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# Group dynamic processes in email groups

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**ABSTRACT** Discussion is given on the relevance of group dynamic processes in promoting decision-making in email discussion groups. General theories on social facilitation and social loafing are considered in the context of email groups, as well as the applicability of psychodynamic and interaction-based models. It is argued that such theories may indeed provide insight into email group interactions, but that communication limitations may severely hinder the effectiveness, and possibly the natural evolution, of email-based groups. Based on the various theoretical perspectives on group dynamics, some general recommendations are provided on promoting effective email groups, which include the set-up of communication and decision protocols, the cogent use of a group facilitator, and where possible, the supplementary use of face-to-face interactions.

**KEYWORDS:** *email groups, group dynamics, interaction model, psychodynamic model*

## Introduction

With the advent of information and communication technologies, there is increasing dependence on group discussion and decision-making in which email, rather than face-to-face, interactions are involved. The benefits of such electronic groups include: (i) logistical convenience, particularly if the group members are based in disparate locations such as in distance-learning programmes, (ii) a communication method in which it is possible for all participants to express opinions or ideas, and (iii) the automatic documentation of member responses for later contemplation, evaluation or reflection. However, email communication may lead to potential problems in group discussions owing to, for example, incoherent dialogue from one member to the next, and ambiguities in the interpretation of written material, particularly in the absence of any immediate and direct clarification of issues. Although much consideration has been given to group processes in educational contexts (see e.g. Jaques, 2001), this has been

mainly confined to conventional face-to-face interactions. An understanding of such group dynamics has led to considerable insights into issues of group formation and cohesion, leadership and decision-making. The question then arises as to whether or not an understanding of group dynamics is equally applicable to those groups established around electronic communication media.

In the following sections, specific consideration will be given to the value of an understanding of group dynamics in promoting effective discussion and decision-making in email groups. A comparison of the nature of email and face-to-face groups will first be presented. Some key theories in group dynamics will then be considered, and the potential relevance and implications of these theories to email groups considered.

## **The nature of the group**

For both face-to-face and email discussion groups, in which a group decision or outcome is sought, the following qualities are expected to exist: (i) group members share common aims, goals or objectives, (ii) group members openly perceive themselves as being a group, and (iii) group members expect to interact to reach an effective decision. Even with such a general description of a group, distinct differences between email and face-to-face groups may arise, such as the effective clarification of shared goals, motivations of members towards the group situation, and the nature and frequency of interactions. In particular, it may not always be possible to coordinate email groups such that members are interacting with each other at the same time, as is implicit of face-to-face interactions. In other words, the feedback mechanisms of the email groups are likely to be less effective, or at least delayed, which may ultimately lead to the poor evaluation of ideas owing to limitations in criticism and debate, or affirmation and support. Even if feedback delay issues in email groups could be overcome, the expressiveness of a member through a written medium may be rather different than through verbal and non-verbal means. It may be unlikely, for example, that group members fully gauge the conviction for an argument, or the emphasis of a particular aspect of an argument, in the absence of verbal (e.g. tone, pauses, or inflections in the voice) and non-verbal (e.g. facial expressions, body posture) cues. An absence of such cues may also limit the extent to which members become emotionally involved, or socially motivated, in the group task. This in turn could influence the level of information processing, in that members may become less likely to be deeply engrossed in the discussions in the absence of such emotional involvement.

Given the shared qualities of the groups mentioned above, and the fact that effective group work is often needed to reach a decision which is

mutually supported by all group members, then one may expect group dynamic processes to be relevant to email groups. Indeed, some models of group dynamics do implicitly account for environmental, communicatory and socio-emotional factors (see discussions below), which could principally account for the differences between email and face-to-face groups. Thus, at least, an understanding of group dynamics is expected to give insight on why elements such as delayed feedback, or a lack of human reciprocity, may hinder the decision-making process. Subsequently, the application of group dynamics theories may help in the set-up of compensatory methods for supporting potential pitfalls in email groups. A somewhat negative perspective upon the relative effectiveness of email discussion groups is being implied here, and this in part is due to personal experiences in a study carried out at the Institute of Education, University of London (unpublished work). In particular, problems in communication flow and full member involvement were apparent with the email groups, and decisions could not be reached after three weeks of email interactions, whereas the groups were able to do so after approximately 15 minutes of face-to-face interactions. Similar observations were made by Barile and Durso (2002) on computer-mediated communication in collaborative writing. However, it is important to note that other group circumstances, task objectives and any pre-existing relationships may lead to highly effective work or outcomes in email groups, particularly if group involvement is strongly in the personal interest of the members (see e.g. Huws et al., 2001).

