

Community Leader Participation in the Extension Programme Decision-Making Process

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ABSTRAK

Penyelidikan ini mengkaji taraf penyertaan ketua masyarakat dalam proses membuat keputusan bagi program pengembangan, berdasarkan tanggapan pegawai pengembangan. Objektif kajian adalah untuk menentukan (1) sama ada taraf penyertaan berbeza mengikut jenis keputusan yang perlu dibuat bagi dua program yang berlainan, (2) sama ada taraf penyertaan berbeza mengikut langkah-langkah proses membuat keputusan, dan (3) bagaimana kaitan taraf penyertaan dengan sikap pegawai pengembangan terhadap penyertaan ketua masyarakat bagi tiap-tiap jenis program pengembangan. Penyelidikan ini mendapati (1) berlawanan dengan jangkaan, taraf penyertaan ketua masyarakat tidak berbeza bagi kedua-dua jenis program 'lebih teknikal' dan 'kurang teknikal', (2) taraf penyertaan berbeza mengikut langkah-langkah proses membuat keputusan. Ketua masyarakat paling kurang menyertai di langkah-langkah pemilihan alternatif dan perancangan tindakan. (3) ada kaitan positif di antara tanggapan pegawai pengembangan dengan taraf penyertaan ketua masyarakat, hanya bagi program 'kurang teknikal.'

ABSTRACT

This research studied participation levels of community leaders in the extension programme decision-making process, as perceived by extension staff. The objectives were to determine (1) if the perceived participation levels differed by tasks associated with two different types of programme decisions, (2) if the perceived participation levels varied by tasks associated with different steps of the decision-making process, and (3) how the perceived participation levels relate to extension staff's attitudes toward community leader participation, for each type of programme decision. This research found the following: (1) Contrary to expectation, the perceived participation levels of community leaders did not differ for both 'more technical' and 'less technical' programme decisions: (2) The perceived participation levels varied by the different decision-making steps. Community leaders were perceived to participate least at the choice of alternatives and the plan of action steps of decision making. (3) Only for 'less technical' programme decisions were attitudes of extension staff positively related to perceived community leader participation levels.

INTRODUCTION

Literature on adult education programme development emphasises the importance of adult learner participation in programme development. According to Boyle (1981), Forest (1976),

and Van de Ven (1980), adult learner participation helps (1) ensure acceptance and support of the resulting programs; (2) make more accurate decisions about adult learners' needs, interests, and problems; and (3) inform and

prepare adult learners for active leadership roles in the future.

Realising the importance of participation in this process, extension organisations and staff have generally directed their efforts towards increasing adult learner participation in programme decision making. Their efforts could be more successful if they had an increased understanding of factors influencing the level of adult learner participation. Among the factors often neglected by extension organisations, when involving clientele and leaders in the planning process, are the nature of decision tasks, and attitudes of extension staff guiding the participation. The decision tasks are associated with different types of programme decision and with different decision-making steps.

This research examined (1) the difference in FELDA community leader participation levels in two different types of programme decisions, as perceived by extension staff, (2) differences in participation levels in six identified decision-making steps, as perceived by FELDA extension staff, (3) relationships between the perceived community leader participation levels and extension staff attitudes toward community leader participation in decision making, for two different types of programme decisions.

Theory and Hypotheses

In adult education programme decision making, both adult educators and adult learners face different types of decision tasks. The decision tasks can be associated with the type of programme decisions (Maier 1963), and the tasks can be associated with the process of decision making which consists of several steps (Last 1972).

The literature has frequently described two categories of programmes dealing with different decision types. The first category requires relatively more technical information for decision making, such as a programme on agriculture production. Decisions associated with such a programme have been described as routine decisions by Delbecq (1967), high-quality decisions by Maier (1963), closed decisions by Jimmerson (1981), programmed decisions by Simon (1960), and computational decisions by Thompson (1957). The second programme category requires relatively less techni-

cal information for decision making, such as a programme on community development. Decisions associated with such a programme have been described as creative decisions by Delbecq, high-acceptance decisions by Maier, open decisions by Jimmerson, heuristic decisions by Simon, and judgmental decisions by Thompson.

