# THE CATTALYSTIC FUNCTION OF LEADERSHIP IN EFFICIENT GROUP FUNCTIONING

S.E. Terblanché<sup>1</sup> and G.H. Düvel<sup>2</sup>

## **ABSTRACT**

The purpose of the study was to test the hypothesis that group efficiency is a function of group internal and external factors, which in turn can be mobilised through effective leadership. For this purpose seven commercial farmer study groups were studied.

Significant correlations were found between the majority of group dynamic forces and group efficiency, implying that the groups, which are highly efficient, are superior regarding the intensity of the majority of all group dynamic forces. Leadership was found to be decisive in changing or improving the group dynamic forces. The more efficient group leaders were found to be more competent and revealed a greater task orientation. Compared to the less efficient groups, the better functioning groups were characterised by a higher degree of shared leadership. The bigger involvement in leadership functions seems to increase the competence without any loss in popularity.

### 1. INTRODUCTION

Agriculture in the world has reached a paradigm of glut, which is characterized by surplus productions of certain crops and a domination of resource rich farmers in agriculture. The effect of this is that the resource-rich farmers dominate prices and markets while the farmers who are farming on smallholdings cannot compete with them. In the process they become more and more marginalised and are virtually forced out of agriculture. They migrate to towns and cities looking for alternative employment, which in most cases is not available. Ultimately even worse poverty conditions awaits them.

The provision of affordable food and fibre for the inhabitants of South and southern Africa as well as the creation of a viable future for all farmers and farm workers are some of the major challenges facing agriculture in the next five to 10 years. The role that extension agencies and extensionists will have to play is extremely challenging, and in this context the group technique can become very important. The challenge to extensionists will be to assist farmers

Lowveld College of Agriculture, Private Bag X11283, Nelspruit 1200.

<sup>&</sup>lt;sup>2</sup> South African Institute for Agricultural Extension, University of Pretoria, Pretoria 0002.

to understand their situation, assist them in organising themselves into small groups, help them to choose suitable leaders and train them to work together to take joint and collective decisions to achieve common goals.

Over the years the following three main types of groups have evolved on the South African scene with distinctly different function, viz.

- (a) The study- or research group. The main function is the usually specific study or research function, after the completion of which it usually disbands.
- (b) The study group as target audience of extension. This means that the group's main purpose is to enhance the knowledge and consequent farming efficiency of its members.
- (c) The study group as development group. What characterises this group is that its purpose and responsibility lie beyond the group and invariably it has promotional goals aimed at and in the interest of the larger community.

All the groups have important functions in agricultural and rural development. However, to have the necessary influence and impact they have to function efficiently.

### 2. TOWARDS A THEORETICAL BASE OF GROUP FUNCTIONING

The behaviour model developed by Lewin (1951) is appropriate for both individuals and groups. In the group context behaviour (B) or the group functioning is seen as a function (f) of the situation (S) existing at a specific point in time. The situation (S) is represented by the group (Gp) and the environment (E), which are in interaction with one another. This functional inter-dependence can be formulated as follows:

$$B = f(S)$$

$$= f(Gp,E)$$

The interaction between individual group members leads to the evolvement of forces within the group, known as the internal dynamic factors or forces (ID). The group, however, does not function in isolation but within a bigger environment, which has an influence on it. These forces exerted from outside the group are known as external dynamic forces (ED) (Beal *et al.*, 1969). The

behaviour (B) or group functioning (GF) can therefore be regarded as a function of the internal (ID) and external (ED) dynamic forces namely:

$$GF = f(ID. ED)$$

Stogdill (1974) regard leadership (L) to be a function (f) of the given situation (S), which in turn can be equated with the totality of internal and external dynamic forces. This then leads to the conclusion that, if leadership is the means or instrument of mobilising, the internal and external dynamic forces, then group functioning (GF), being a function (f) of leadership (L), can be formulated as follows:

$$GF = f(L) = f(ID. ED)$$

This theoretical exposition therefore leads to the assumption that group efficiency is a function of leadership, since it is the direct means of intervention or of influencing the internal and external dynamic forces.