## **Group dynamic processes**

In any face-to-face situation, social influences arise whereby attitudes and behaviours are affected by the presence, or implied presence, of others. Social norms may then arise which help to define the group, and in some cases influence the compliance or even conformance of members, as demonstrated by the classic experiments of Asch (1956) and Milgram (1974). In the context of discussion groups, such influences may help to maintain group unity and focus, as well as define implicit protocols for interaction. By definition, group decision-making needs to involve a level of conformance. Some research evidence suggests that for cognitive tasks, conformance is better achieved with an optimum group size of approximately three to five individuals (Stang, 1976). This is possibly related to the level of interaction and involvement of individual members, as well as to an individual's perception that their opinion or beliefs are being objectively validated in the presence of a few other group members. Conformity is greatly reduced if group unanimity on opinions, beliefs or intermediate

decisions in a discussion cannot be established (Allen, 1975). In the case of email groups, poor continuity in discussions, which do not follow from the previous responses, questions or concerns, or in which there is poor acknowledgement of a raised issue by all group members, could yield the perception of a lack of unanimity. This could lead to a breakdown in conformity or convergence towards a decision. Likewise, the nature of feedback, with a lack of verbal and non-verbal cues, could seriously challenge an individual's affirmation of ideas.

The effect of the group on the individual may also be of either a facilitatory or inhibitory nature. Social facilitation could arise, for example, through drives which are instinctively aroused by the presence of others (Zajonc, 1965), through apprehensions of evaluation by others (Cottrell, 1972), or through a greater self-awareness and thus a concern to present the ideal-self (Carver and Scheier, 1981) or the best possible impression (Bond, 1982); see the discussions of Hogg and Vaughan (1998). Such possible antecedents of social facilitation could of course be of different significance under email and face-to-face group situations. For example, an individual may be less self-aware in an email interaction, and feel less apprehension due to any unexpected possibility of evaluation, and thus perhaps be less socially motivated towards involvement in the discussions. Social loafing, on the other hand, describes the situation when there is a reduction in an individual's effort when working in a group rather than working alone. In other words, social loafing is the reduction in the commitment, enthusiasm and motivation for a task in a group situation. Reasons for loafing may again have an evaluation-apprehension explanation, but in which excess apprehension is debilitating, rather than stimulating, to personal motivation. In other circumstances, loafing may arise from a perception of output equity, i.e. the belief that everyone else in the group is loafing, so one loafs as well. In a similar way, there may be a perception of low group standards, and thus a reduction in personal standards. However, loafing may be alleviated under circumstances in which there is: (i) personal accountability and identification, i.e. role differentiation in which an individual perceives a specific role in the group, such as co-ordinator, evaluator or technical expert, (ii) genuine personal interest in the task, and thus intrinsic or curiosity-driven motivation, and (iii) frequent inter-group comparisons as an objective evaluation of group standards. Furthermore, factors such as personal or social attraction (i.e. a liking of other group members because of common group membership), mutual positive support, and perceived inter-personal dependence (i.e. a need for other members to achieve personal goals), may lead to improved group cohesion. This could in turn produce a lower likelihood of loafing or indeed a higher likelihood of social facilitation.

In the context of email discussion groups, in which limited communication cues may exist, aspects of output equity, group standards, or reciprocity on personal and social attraction, may be difficult to gauge. Of course, it is possible that some group members in this circumstance could idealise the social situation and overestimate the standards and efforts of others. Nevertheless, the mutual support which sometimes arises in groups is unlikely to be as influential or convincing in an email group. For example, the need for the emotional support of a group member may not be recognized in the absence of certain visual, non-verbal cues, and thus possibly poor empathic accuracy under these circumstances (Ickes, 1997). In other words, different levels of social facilitation of the group members may not be effectively gauged, unconsciously or otherwise. This in turn could prevent compensatory efforts through, for example, emotional support and tension release, or indeed, the raising of group standards through the high motivation of certain members. Even if the need for such support or compensation is recognized, the effectiveness of its delivery through a written medium may be questionable. This then leads to issues of member roles in effective group work, and the possible psychodynamic aspects of member interactions; see discussions later in the text.