The process of decision making involves different decision tasks at the different steps. The decision-making steps can be classified into two categories. Last (1972) suggested a category of steps requiring relatively more fact-oriented information, such as the identification of alternatives and evaluation of alternative steps. The other suggested category of steps requires relatively more value-oriented information, such as the identification of problem and choice of alternative steps.

According to the literature on group problem solving, the type of decision task could effect the group process, such as participation by group members in programme decision making. The group members will adjust their patterns of communication and roles according to the type of task (Delbecq 1967). Community leaders involved in group decision making, for example, tend to vary in their participation as they face different decision tasks.

Besides being affected by the type of decision task, community leader participation in programme decision making is related to extension staff attitudes toward adult learner participation. According to Katz and Kahn (1978), persons interacting in a role set, in an organisation, are involved in a cyclic process of role sending and role receiving. The role sender attitudes, expectations and perceptions are related to the role receiver behaviour. In an extension organisation, extension staff, guiding community leader participation in programme decision making, and community leaders participating in programme decision making, are involved in role sending and role receiving. Based on this role theory, community leaders behave or participate in response to extension staff attitudes, expectations and perceptions, and vice versa.

Literature on group dynamics suggests that group member participation in decision making could be influenced by the leader or

the staff guiding the participation. In a study of managerial leadership styles in problem-solving conferences, autocratic leadership style did not encourage group member participation (Delbecq 1965). Since a person's behaviour influences his or her attitude toward the behaviour (Fishbein and Ajzen 1975), a leader exhibiting autocratic leadership behaviour is likely to possess a less favourable attitude toward group member participation. Hence, extension staff with less favourable attitudes toward participation are not likely to encourage community leader participation in programme decision making.

The literature suggests (1) adult learners face different types of decision tasks during program decision making, (2) adult learner participation could differ as they face different decision tasks, and (3) a relationship possibly exists between attitudes of adult educators and the participation of adult learners in programme decision making. The research reported here is relative to four hypotheses derived from this literature.

- H1: Perceived community leader participation levels differ for two different programme decision types.
- H2: Perceived community leader participation level differs in each of the decision-making steps, during programme decision making.
- H3: The more positive the extension staff attitudes toward community leader participation in making 'more technical' programme decisions, the higher the perceived community leader participation levels.
- H4: The more positive the extension staff attitudes toward community leader participation in making 'less technical' programme decisions, the higher the perceived community leader participation levels.

MATERIALS AND METHODS

Study Setting, Sampling, and Procedure

Eighty-six FELDA scheme managers (extension staff) and 94 FELDA settler leaders (community leaders) constituted the study samples. These persons were selected as the study sample because they met the requirements needed for the study hypotheses. Monthly Settler Develop-

ment Committee (SDC) meetings chaired by scheme managers and attended by settler leaders represented the adult educator-adult learner programme decision-making setting. During these monthly meetings, the managers expect the settler leaders to participate in on-going programme decisions and learn decision-making skills, so that eventually a settler leader can take over the chairman role held by each manager at these meetings.

Furthermore, during these monthly meetings, managers and settler leaders have been involved in two broad decision categories – agriculture production-related and community development-related decisions. Decision making involving these categories represented the two types of programme decisions studied. These decisions were studied because they provided variation in the nature of information required to make decisions. Agriculture production-related decisions need relatively more technical information to arrive at solutions compared to community development-related decisions.

Using two sets of instruments, data were collected from managers and settler leaders. Self-administered questionnaires were used to collect data from managers. The managers provided data on their attitudes toward settler leader participation in the programme decision-making process, and perceived settler leader participation levels. Using interview schedules, data on actual participation levels were obtained from settler leaders. The data from settler leaders were used to validate the measurement of perceived participation levels.

