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Evaluation and Validation of a Management Development Program for an Aboriginal Community Organisation

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Abstract

A management development program—using a work-applied learning approach and action research—was conducted for the Board of an Aboriginal community organisation. The program was subsequently evaluated and the process and outcomes are the subject of this paper. A variety of evaluation methods are used to provide evidence from which observations can be drawn. Reflecting on the original program, it is concluded that the participants benefited from this form of management development.

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Introduction

A combination of quantitative and qualitative methods are used to evaluate the management development program that forms the subject of this study. The program itself was used to address the needs of indigenous community leaders who were board members of an Aboriginal community organisation. Work-applied learning methods and action research were used to design and implement the management training and development program.

The indigenous community leaders in this program were the Board members of an Aboriginal community organisation (Kuju CDEP Inc.) in Port Lincoln, South Australia. CDEP is an acronym for Community Development and Employment Program, an Australian Government initiative to provide employment and training within Aboriginal communities. The program was carried out over fourteen months during two stages, each involving the action research cycles of planning, action, observation, reflection and evaluation.

This paper represents an evaluation of the program and validation of the methods used. It focuses on the results for the Board members as a group.

Use of Action Research

Action research had its origins in the 1940s with Kurt Lewin (1946), who proposed a process of action and enquiry that involved the systematic collection of data on an organisation. This information was then used for action planning, and evaluating the results by collecting and reflecting on more data. A working definition of action research offered by Altrichter, Kemmis, McTaggart and Zuber-Skerritt (2002) explains how action research is suitable when participants are able to work (take action) at improving their situation through reflection and action, and are willing to share the results of their efforts with others (published research). Action research has been used for the development of managers engaged in resolving workplace issues and confronting the challenges of change (Abraham 1994a, 1994b; Brimson 2008; Hashim 2008; Jolley 2008;Kalendra 2011). This paper provides insights into the
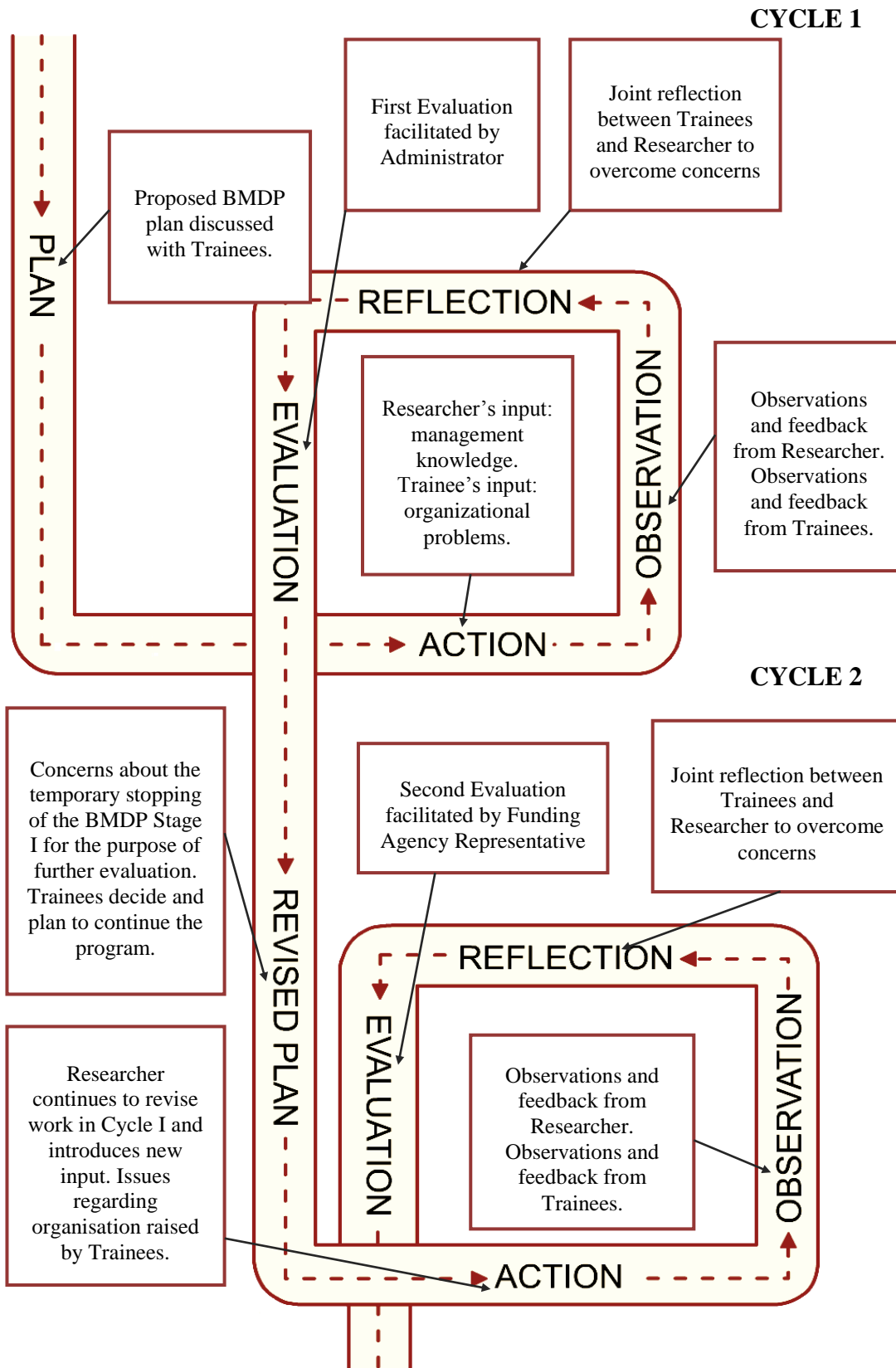
evaluation of action research used in the program for the development of managers at Kuju CDEP.