Consideration is also needed on the rules that relate individual opinions to the final group decision. Various social decision schemes may exist, such as the unanimity rule, majority wins rule and truth wins rule. As stated by Hogg and Vaughan (1998: 305):

decisions can sometimes be quite accurately predicted from the pre-discussion distribution of opinions in the group and from the decision-making rule that prevails in the group at that time.

The prevalent rule will, of course, be situation dependent, and may also be established through the social norms of the group. Thus poor frequency, continuity and coherence of communications may lead to vague and inconsistent perceptions of how a decision is to be adopted. Furthermore, such communication problems may influence the quality of brainstorming and information recall (i.e. group memory) in addressing and evaluating the issues pertaining to the task. However, interferences and distractions from other group members in a face-to-face situation could also lead to lower creativity and productivity in idea generation, i.e. a process referred to as production blocking (Paulus et al., 1993). Indeed, Stroebe and Diehl (1994) suggest that production blocking may in fact be the main obstacle in idea generation in groups, and recommend the use of email-based brainstorming sessions. However, such an approach assumes that the effective initiation of a well-defined brainstorming session, and the subsequent collation of, and action on, ideas may be achieved. Separate ancillary tasks such as

brainstorming also necessitate a certain degree of group organization and coordination, which may be harder to implement in an email situation.

Much attention has been given to the application of psychodynamic theories to group situations (see e.g. Jaques, 2001; Morgan and Thomas, 1996). The basis of such approaches evolves from Bion's view that a group operates at two levels: the work group and the basic assumption group (Bion, 1961). The former involves carrying out specific tasks, and defines the 'overt and conscious purpose for the group's existence'. The second level involves the basic assumption group for the 'unconscious concern with intra-group tensions, relationships and emotions' (Morgan and Thomas, 1996). Unconscious processes may, of course, be present in some of the occurrences mentioned above, such as personal and social attraction, and production blocking. However, Bion extends these ideas to the group as a whole, i.e. the group as an entity upon which unconscious forces exist for the preservation, security and prosperity of the group. Bion has explicitly categorized the unconscious drives as those for: (i) obtaining security and protection, e.g. from a group leader, (ii) preserving itself through group equivalents of the fight-or-flight responses, e.g. by creating a scapegoat (fight) or distracting itself with harmless or irrelevant issues (flight), and (iii) maintaining hope within the group through mutual support and bonding. Such group forces may arise from individual defences, which through social identity and introjection, lead to equivalent group defences, e.g. denial, cynicism, intellectualization and out-group competition. Many group defences may arise from the individuals' primitive, infantile defences of splitting and projection (see e.g. Morgan and Thomas, 1996). Splitting involves the compartmentalization of the negative and positive aspects of oneself, others and experiences, such that the individual or group may either adopt highly negative or highly favourable images as a coping mechanism. Projection involves ascribing individual beliefs, values, emotive states or other subjective processes onto another individual or group, and thus is a means of not having to deal with these processes in oneself. Collective projection and splitting are then believed to significantly influence the actions, behaviours and decisions of the group itself. Such group defence mechanisms are not necessarily undesired, in that they may help the cohesion and identity of the group, and may serve in the interest of self-esteem of individual group members.

Are, then, such psychodynamic forces relevant to email groups? How prominent is the basic assumption group under situations where any triggers of unconscious forces are limited to written responses? The cues for association and transference of primitive unconscious forces are expected to be rather complex, in which, for example, emotive, situational, and environmental factors may exist. It is possible that such forces between

members may not be fully resolved owing to communicatory limitations, and thus an effective basic assumption group may not emerge. Likewise, the process of projective identification, in which a member adopts those beliefs or states being projected onto him/her, may be hindered, thus possibly influencing the nature of the relationships, and even role identity, within the group. Psychodynamic theories, therefore, may help to explain aspects of group cohesion, identity, defences and role differentiation, and subsequently differences in the nature of email and face-to-face groups. Psychodynamic processes do not cease to exist in the absence of face-to-face interactions, but the degree and nature of unconscious, intra-psychic interactions are expected to be different.