Attitude Measurement

This study measured manager attitudes toward settler leader participation in the six rational steps of decision making identified by Cartwright and Zander (1960), Patton and Giffin (1973), and Phillips (1973). These steps also constituted Dewey's (1933) reflective thinking process steps, namely (1) identification of problem, (2) analysis of problem, (3) identification of alternatives, (4) evaluation of alternatives, (5) choice of alternative, and (6) development of plan of action.

Using the Likert five-point scale method manager attitudes were measured. Managers

indicated their levels of agreement toward statements of possible beliefs and intentions about settler leader participation in each of the six decision-making steps. Four items for each decision-making step gave a total of 24 items for an attitude scale.

Two 24-item scales were used to measure the managers' attitudes, one scale for each of the two programme decision types i.e. agriculture production-related and community development-related decisions. For each scale, the 24 items were selected from 42 pretested items. For each decision-making step one half of the items indicated a favourable or positive attitude, the other one half of the items indicated an unfavourable or negative attitude toward settler leader participation in the step.

Level of Participation

This study measured the perceived level of participation in the decision-making process in terms of a continuum, from a high to a low level of sharing of information, opinions and experiences that can influence the decision-making process. Two scales were developed for each of the two programme decision types.

The perceived participation levels were measured by the frequency with which settler leaders actually performed observable verbal communication (such as telling about experiences, explaining situations, providing opinions, and suggesting ideas), in the decision-making process, during the most recent meeting. Statements describing the verbal communication for each of the six identified decision-making steps were formulated. Using the Likert five-point scale method, four items developed for each step gave a total of 24 items for each scale.

Besides the perceived participation levels, settler leader self-reported participation levels were also measured using five-point Likert scales. Six items, representing the six decision-making steps, were selected from the 24-item scale used for measuring the perceived participation level. Two six-item scales were used to measure the self-reported participation level, one scale for each of the two programme decision types.

Reliability Test of Scales

To calculate the scale reliability coefficients, the Guttman Model (Guttman 1945) was used.

The model was chosen because the attitudes and participation levels were measured using composite scales of a simple sum of scores across items. Using this model, six reliability coefficient estimates were provided for each scale. According to Hull and Nie (1981) all estimates would underestimate the true reliability, and strategically one should pick the largest of the six coefficients computed since one could be sure that the true reliability would be higher. The reliability coefficients of the scales for the study are as shown in Table 1.

TABLE 1
Scale reliability coefficients

Scale	Reliability coefficient
Perceived level of participation in agriculture production-related decisions (24 items)	.922
Perceived level of participation in community development-related decisions (24 items)	.936
Attitude toward participation in agriculture production-related decisions (24 items)	.724
Attitude toward participation in community development-related decisions (24 items)	.798
Self-reported participation level in agriculture production-related decisions (6 items)	.764
Self-reported participation level in community development-related decisions (6 items)	.791

Data Analysis

Using the mean perceived settler leader participation level score for each of the two participation scales, the paired t-test was used to test the hypothesis of difference between the perceived settler leader participation levels for the two programme decision types. Analysis of

variance tested the difference in the perceived participation levels for the six decision-making steps. Pearson correlation was used to test the hypotheses on the relationships between managers' attitudes and the perceived settler leader participation levels, for each of the programme decision types.

RESULTS AND DISCUSSION

H1: Perceived Community Leader Participation Levels Differ for Two Different Programme Decision Types. Table 2 shows the means and standard deviations of perceived participation level and attitude scores. Table 3 shows the t values for the difference in the participation levels between the two programme decisions. The data did not support hypothesis 1. No significant difference was found between the mean perceived participation levels for the two programme decisions – agriculture production-related and community development-related decisions. The expectation that the mean perceived participation level for agriculture production-related decisions would differ from that for community development-related decisions was not supported. This study indicated that the nature of the decision tasks associated with the different programmes did not influence the perceived adult learner participation levels in programme decision making.

However, considering the 12.31 average number of years the settler leaders had been programme participants, the settler leaders did not show very high perceived participation levels in programme decision making for either type of programme decision.