Action research lends itself to this type of program. A model to show how it was applied at different stages of the program is shown in the following two diagrams. It will be seen that there are three cycles of planning, action, observation, reflection and evaluation. The diagrams indicate in more detail what occurred at each of the stages within the three cycles. An important point is that evaluation was built into the process from the outset, so that participants could themselves contribute to the way in which it developed.

Subsequently, other methods of evaluation were used too. Data collected by participant observation of the development of the indigenous community leaders was evaluated using triangulation involving the facilitator, the indigenous community leaders, other staff of the organisation, representatives of funding agencies, and representatives of the Department of Employment Education and Training (DEET) and the Department of Technical and Further Education (DETAFE).
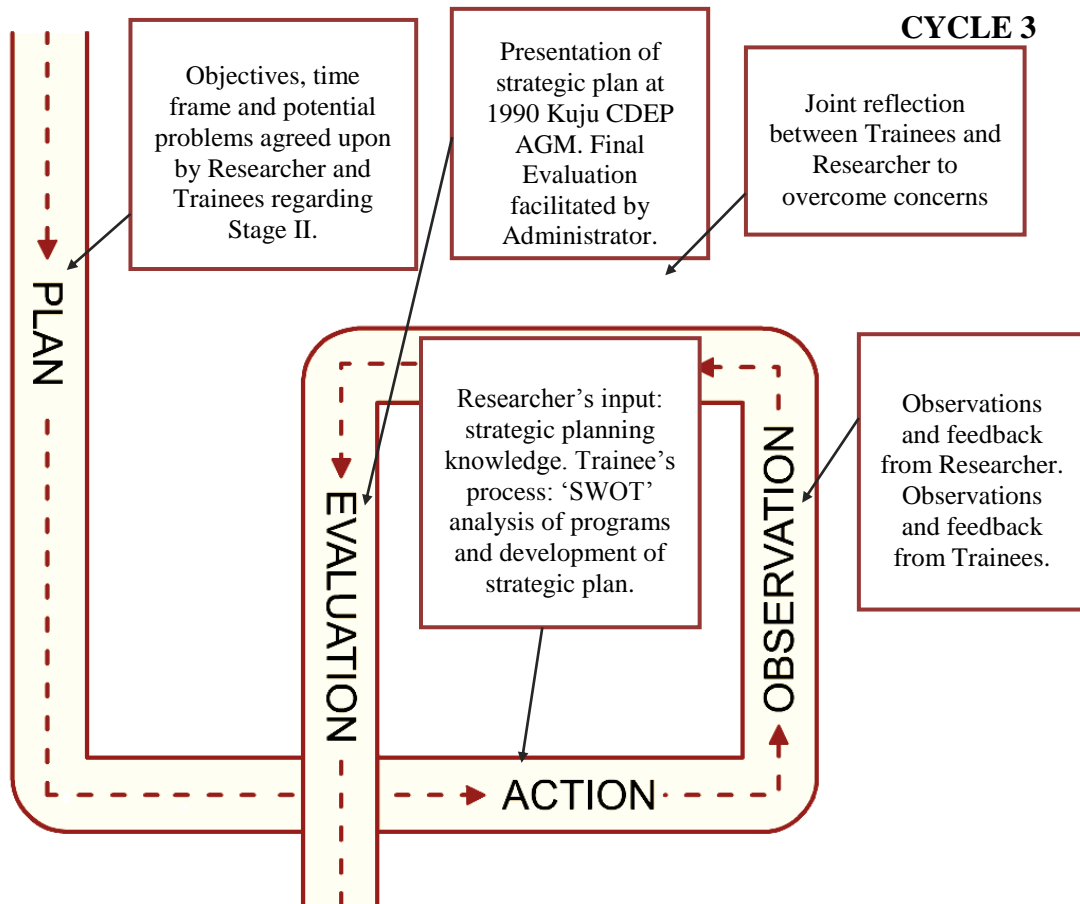
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Figure 1   **Action Research Cycles**