## 3. RESEARCH PROCEDURE

Study groups that had been in existence for at least two years were selected and involved in this research. This involved seven commercial farmer study groups with a total membership of 68. The assessment and measurement of group efficiency was based on subjective ratings by a number of extension and senior extension personnel who had an intimate knowledge of the various groups regarding their functioning and achievements. In all cases where discrepancies emerged between the various assessors, these were further discussed and evaluated until consensus had been reached. On the basis of group efficiency the different study groups were divided into three categories viz. high, medium and low (see Table 1). These categorisations were done for purposes of comparisons and consequently have a relative rather than absolute value.

The group dynamic factors (forces) measured and correlated with group efficiency were the following:

- Internal dynamic forces
  - Physical and psychological atmosphere
  - Group participation
  - Communication patterns

Table 1: The categorisation of seven study groups into categories of efficiency

Study groups (with allocated group number)			nber of dents per	Mean efficiency assessment (20 points scale)		Efficiency: rank order	
per efficiency		Study	Category	Group	Category	Talik order	
catego	<b>y</b>	group					
Low:							
Group	2	9		9,3		6	
Group	7	11	20	8,5	8,9	7	
Medium:							
Group	3	13		10,3		5	
Group	5	13	26	11,5	10,9	4	
High:							
Group	1	5		13,6		3	
Group	4	9		15,5		1	
Group	6	8	22	15,5	14,9	1	

- Role definition
- Standards or norms
- Cohesiveness (we feeling)
- Group size
- Techniques
- Objectives
- Evaluation procedures
- External dynamic forces
  - multiple group membership
  - mother organisations

In the majority of case these factors were not measured holistically, but rather in terms of their separate items or components.

# 4. RESULTS

Significant and highly significant correlations were found between the majority of group dynamic forces (or aspects thereof) and group efficiency. This points to a close inter-dependency between the various group dynamic forces. The implication of this is that the groups, which are highly efficient, also tend to be more superior regarding the level of all the group dynamic

forces. The more efficient groups, for example, are characterized by the fact that the venues for meetings are rotated monthly and that they tend to spend more time on study group activities. These findings regarding the physical atmosphere are shown in Figure 1.

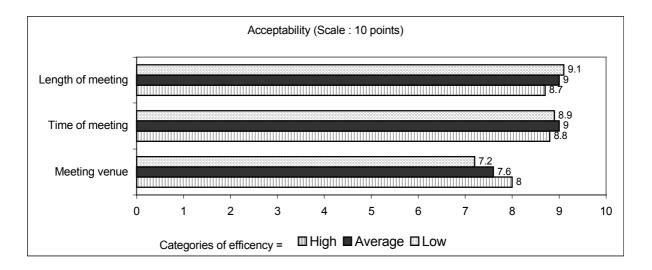


Figure 1: The average acceptability of some aspects of study group meetings by respondents in groups of different efficiencies

The correlation between group efficiency and the acceptability of venues for meetings is significant (r = 0, 235; p = 0.05), which means that members of the more efficient groups tend to perceive their venue for monthly meetings more positively.

The psychological atmosphere is similarly related to group efficiency (Figure 2), which implies that the more efficient groups tend to help one another more to feel at home in the group.

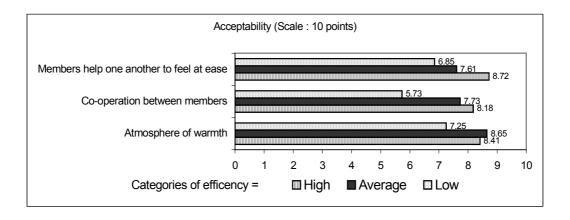


Figure 2: The average assessment of the acceptability of group atmosphere

The higher group efficiency is also associated with better collaboration between members, as is reflected in a highly significant correlation (r = 0.33, p = 0.005). There is also a slight tendency for the more efficient groups to be more satisfied with the prevailing atmosphere of warmth in their groups.