The need for independence factor, proposed by Vroom (1960) might provide some explanation for the results that did not show higher participation level in community development-related decisions requiring less technical information, compared to agriculture production-related decisions requiring more technical information. Possibly the settler leaders had weak independence need and were little affected by the opportunity to participate.

Related to the need for independence are the settler leader expectations. The settler leaders might be expecting managers to play an equally important role in the decision-making

process for both programme decisions. Also, settler leaders might be expecting managers to assume more important roles in the decision-making process for both programme decisions. Possibly settler leaders believe that managers have a legitimate right to provide information during the SDC meetings, by virtue of the position the managers occupy. Also the managers were viewed as the acknowledged experts and capable of taking all the necessary factors into consideration during the decision-making process in the meeting.

TABLE 2
Means and standard deviations of attitude and participation level scores

Participation/Attitude	Mean	S.D.
Attitude toward an interactive role for agriculture production-related decisions (N = 85)	76.03 ^a	6.63
Perceived participation level for agriculture production-related decisions (N = 85)	73.04 ^a	10.89
Attitude toward an interactive role for community-related decisions (N = 85)	79.07 ^a	7.36
Perceived participation level for community-related decisions (N = 85)	73.82 ^a	11.49
Self-reported participation level for agriculture production-related decisions (N = 94)	22.32 ^b	3.18
Self-reported participation level for community-related decisions (N = 94)	24.52 ^b	2.83

^a Based on 24-item scale

^b Based on 6-item scale

Another possible reason is that settler leaders generally did not have the adequate skills and information for greater participation in decision making. This might especially be so in situations where settler leader educational

levels were low and where settler leaders lacked professional training.

TABLE 3
T-value for the difference in participation levels in programme decision making

Participation level	t	p
<i>Perceived level</i>		
Between agriculture production and community development-related decisions	-0.38	0.38
<i>Self-reported level</i>		
Between agriculture production and community development-related decisions	-6.57	0.00

Although managers perceived that settler leader participation for the two types of programme decisions did not differ, the self-reported participation levels differed. As shown in Table 2, the mean participation level in community development-related decisions was significantly higher than that for agriculture production-related decisions. This difference was found to be significant ($p < .01$, Table 3). The results indicated that the nature of the decision tasks associated with the different programmes did influence the perceived adult learner participation level in programme decision making. It is possible that settler leaders have relatively inadequate skills and information for participating in agriculture production-related decisions than in community development related decisions. However, conclusions were made based on analysis of perceived participation level data because the scales used to measure the perceived participation levels had higher reliability coefficients than those used to measure the self-reported participation levels.

H2: Perceived Community Leader Participation Level Differs in Each of the Decision-making Step during Programme Decision Making.

This hypothesis was tested using perceived participation levels in the six decision-making steps, for each of the two types of programme decisions — agriculture production-related and community development-related decisions. Data

in Tables 4 and 5 show significant differences in the perceived participation levels of settler leaders in the different decision-making steps for agriculture production-related and community development-related decisions, respectively ($p < .05$).

TABLE 4
ANOVA for perceived participation levels in decision-making steps for agriculture production-related decisions

Sources	SS	df	MS	F	p
Between people	1612.86	83	19.43		
Within people	1330.00	420	3.17		
Between measures	104.29	5	20.86	7.06	0.00
Residual	1225.71	415	2.95		
Total	2942.86	503	5.85		

TABLE 5
ANOVA for perceived adult learner participation levels in decision-making steps for community development-related decisions

Sources	SS	df	MS	F	p
Between people	1809.19	82	22.06		
Within people	1101.67	415	2.65		
Between measures	49.39	5	9.88	3.85	.00
Residual	1052.28	410	2.57		
Total	2910.86	497	5.86		

A Scheffe post hoc comparison between means test on the participation levels in the six decision-making steps for each programme decision found that the group mean for the choice of alternatives and the plan of action steps differ significantly ($p < .05$) from the mean for another group of steps — identification of alternatives and evaluation of alternatives.