Figure 2   **Action Research Cycles (cont.)**

The perceptions of the evaluators of the growth of the indigenous community leaders were triangulated against that of the facilitator, and those of the indigenous community leaders themselves. Content analysis was carried out on the evaluation reports, the recorded observations of the facilitator and a video recording of the final evaluation and validation workshop. Data from this content analysis was analysed for significant differences using chi-square and Fisher tests.

Program Evaluation

Evaluation of management development programs requires consideration of the purposes for the evaluation and the methods used. The management training and development literature provides a range of purposes for evaluation as listed in Table 1 and the types of methods that have been used are shown in Table 2.

Table 1   **Summary of Purposes for Evaluation of Training Programs**.

EVALUATION PURPOSE	AUTHORS
Improving the program design	Brown & Gerhardt 2002; Donaldson &Scannell 1986; Easterby-Smith 1986; Laird 1985; Tovey 1997; Tracey 1984; Warr et al 1970
Learning by trainees	Brookfield 1988; Donaldson &Scannell 1986; Easterby-Smith 1986; Jackson &Kulp 1979; Kirkpatrick 1959, 1994; Parker 1973; Phillips 1990; Smith &Delahaye 1987.
Mandate from client organisation	Donaldson &Scannell 1986; Nickols 2005.
Reaction of trainees to program	Brookfield 1988; Donaldson &Scannell 1986; Jackson &Kulp 1979; Kirkpatrick 1959; Parker 1973; Phillips 1990; Smith &Delahaye 1987; Warr et al 1970.
Behavioural changes	Brookfield 1988; Donaldson &Scannell 1986; Kirkpatrick 1959; Phillips 1990;
Organisational Improvement	Brinkerhoff 2005; Brookfield 1988; Donaldson &Scannell 1986; Easterby-Smith 1986; Gordon, 2006; Holton 2005; Kirkpatrick 1959; Mayo & Dubois 1987; Phillips 1990; Smith &Delahaye 1987.
Individual job performance	Donaldson &Scannell 1986; Jackson &Kulp 1979; Parker 1973.
Group performance	Parker 1973.
Context	Warr et al 1970.
Input	Warr et al 1970.
To determine whether previously set goals have been achieved	Bramley 1991; Hawthorne 1987; Laird 1985; Nadler 1982; Phillips 1990; Tracey 1984.
Cost/benefit analysis	Hawthorne 1987; Mayo &DuBois 1987; Phillips 1990, 2003; Smith &Delahaye 1987.
Determine future trainees.	Phillips 1990.
Identify which trainees benefited.	Laird 1985; Phillips 1990;
Reinforce major points	Phillips 1990;