A larger percentage of members in the more efficient groups are doing more than what is expected of them; they attend meetings more regularly and tend to have a higher assessment of the usefulness of time spent on discussions at meetings.

As far as communication within the groups is concerned the situation also tends to be more favourable in the more efficient groups. As Figure 3 indicates the members are more aware of the efforts made to improve the communication and they also have a higher assessment of the level of intercommunication.

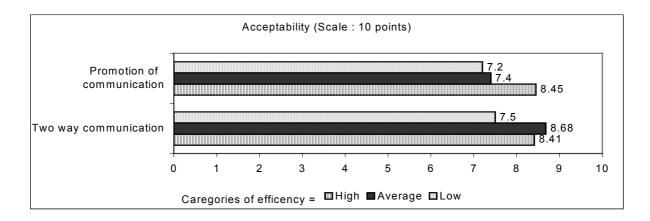


Figure 3: The average acceptability of group communication

Within the highly efficient groups there is a stronger we-feeling amongst groups members (cohesiveness); group members have a better knowledge at the role they need to play in the group (role definition).

The findings in Table 2 show that they make less use of experts to address them (r = 0.36; p = 0.002). Instead more tasks are given to group members to execute (r = 0.515; p = 0.0001). In both cases the correlations are highly significant and it is likely that this higher degree of involvement and participation contributes towards group functioning and the increase in knowledge and skills.

Table 2: Average number of times that groups in the three categories of efficiency make use of an expert or of a group member to address the group

Categories of efficiency	Addressed by an expert	Addressed by a group member
Low	6	1
Medium	4	1
High	2	6

Members of the more efficient groups tend to belong to more groups in the community and consequently have a greater degree of multiple group membership.

Table 3 investigates respondent's desirability for their study group to be linked to a mother organisation.

Table 3: Respondent's judgement with regard to the desirability for a study group to be linked to a mother organisation

	Respondents per category of efficiency								
Categories of	Low		Medium		High		Total		
desirability	Number	ımber % Number % Number %		Number	%				
	(n = 20)		(n = 26)		(n = 22)		(n = 68)		
Do not know	4	20	3	11	1	5	8	12	
Not desirable	4	20	1	4	2	9	7	10	
Desirable should link	12	60	22	85	19	86	53	78	

According to the findings in Table 3, 86 percent of the respondents in the category of high efficiency are in favour of linkages with a mother organisation in comparison with only 60 percent in the category of low efficiency. This seems to indicate that the more efficient groups are less inclined to see the study group activities to be isolated, but that they should function within the wider framework of Organised Agriculture.

With regard to leadership within the seven groups evidence was found that the most efficient groups tend to give more credit to the chairperson for the role he/she played in the performance of the group (Figure 4).

Members of the highly efficient groups tend to give a higher assessment to the role their leaders played in the performance of the group. This high

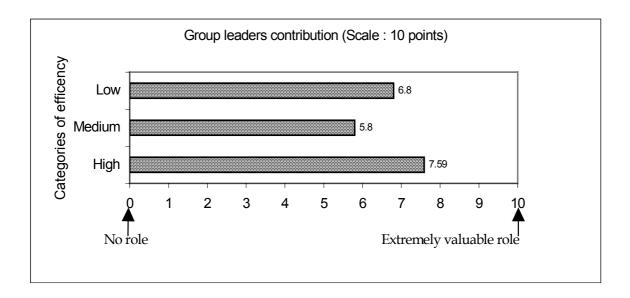


Figure 4: Contribution of group leaders to the successes of the group as perceived by group members

assessment (average assessment of 7.6) may be due to an actual bigger contribution or because group members are prepared to give more credit to their leaders. Probably both apply. Support of the higher contribution of the leaders in the high efficiency groups lies in the fact that, as Table 4 indicates, they are all rated by their group members to be the most competent in their respective groups. In contrast, those in less efficient groups give a significantly lower rank order. On the other hand, it is unlikely that, given the rotational leadership of especially the more efficient groups, that the currently serving chairpersons, are all necessarily the most competent in the groups. This gives credence to the notion that members of the highly efficient groups are prepared to give more credit or due credit to their leaders for their contributions.