The issue of roles in groups has also been considered by Bales (1970). Here, the emphasis has been on the interpersonal behaviours between group members rather than unconscious processes. Such interactions are postulated to fall into categories describing socio-emotional and task related aspects. Within these categories, specific bi-polar behaviours are considered, such as giving friendship/being unfriendly, giving information/seeking information, providing opinion or evaluation/asking questions. Problems in the group, such as communication, control, tension release and decision-making, are then deemed to arise when there is poor accommodation of, or synergy between, the behaviours of members. Functional groups are believed to evolve through progression through the task communication, evaluation and decision-making phases. Interestingly though, overall behavioural profiles for various discussion groups are indicated by Bales to be relatively consistent, although individual profiles may vary widely. This suggests that people may adopt different roles in different groups, but that there may exist a natural tendency towards groups with a similar overall behavioural profile. Furthermore, Bales' work indicates the importance of both task and the socio-emotional aspects of effective group work. What implications, then, does this have on email groups? Perhaps without clear verbal and non-verbal behavioural indicators, the effective interactions which overcome potential problems of communication, evaluation, control, tension, group integration and, subsequently, decision-making cannot be achieved. Likewise, the role of individuals could again be vaguely defined, leading to process inefficiencies, and indeed to a lack of group maintenance roles. However, if there is a human tendency towards certain behavioural profiles in groups, and if this profile cannot be perceived or gauged by members (as may be the case in some email interactions), then what influence will this have on motivation for group work? The interaction model of Bales may provide insight into some of the potential pitfalls of non-face-to-face groups, but may not fully explain how roles arise in those groups which are effective nevertheless.



Given the various theoretical perspectives on group dynamic processes, the following general recommendations for promoting effective email-based group work are suggested:

1. The explicit identification of group goals, and individual responsibilities and accountability at the onset of the group discussions, as well as the use of explicit communication and decision protocols. Protocols may promote group discussions through effective mechanisms for clarification, evaluation and question-response actions, as well as encourage group members to interact over matters which may be causing personal tension.
2. The use of a facilitator, i.e. an electronic tutor, for monitoring and supporting group maintenance roles, such as the employment of communication protocols, and highlighting both social and task reflexivity within the group. Such a facilitator could also convey inter-group comparisons, and thus provide the group with an objective means for self-evaluation. Tutors could employ sociograms to identify communication networks, cliques and attraction or antagonism between members within the group.
3. The use of real-time chat-room style interactions during a specified period of the day so as to promote free or casual discussion, and immediate feedback, progression, elaboration or query on member comments.
4. Where possible, it would be beneficial to supplement email discussion groups with conventional face-to-face meetings, which may help to further promote group identity, task objectives and role differentiation, help in the resolution of any communication issues and address unconscious group issues. In a similar way, it may be helpful to establish the group through face-to-face pre-meetings before moving to an email-based communication medium.

## Conclusions

Where people interact in discussions in order to come to some mutual decision, it is argued that general facilitating, inhibiting and decision-making processes, individual psychodynamic processes, and even perhaps human inclinations towards a natural group behaviour profile, are in operation irrespective of the communication medium present. Indeed, in the above discussions, group theories have been used to explain some of the potential problems of email groups. The absence of certain communication methods, such as non-verbal cues, as well as delayed or incoherent discussions, could severely hinder the quality of interactions, and subsequently

the task and social-emotional related qualities of the group. An understanding of group dynamic theories could, however, help in the facilitation, organization and support of such groups. For example, communication protocols could be defined, task and support responsibilities explicitly identified, and tutors made aware of some of the special problems of email groups. However, some implications here are that any natural evolution of a group (see e.g. Tuckman (1965) model of group formation) can be mimicked through careful facilitation and explicit member awareness of the group processes, and that effective member roles can be explicitly identified rather than implicitly emerging from the social interactions. Further research is needed in support of such propositions.

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