Gather data to assist in marketing future programs	Phillips 1990;
Determine if program was appropriate	Phillips 1990;
Establish a data base for decision making	Phillips 1990;

Table 2 **Summary of Trainee Evaluation Methods**.

METHODS USED IN EVALUATING TRAINEES IN TRAINING/ MANAGEMENT TRAINING PROGRAMS	AUTHORS
Pre-test/post-test model	Donaldson &Scannell 1986; Easterby-Smith 1986; Kruger & Smith 1987; Hughes 1982; Laird 1985; Mayo &DuBois 1987; Miccio 1986; Phillips 1990; Smith &Delahaye 1987.
Experimental, control groups approach	Easterby-Smith 1986; Hughes 1982; Laird 1985; Mayo &DuBois 1987; Mohamed 1984; Smith &Delahaye 1987; Wagel 1988; Weiner 1990.
Naturalistic approach, goal-free evaluation	Bramley 1991; Easterby-Smith 1986
Responsive approach	Bramley 1991.
Quasi-legal approach	Bramley 1991.
Pre-programme evaluation	Bramley 1991.
Survey questionnaire	Brook et al 1983; Easterby-Smith 1986; Enkuzena&Kliedere 2011; Fry &Cliborn 1975; Hultman 1983; Kohn and Parker 1969; Lien, Hung & McLean 2007; Mohamed 1984.
Statistics on organisational performance	Easterby-Smith 1986; Enkuzena&Kliedere 2011.
Interviews	Brook 1984; Easterby-Smith 1986; Enkuzena&Kliedere 2011; Fry &Cliborn 1975; Kohn and Parker 1969; Lien, Hung & McLean 2007; Virami& Seth 1985.
Managerial competencies	Collin 1989; Jacobs 1989; Kubr&Prokopenko 1989; Lien, Hung & McLean 2007; Saul 1989.
Self-reports	Brook 1984.

The use of action research for management development requires a different set of evaluation methods and the various methods and approaches from the literature on action research are presented in Table 3. Triangulation and critical self-reflection were mentioned most

frequently, but direct observation of trainees as well as the collection of data by interviews and surveys was also referred to. Blumberg and Pringle (1983) suggested a totally new evaluation approach for action research, after noting the problems with trying to apply the experimental/control groups approach, but Sommer (1987), reported success with this method. Thus some of the evaluation methods used in other training and development programmes have also been used in action research programmes, but some researchers have experimented with quite different forms of evaluation. There was no detailed discussion, however, in the action research literature of methods used to evaluate trainees in training programmes designed and implemented using action research.

Table 3   **Action Research Evaluation Methods**.

ACTION RESEARCH EVALUATION METHODS	AUTHORS
System state evaluation	Blumberg & Pringle 1983.
Direct observation	Argyris et al 1985; Burgoyne 1973
Experimental control groups approach	Blumberg & Pringle 1983; Sommer 1987.
Triangulation	Burgess 1984; Denzin 1978; Elliott 1976-1977; Forward 1989; Stebbins & Snow 1982; Whyte et al 1989.
Survey Questionnaires	Blennerhassett 1988; Burgoyne 1973; Kemmis&McTaggart 1988.
Interviews	Burgoyne 1973; Kemmis&McTaggart 1988.
Self-reports	Argyris et al 1985.
Critical self-reflection	Argyris et al 1985; Blennerhassett 1987; Kemmis&McTaggart 1988.