Table 4: Capability of group leaders as perceived by their group members

	Av. assessment per group number and efficiency category							
Characteristics:	High			Medium			Low	
Characteristics.	1	4	6	3	5	2	7	
	(n=5)	(n=9)	(n=8)	(n=13)	(n=13)	(n=11)	(n=9)	
Average assessment of chairperson	8,60	8,66	7,55	7,2	7,6	8,36	7,4	
Order of rank for chairperson	1	1	1	4	5	1	3	

As far as popularity of group leaders is concerned there is, due to variations within the different categories, no clear relationship with group efficiency (Table 5).

Table 5: Popularity of group leaders as assessed by members of their groups

	Av. assessment per group in categories of efficiency							
Characteristics:	High			Med	ium	Low		
Characteristics.	1	4	6	3	5	2	7	
	(n=5)	(n=9)	(n=8)	(n=13)	(n=13)	(n=11)	(n=9)	
Average assessment of chairperson	6,60	8,22	8,25	7,0	7,9	8,54	7,0	
Order of rank for the chairperson	3	1	1	4	2	1	3	

These findings are not contrary to expectations in the sense that group effectiveness need not be a function of popularity, as long as the popularity is not below a certain minimum threshold value, where it detracts from group cohesion and solidarity.

Do the groups of varying efficiency differ in terms of general capability and popularity regarding all group members? These findings are summarised in Table 6.

Table 6: Average capability and popularity on the basis of mutual assessments of all group members in different categories of group efficiency

Category of efficiency	Group no		essment per oup	Average assessment per category		
efficiency	110	Capability	Popularity	Capability	Popularity	
High	1	7,96	7,56			
	4	7,00	6,75	7,2	7,08	
	6	6,70	6,95			
Average	3	6,60	6,26			
	5	7,50	7,04	7,1	6,65	
Low	2	6,60	6,59			
	7	6,30	5,97	6,5	6,28	

In the case of both the capability and popularity there is, judging by the average assessment per category, a clear tendency of a linear relationship with

group efficiency. This means that higher group efficiency tends to be related a higher level of capability and popularity. Again the higher level of capability and popularity may be the cause and/or result of more efficient group functioning.

As far as capability or competence is concerned, a higher level of capability can be expected to contribute towards better group functioning or efficiency. However, logically this would only be expected to come to fruition in a situation of shared leadership. Some evidence of this is found in Figure 5, illustrating the distribution of leadership functions and showing a tendency for a higher degree of shared leadership function among the more efficient groups.

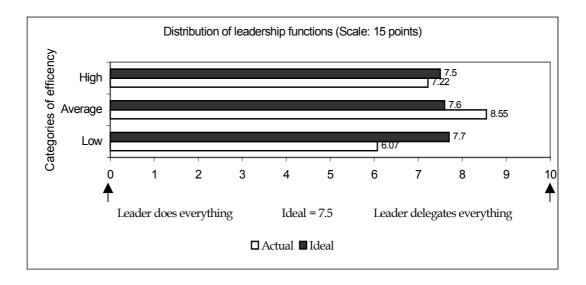


Figure 5: The actual and ideal situation with regard to the distribution of leadership functions

These findings seem to support the viewpoint of various researchers (Gibb, 1950; Beal *et al.*, 1969; Düvel, 1980; and Baron & Byrne, 1991) who emphasise the importance of shared leadership for effective group functioning.