The data in this study setting did not support the suggestion by Last (1972) that, in what he calls, fact-oriented decision-making steps, such as the identification of alternatives and evaluation of alternatives, the participation of adult learners would be less than in, what he

calls value-oriented steps, such as the identification of problem and choice of alternative steps. In this study, settler leaders participated least in the choice of alternatives and the plan of action steps, as shown in Table 6.

TABLE 6
Mean scores for manager's perceived participation levels in decision-making steps for agriculture production and community development-related decisions

Decision-making steps	Decision			
	Agriculture production		Community development	
	Mean	S.D.	Mean	S.D.
Identification of problem	12.23	2.54	12.77	2.33
Analysis of problem	12.42	2.73	12.33	2.39
Identification of alternatives	13.10	2.07	12.53	2.62
Evaluation of alternatives	11.98	2.61	12.18	2.77
Choice of alternatives	11.77	2.17	11.83	2.29
Plan of action	11.80	2.33	12.00	2.28

The difference in the nature of information required at the different steps involving different decision tasks did not provide an explanation. The results could possibly be due to the need for the independence factor as suggested by Vroom (1960). It could be argued that the settler leaders' need for independence in making decisions might still be low. Although settler leaders participated in all decision-making steps, the results suggested they still depended on managers in choosing the best alternatives to solve their problems. Another possible factor is the settler leaders' acknowledgement of managers' legitimate right to provide information and decide on the best alternative to solve their problems, by virtue of the position the managers occupy.

During the monthly meetings, it is likely that settler leaders are more eager to inform

the managers about their problems with the hope that the managers will solve the problems, than to decide on solutions. Associated with the solutions are the resources needed to plan for action. The power to decide on resource acquisition and allocation could possibly be in the hands of managers. This could reinforce the settler leaders to let the managers play more important roles in deciding on the best alternative to solve their problems, and in planning for action.

H3: The More Positive the Extension Staff Attitudes toward Community Leader Participation in Making 'More Technical' Programme Decisions, the Higher the Perceived Community Leader Participation Levels. Results of correlation analysis are presented in Table 4. For agriculture production-related decisions, the result shows no significant correlation between manager attitudes and the perceived participation levels of settler leaders in decision making. This indicates that manager attitudes did not seem to relate to the participation behaviour of settler leaders. The result indicated that the attitudes of managers were not good predictors of the settler leader participation levels, in situations where programme decisions required more technical and objective information to arrive at a solution.

According to the role episode model developed by Katz and Kahn (1978), the role senders expectations, including personal attitude and perception, could influence the role behaviour of the role receiver. In this study, the role senders' expectations were indicated by the managers' attitudes toward an interactive role or toward participation of settler leaders in the decision-making process for agriculture production-related decisions. The role behaviour was indicated by settler leaders participation as perceived by the managers, in the decision-making process for agriculture production-related decisions.

The results indicated that the role senders' expectations did not significantly influence the role behaviour of the role receivers. This could be due to some internal sources of motivation within the settler leaders that led them to take on a role behaviour that is not in accordance with the managers' expectations. According to Katz and Kahn (1978) each person

could be a 'self-sender', that is, a role sender to himself or herself. In this study, the role receiver had a conception of his or her position as a settler leader, and a set of attitudes and beliefs about what he or she should and should not do, with regards to participation in programme decision making. In other words, the settler leaders' own cognitions or expectations could contribute to the absence of correlation between the two variables. If this is so, then the managers' and settler leaders' expectations were not congruent. This, according to Katz and Kahn (1978), is called intersender role conflict. The role sent by settler leaders themselves was in conflict with that sent by the managers.

H4: The More Positive the Extension Staff Attitudes toward Community Leader Participation in Making 'Less Technical' Programme Decisions, the Higher the Perceived Community Leader Participation Levels.

Data in Table 7 show a significant positive correlation between manager attitudes and perceived participation levels when making community development-related decisions. The correlation coefficient of 0.24, although small, was statistically significant ($p < .01$).