A comparison of methods recommended for evaluating trainees, as found in the literature on training evaluation with evaluation methods recommended in the action research literature is shown in Table 4. The goal-free, naturalistic approach which Bramley (1991) recommended could be considered an appropriate strategy for the evaluation of trainees in action research programmes, since, in action research the plan is modified during the process. As a result, it is difficult to predict likely outcomes and unexpected results may be observed. In action research, the emphasis on collaboration is also likely to be reflected in the evaluation, with the trainees taking a more active role.

Thus, the more traditional ways of evaluating trainees with pre-tests and post-tests and measuring outcomes against pre-determined goals are not appropriate in action research programs. An experimental approach involving control groups has been used in action research, but with mixed results. Detailed data collection by survey questionnaires, interviews and self-reports was seen to be an important aspect of both training evaluation and action research evaluation, although in action research the data collection is likely to be less structured than in many training evaluations. In action research, direct observation of trainees which allows for cross-checking of self-reports and critical self-reflection were also seen to be valuable evaluation techniques. Triangulation was an evaluation technique stressed by a number of writers on action research to establish the validity for the evaluation of action research programs rather than the use of experimental control groups. Although triangulation was not directly mentioned in the literature on evaluating trainees, Bramley's (1991) responsive approach, with its emphasis on evaluating from the perspective of different stakeholders, is a similar approach.

Table 4 **Comparison of Training Evaluation Methods with Action Research Evaluation Methods**.

TRAINING EVALUATION	ACTION RESEARCH EVALUATION
EITHER measured against previously determined objectives, OR goal-free	Goal-free.
Conducted by researcher	Researcher and trainees involved.
Naturalistic approach	Naturalistic approach, using descriptive, qualitative data.
Pre-test/post-test model	Pre-tests and post-tests not used.
Experimental models involving pre and post testing and control groups	Experimental models have been tried.
Cost-benefit analysis used in some evaluations	Cost/benefit analysis not used.
Surveys and interviews	Some use of interviews, unstructured reports and questionnaires.
Responsive approach	Triangulation.
Self reports	Self reports.
Not mentioned	Direct observation.
Not mentioned	Critical self reflection.

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Many of the methods used in evaluating trainees in training programs have been applied in action research programs. Approaches to evaluation that would appear to be appropriate for management training and development programs, designed using action research, include a goal-free approach, a naturalistic approach, triangulation (responsive/stakeholder approach), self-reports and data collection by questionnaires and interviews. These approaches have been used in training evaluation and also in the evaluation of action research programs.

For this management development program, a naturalistic, qualitative, goal-free evaluation approach was adopted, as suggested by Bramley (1991) and Easterby-Smith (1986, 1994). The techniques of triangulation, as recommended by Burgess (1984), Elliott (1976-77) and Forward (1989), and critical self-reflection, as suggested by Argyris, Putnam and McLain Smith (1985) and Kemmis and McTaggart (1988) were used. Data for the triangulations were obtained by participant observation and the use of self-reports in addition to data collected from other independent observers. These findings were then analysed using content analysis, and statistical tests for significant differences were performed.

The evaluation of Board members in the BMDP was based on earlier recommendations that training programs for Aboriginal community leaders should aim to improve confidence and self-esteem, commitment and a range of management skills and knowledge. This view was in keeping with the ideas of Kirkpatrick (cited in Yorks 2005), who stressed evaluation of the trainees' reaction to the program, learning by the trainees, behavioural changes by the trainees and results in terms of organisational performance, and those of Parker (1973) who emphasised the evaluation of individual job performance, group performance, trainee satisfaction and trainee knowledge gained. The Kirkpatrick model of evaluation has been further extended by Phillips (cited in Yorks 2005) to include return on investment as a fifth level of evaluation.

The evaluation in this BMDP considers the development of the Board members as a group and their perceived increases in understanding and application of management skills and knowledge, increases in confidence and self-esteem and increases in commitment. The

evaluation did not focus on individual Board members since the facilitator's contract for the design and implementation of the BMDP specified the development of the Board as a group and the Board members specifically requested that individual evaluations should not be carried out.