Popularity, unlike capability, is not expected to be related to group functioning. The fact that there seems to be a relationship (see Table 6) could be a further indication of the higher popularity being a result rather than a cause of effective group functioning.

Table 7 gives some insight into leadership styles according to the managerial grid of Blake & Mouton (1978), which evaluates the relative orientation towards the task (t) and people (p).

Group leaders of the more efficient groups show a higher task orientation than leaders from the less efficient groups. In fact, the close correlation (r = 0.9) suggests that as the task orientation of group leaders increases, the group efficiency is also likely to increase. As far as people orientation is concerned, the tendency and correlation (r = -0.7) is the direct opposite, indicting that the more people-oriented the leadership style is, the less efficient the groups tend to be.

Table 7: Leadership styles of group leaders and groups according to the managerial grid of Blake and Mouton (1978)

		Mean assessment of					
Groups per efficie	ency	Group	leaders	Group members			
category		t-value	p-value	t-value	p-value		
High efficiency	1	7	6	5	5		
	4	6	4	5	5		
	6	5	6	5	5		
Medium efficiency	3	4	5	5	5		
·	5	4	6	5	5		
Low efficiency	2	3	8	1	9		
·	7	2	8	5	5		

The group members of the various groups do not differ significantly in terms of mean task- and people-orientation. This could suggest that the expectations of the groups included in this study are not all that different, and that an overall change of leadership style towards an increased task orientation will result in improved efficiency. In Group 2, which is exceptionally strong people oriented, a change in leadership style would have to be implemented in a sensitive and gradual manner.

# 5. CONCLUSION

The correlation between the various dynamic factors and group functioning or group efficiency indicates a close-inter-dependency and suggests that the strengthening of any one of these factors (forces) is likely to have a simultaneous positive effect on others and ultimately on group efficiency. In practice this means that the use a few effective techniques can have a significant positive effect on a variety of group dynamic factors and thus on group functioning. Relatively simple techniques that were found to have a significant effect are (a) rotation of venue meetings (b) setting aside of time for social activities and especially (c) the involvement of group members through

assigning special tasks to them and expecting them to report back to the group about their accomplishments.

This emphasises the key function of leadership. Although it is only one of numerous group dynamic forces, it is the one through which intervention of group functioning is possible. The findings show that leaders of the more efficient study groups tend to be judged more capable or competent by their group members, but there are clear indications that these assessments are not only the cause, but also the result of effective group functioning. A direct practical implication of these findings is that the involvement of group members in leadership functions can improve leadership and group functioning. Even popularity is bound to increase through shared leadership.

The strong positive correlation of group efficiency with the task-orientation of the group leader, and also the negative correlation with people-orientation, emphasises the improvement that can be made by leaders by becoming more task-oriented.

The fact that these relationships could be demonstrated with groups that varied minimally in terms of group efficiency, emphasises the validity of these findings. With more variation of group efficiency the results would probably have been more significant and convincing. There is nevertheless a necessity to verify these findings with different types of groups, and in especially in different cultural situations.

### **REFERENCES**

BARON, R.A. & BYRNE, D., 1991. *Social psychology: Understanding human interaction*. Simon and Schuster, Inc. Needem Heights, MA 02194.

BEAL, G.M., BOHLEN, J.M. & RAUDABAUGH, J.H., 1969. *Leadership and dynamic group action*. Iowa State University Press, Ames.

BLAKE, R.R. & MOUTON, J., 1978. The new managerial grid. Gulf Publishing Co. Houston, Texas.

DÜVEL, G.H., 1980. *Die Studiegroep*. Suid-Afrikaanse Instituut vir Landbouvoorligting. Univ. Pretoria.

GIBB, C.A., 1950. The sociometry of leadership in temporary groups. *Sociometry* (13).

LEWIN, K.C., 1951. Field theory in social science. Harper & Brothers, New York.

STOGDILL, R.M., 1974. *Handbook of leadership*. The Free Press, Macmillan publishing Co. Inc, New York.