TABLE 7

Relationships between perceived participation levels and attitudes toward community leader participation in programme decision making

Relationship	r	p
Attitudes and perceived participation levels for agriculture production-related decisions	.05	.32
Attitudes and perceived participation levels for community development related decisions	.24	.01
Overall attitudes and overall perceived participation levels	.14	.10

The low correlation value could possibly be due to other moderating variables affecting the relationship. Further data analysis according to the crop cultivated, showed that the type of crop cultivated had an influence on the relationship.

In situations where settler leaders cultivated oil-palm, all relationships had higher correlation coefficients (Table 8) than those reported in Table 7. The magnitude of the difference between the correlation coefficients was greater for community development-related than for agriculture production-related decisions. The r value for community development-related decisions was found to be higher ($r = .37$, Table 8) compared to that reported in Table 7 ($r = .24$). The r value for community development-related decisions value would more likely be higher with a greater sample number in situations where oil-palm was cultivated.

The relationship between overall manager attitudes toward settler leader participation and overall perceived participation levels was sig-

TABLE 8

Relationships between attitudes and perceived participation levels in programme decision making, according to the type of crop cultivated

Relationship	N	r	p
<i>Oil-palm</i>			
Attitudes and perceived participation levels for agriculture production-related decisions	34	.15	.15
Attitudes and perceived participation levels for community-related decisions	34	.37	.01
Overall attitudes and overall perceived participation levels	34	.25	.04
<i>Rubber</i>			
Attitudes and perceived participation levels for agriculture production-related decisions	49	-.21	.11
Attitudes and perceived participation levels for community-related decisions	48	.04	.41
Overall attitudes and overall perceived participation levels	48	-.10	.29

nificant ($p < .05$) with an r value of .25, in situations where settler leaders cultivated oil-palm. The type of crop had a considerable influence on the studied relationship. The results supported Hypothesis 4 for schemes in which managers and settler leaders were involved with oil-palm management and cultivation. This result suggests that the overall attitude of managers toward settler leader participation influence the overall perceived participation level of settler leaders in programme decision making, in situations where settler leaders cultivated oil-palm.

In situations where settler leaders cultivated rubber, the correlation coefficients were negative for agriculture production-related decisions and for overall decisions. The coefficient decreased for community development-related decisions. However, all the relationships were non-significant (see Table 8).

The differences in results obtained from analysing the data according to the type of crop could be explained by the difference in the way farming activities are carried out for the two crops. For oil-palm, group farming is implemented through the 'block system.' In this system, a group of 20 settlers work on a 200-acre plot or 'block' of land. The settlers are collectively responsible for carrying out farming activities which include fertilizer application, weed, disease and pest control, harvesting of crops, transportation of harvests to the factory, and keeping farm accounts. For rubber, these farming activities are all individually done by the settlers.

Therefore, there is a greater need for group cooperation in carrying out farming activities for oil-palm than for rubber which leads to a greater need for group participation in decision making. This is especially so for the harvesting and transportation of fresh oil-palm fruit bunches. Unlike oil-palm, the collecting and transportation of the rubber produce is done individually.

An analysis of the operations in managing oil-palm and rubber crops suggests how the nature of task processes provide the foundation upon which settler community social structures are built. According to Perrow (1967), and Hage and Aiken (1969), technology or the nature of

organisational tasks could influence the nature of the organisational social structure. That is, technology likely determines whether there is a diverse or relatively simple division of labour. These division of labour patterns could set limits on the goals that are maximized and those that are minimized. Viewing the settlers as members in a sub-social system, the nature of the task processes in which they are involved could determine the need for interaction and the need for expertise. This could in turn determine the extent of settler leader participation in the programme decision-making process. The nature of the task processes could explain the difference in the results obtained for the two crops.

The group farming system, implemented through the block system, was suspected to increase both scheme management and community development decision making among oil-palm scheme settler leaders, at the block level. It could be reasoned that this experience in group decision making at the block level coupled with the manager attitudes and expectations, influenced the settler leader overall participation level in the decision-making process at the SDC meeting.