Statistical analysis of the three development variables—confidence, commitment and management skills and knowledge—was carried out by testing if there was a difference in the proportion of positive and negative comments before and after the program. A null hypothesis of no change and an alternative hypothesis of a perceived improvement were tested. Each variable could be represented in a 2 x 2 contingency table as shown in Table 5.

Table 5   **Confidence**

	+	-
BEFORE	0.0	4.3
AFTER	20.7	0

However, this is not a typical related pairs analysis and the data were treated as two separate groups of observations. The terms 'before' and 'after' are used for convenience, rather than in their technical sense.

The relevant treatment here (Levin 1981) is to use the chi-square statistical test when all expected frequencies based on the null hypothesis are greater than or equal to five. When any expected frequency falls below five the Fisher exact probability test (Siegel 1956; Sprent 1989) is used. In all cases the analysis was carried out on raw frequencies, although percentages are used in the tables for cross-comparison purposes.

To provide an insight into the types of comments that were made and to demonstrate that these statements do help to establish the development of the Board members, a qualitative, descriptive analysis of the data is first presented considering each of the areas of confidence

and self-esteem, commitment and management skills and knowledge in turn. This is followed by the results of a quantitative content analysis of the data to confirm the conclusions from the qualitative analysis.

Qualitative Analysis of Board Members as a Group

Data triangulation was carried out using comments made by the evaluators, the Board members and the facilitator. The evaluators included the Kuju Corp administrator, three Aboriginal Torres Strait Islanders Corporation (ATSIC) representatives, Technical and Further Education (TAFE) School of Aboriginal Administration representatives, a Department of Education Employment and Training (DEET)/Aboriginal Education Employment Development Unit (AEEDU) representative, staff members of Kuju CDEP and new Board members. Two of the three ATISC representatives attended the First Evaluation Workshop only but one of the two wrote a report for the Final Evaluation Workshop. Thus data triangulation was achieved by using multiple sources of data. These data were organised under three headings:

1. The written reports submitted at the First and Final Evaluation Workshops;
2. The videotape recording of the Final Evaluation Workshop; and
3. The observations of the facilitator as recorded in his notes made during the program.

In the qualitative analysis comments made by evaluators, Board members and the facilitator are presented together under the headings of confidence and self-esteem, commitment, and the understanding and application of management skills and knowledge.

Confidence and Self Esteem

The Regional Manager of ATSIC, commenting on the Board members' development following Stage I, wrote:

> *I was impressed with the confidence displayed by the participants in their presentations, especially those people who were new to the course.*

The observations of the facilitator (recorded in his notes) support the idea of the growth in confidence and self-esteem of the Board. The facilitator also noted the confident manner with which the Board members were able to answer questions and themselves ask questions of the evaluators at the Final Evaluation Workshop and the increased confidence which was displayed when they presented their strategic plan at the Kuju CEDP AGM 1991.Staff members and the new Board members also commented on improvements in self-esteem and confidence, particularly in public speaking. For example:

> *Members were transformed from "head down don't look at me people" to assertive, well spoken members of a working Board (a new Board Member).*
> *With the Board members having the opportunity of doing the Board Management Development Program, I feel it has benefited the whole Board in public speaking and feeling confident in themselves (a new Board member).*
> *The Board members' personal growth has really shown. When I speak to them they are so confident, their shyness is not there (one new Board Member).*

The TAFE community management trainer suggested that "a lot of the success of the Kuju Board members stems from their increased self-confidence and self-esteem" (TAFE representative) while the funding agency representative (ATSIC representative) stressed the confidence of the Board as a group.

> *The project exudes a feeling of confidence in dealing with local issues.There is a newfound confidence born out of the knowledge that as a Board there is unity and consensus agreement about the issues.*

The DEET/AEEDU representative commented, "The confidence and public speaking factor stands out very clearly".

