by the intervention
Act	Implement Intervention	Implement the intervention
Post- measures	Key Variables	Measure the key outcomes variables to determine the impact of the intervention; measure the effectiveness of the group to compare to other groups, where other interventions have been made; over time, repeat measurements of the key variables to determine the lasting effects of the intervention and the possible need for actions to boost the effects of the intervention or for additional interventions

Table 2. A Guideline for Diagnosing, Implementing, and Evaluating Group Interventions

Intervention Research Directions

Facilitators can collect data to track and improve the effects of interventions as they are implemented. For instance, facilitators can use qualitative methods (e.g., members perceptions of events and their reactions) as well as quantitative indexes of key behaviors that are relevant to group process (e.g., attendance and participation at meetings, alternatives generated, conflict emergence and resolution) and outcomes (e.g., meeting deadlines, achieving consensus, stakeholders' ratings of the group's product). Needs assessment measures can be compared to similar measures after the intervention. The facilitator can compare these results to similar data collected from other groups that did not experience the intervention. Facilitators can also test basic theories about interventions, for instance, the notion that having members explain their backgrounds and areas of expertise early in the group process generates interpersonal congruence (group members seeing each other in the same way) and this improves the later work of the group (Polzer et al., 2002).

Conclusion

We have presented a model that facilitators can think about when they are designing, implementing or assessing interventions with their groups. We provided examples of interventions and related literature in Table 1 and methods for diagnosing, implementing, and evaluating group interventions in Table 2. We encourage group facilitators to review intervention literature that they believe will be worthwhile and use this knowledge to set goals, implement interventions, and evaluate the effects of their interventions. As facilitators share their experiences and research findings with other facilitators, they will expand the foundation of knowledge available to guide their practice.

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Evaluating complex interventions is complicated. The Medical Research Council's evaluation framework (2000) brought welcome clarity to the task. Now the council has updated its guidance. As experience of evaluating complex interventions has accumulated since the 2000 framework was published, interest in the methodology has also grown. Number of groups or organisational levels targeted by the intervention. Number and variability of outcomes. Degree of flexibility or tailoring of the intervention permitted. How these characteristics are dealt with will depend on the aims of the evaluation. Evaluating Group Interventions: A Framework for Diagnosing, Implementing, and Evaluating Group Interventions. Group Facilitation: A Research and Applications Journal (9). 2. Defining Group Facilitation • Facilitation comes from the Latin word "facilis", which means easy or easily done (it stems from fa'cere, to do or make) • Originally the word had a broad meaning, suggesting that facilitation is making things easier for someone • Schwarz (2002, p. 5) defined group facilitation as "a process in which a person whose selection is acceptable to all members. A facilitator may start with a diagnosis of the group situation in relation to its agreed purpose and then choose an intervention. Facilitation may include one or more interventions (Schwarz, 2002). Understanding, developing and evaluating complex. interventions is essential for improving health and. healthcare. Ten years ago, the Medical Research Council. (MRC) published its highly influential framework for. developing and evaluating interventions that 'are built. up from a number of components, which may act both. independently and inter-dependently'[[1], page 2]. The.