CONCLUSIONS

First, this study concluded that in situations where community leaders' educational levels were low and community leaders lacked professional training and past participation experiences, the perceived participation levels in making both 'technical' and 'less technical' programme decisions were the same and were not very high.

Second, the perceived community leader participation levels were different for the different decision-making steps, for both programme decisions. Community leaders participated least on the choice of alternatives and the palm of action steps.

Third, the attitudes of extension staff toward community leader participation was not related to perceived participation levels in decision making, for programme decisions requiring more technical information to arrive at solutions. Only for less technical programme decisions were more favourable extension staff

attitudes likely to relate more strongly to community leader participation levels.

Fourth, the type of programme has a moderating influence on the relationship between extension staff attitudes or leadership orientations, and community leader participation levels.

Implications for Practice

This study has implications for administrators of adult education programme development. If as determined, the type of programme decisions, and adult educator attitudes toward adult learner participation, are important factors influencing adult learner participation in programme decision making, the type of programme decision should be identified when advocating adult learner participation. Programme decisions requiring less technical information, as in community development-related decisions, need adult educators with more democratic leadership orientations and processes. For programme decisions needing more adult learner interaction to achieve group objectives, adult educators with more favourable attitudes toward participation are more likely to enhance adult learner participation in programme decision making.

It is therefore important for FELDA to train managers in leadership orientations and styles suited to different programme decisions. FELDA managers should be more flexible in dealing with different programme decisions. When dealing with community development-related decisions, more democratic leadership orientations are needed in order to encourage settler leader participation in programme decisions, than with agriculture production-related decisions.

This study has implications for FELDA which has as its ultimate goal, the handing over of decision-making responsibilities to settler leaders. The fact that settler leaders had been in the schemes for an average of 12.31 years leads one to believe that FELDA would expect them to achieve higher participation levels in decision making regarding scheme management and settler community development. However, as indicated earlier, the participation levels were not very high. This could especially be so in situations where settler leaders

did not have the necessary information and ability for making the decisions.

There is therefore a need for FELDA to develop the settler leader management and decision making skills, and leadership abilities through a planned training programme with more specific objectives within an anticipated period of time. Managers need to expand settler leaders' responsibilities in management and decision making in keeping with settler leaders' developing abilities and increasing knowledge in management and decision making, such that in every scheme, one of the settler leaders will eventually be able to take over the scheme manager's role as the chairman of the Settler Development Committee.

In addition to training and expanding settler leaders' responsibilities, FELDA should provide settler leaders with appropriate incentives in terms of monetary rewards for the services rendered by the leaders. This would encourage settler leaders to participate more effectively and provide continued leadership in scheme management.

In the light of these findings, FELDA managers should be aware of their attitude influence on settler leader participation for community development-related decisions. The findings also suggest the importance of the persistence of this favourable attitude toward settler leader participation among FELDA staff interacting with settler representatives, at the different decision-making levels in the organisation.

Implications for Further Research

The relationships between adult educator attitudes and perceived adult learner participation levels, obtained from analysis of the oil-palm study sample (N = 34) data, were stronger than those found in the rubber sample (N = 48). This finding suggests the need to improve the research design. Instead of studying adult educators and adult learners in two settings, requiring relatively different levels of interaction, as in oil-palm and rubber settings, in the future the study sample should include only respondents in a decision-making setting requiring relatively more group interaction to plan and implement adult learner programmes, as in the oil-palm setting.

A follow-up study is needed to measure adult learner participation levels as reported by adult learners themselves, using a 24-item scale similar to that used for measuring adult educators' perceived levels of adult learner participation, instead of the 6-item scale. The increased number of items would be more likely to improve the reliability of the self-reported scale and would further validate the participation level measurement. The data obtained using this scale could be used to test the hypothesis of relationship between adult educators' attitudes and adult learners' actual participation levels.

Studies should be conducted on variables related to adult learners, including adult learners' need for independence and expectations. There is also a need to study variables related to the cultural context such as the adult learners' perceptions on hierarchical relationships, power and authority that could influence the extent of adult learner participation.

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