Increased confidence and self-esteem were mentioned frequently during the Final Evaluation Workshop. The ATSIC representative stated that this was where she had observed the most growth:

> *When you first started I saw a number of fairly shy people lacking in confidence and that's one of the things that I have seen that's grown the most. People are willing to speak up when the need arises.*

A TAFE representative, himself an Aboriginal, in reference to the Board, said :

> *You have become a reasonably powerful group. People will listen to you. That gives us Aboriginal people in South Australia status, and that's very important. When you talk to people, you talk with authority.*

The chairperson, in a jointly prepared report with the administrator, described how confidence and self-esteem had been built up. He stated that:

> *Nearing the end of the BMDP, Board members were encouraged to participate in presentations using overhead projectors. This was a major step in developing confidence and although the presentations were not long, showed the progress Board members had made. Before the BMDP, some of those who had not even spoke in Board Meetings except the raising of a hand or a yes or a no began to speak and discuss.*
> *It is important to note that the Board was given encouragement as they progressed. It was continually pointed out to them the things they had achieved and how much they were progressing. Now the loudest did not always get their own way as the Board members began to gain confidence and self-esteem.*

These various comments indicate that the Board members were perceived to have increased in confidence and self-esteem.

Commitment

The administrator, in his summary report following BMDP Stage I, noted:

> *The attendance for the Issues Modules has also been excellent with members*
> *eager to learn. It should be noted that Kuju CDEP Board members receive no*
> *additional pay or monetary incentive to undertake this program.*
> *This, I believe, shows the commitment of these people to the program.*

Commitment was also observed by the facilitator during the program. He noted that the Board members were strongly committed to the BMDP and in particular to the development of the strategic plan for Kuju CDEP. This was shown by their attendance, their willingness to sacrifice personal commitments to attend sessions, and their high level of involvement in developing the plan.

The administrator painted a grim picture of the early days of Kuju CDEP in his report. Board members had lacked skills and experience, many having a long history of unemployment. The Board had little management expertise and there were few policies or guidelines for the running of the programs. Conflict at meetings had resulted in poor attendance and the Board had not functioned effectively.He noted improvement in a number of areas by the Board members and suggested that they had developed during the program:

> *Some Board members were irregular in their attendance. Strategies were*
> *introduced through Action Orientated Learning and Problem Solving.*
> *Participants of the training program were teamed up and were responsible for*
> *seeing their partners knew the training was on and turned up.*
> *The effects of this training program have been excellent. The Board has come to*
> *an understanding of real management and their responsibilities.*

He also listed "commitment" of the Board as one of the programs strengths. In a report, written jointly by the chairperson and the administrator, commitment before the program was contrasted with the commitment since the program began:

> *There were a few Board members that would attend Meetings regularly.*
> *However, the majority would attend irregularly. This made it very difficult to gain*
> *Board approval. When there was conflict within the community concerning an*
> *issue to Kuju Board, members would always avoid coming.*
> *Quite often Board members would simply forget completely about the time set for*
> *Board meetings. Also other activities would be given priority over these Board*
> *meetings such as shopping, drinking, playing cards, family activities, funerals and*
> *sport.*
> *The weather would also influence the attendance of meetings and also the day*
> *would affect the attendance such as: if it was a Friday, a day after pay day,*
> *attendance would be down.*

Attendance or commitment during the overall BMDP was around 90%. This occurred because of:

    a. the facilitator making plain the high expectations for those who were involved;

    b. the Board being made to realise the cost of this program and that it was the first and a very special program; and

    c. the buddy system, teaming up Board members ensuring that one member at least had transport and pointing out that everyone in that team was responsible for reminding and picking up the other person.

The above strategies worked well, and this was shown by the regular and high attendance for this program. This also established good habits and commitment for the attendance of Board meetings.

In the TAFE Community Management Trainer's report the early days of Kuju CDEP, when "the Board seemed to be in a state of continual crisis" with problems stemming from the inexperience of the Board members, personality conflicts and poor attendance at meetings, were contrasted with the present situation:

> *The first thing they learned was that if you are going to learn you have to be*
> *prepared to turn up at training sessions. At that time, attendance at Meetings*
> *organised by Kuju was not good. Your Board members have really shown that*
> *they can apply themselves and succeed. I think the reason for this is that the*
> *course made you realise that what you were doing was worthwhile and that you*
> *really could succeed.*

Individual Board members also recognised their increased commitment:

> *With the BMD program in the last twelve months, attendance with the old Board*
> *members was very good. I feel that is a strength.*
> *I must admit in the last few months we have had a lack of commitment and*
> *attendance, with the new Board members since they were selected, (a weakness)*
> *(a Board member).*

A funding agency representative also referred to commitment in his report:

> *One of the outstanding and critical features of success of the BMDP is that it*
> *requires a high level of commitment from participants. This has been clearly*
> *evident as most Board members have completed at least a good proportion of the*
> *course.*

The initial problems of motivation and attendance were mentioned by several Board members and the "buddy system" that was devised to overcome this problem was described. One of the Board members stated that "it's very hard for an Aboriginal to keep an appointment on his own" (A Board member). An ATSIC representative commented:

> *There's motivation there now and I think that there was motivation before but*
> *people didn't know how to handle it. You have been given a structure and you are*
> *working that out for yourselves (ATSIC representative).*

These various comments indicate that the Board members were perceived to have increased in commitment.

The Understanding and Application of Management Skills and Knowledge

The need for management training was recognised by the ATSIC Project Officer and the TAFE Community Management Trainer. He wrote: "The most important issue which Kuju needs to resolve at the present time is the establishment of a strong Board of Management". Evidence of development of management skills and knowledge is provided by the written output from the BMDP, including the problem-solving exercises, the strengths and weaknesses of Kuju CEDP programs and the Kuju CDEP strategic plan.

The report of the funding agency representative described the untenable situation in which the Board was attempting to operate before the BMDP. An unskilled and inexperienced management group, divided by factional interests and lacking clear purpose and direction, was making *ad hoc* decisions and stumbling from one crisis to the next. He noted that "there was a real concern that the whole operation could fold".

That there has been an improvement in the operation of the Board is supported by his statement that "in dealings with the Central Office, Canberra, Kuju is mentioned as exemplary in its operations". He pointed to increased communication skills of individual members, better communication between staff, Board members and participants, a decrease in the need for outside assistance, and a unity of direction with all Board members contributing to the decision making process. The ATSIC project officer also noted that "the language and understanding of management principles is evident in oral and written presentations" and he stressed the value of a strategic planning document prepared by the Board members "which clearly outlines the organisation mission, medium term goals and the strategies devised to attain these goals" and suggested that "it is evident from these changes that not only do Board members know more about the principles of management, but they are also experiencing the application of this learning". In a summary section he wrote:

> *In evaluating the objectives of the BMDP against outcomes it is quite clear that*
> *the program is effectively meeting its objectives. It is often the case that there is*
> *no physical evidence of this but the climate of the project exudes confidence and*

organisation. Certainly in terms of capital growth Kuju boasts an impressive asset inventory mainly attributed to the efficiency and effectiveness of its operations (ATSIC Project Officer).

Improvements in decision-making and problem-solving skills, planning and involvement were observed and recorded by staff members. For instance:

Since the commencement of the Board Management Training Course, I have seen change and growth in all Board members understanding modern day management.

The Board has been instrumental in implementing new policies for a guideline to work with. The Board feels that their training has been instrumental in the success of Kuju CDEP and have passed a Policy that all future intending Board members must agree to attend Board Training Programs.

Matters regarding budgets and forward planning are no longer a foreign language to the Board. They are now in control of Kuju CDEP and the making of decisions has become second nature to them. Had it not been for the Board Management Training Program,Kuju CDEP would still be muddling along with most decisions made by Administration staff and rubber stamped by the Board or, as is the case with some other schemes, entirely run by the Administration staff who are predominantly white (Admin staff member).

This situation was contrasted with what happened at Board meetings during the program:

The BMDP brought the Board of Kuju from unawareness to awareness to real Board management, and showed them how they were to be involved in putting this into practice. This was demonstrated at the Board meetings that were held during the period of this program. Everyone started to attend Board meetings and when issues were raised everyone would put forward their thoughts and discuss them; then a decision was made. Board members were finally able to deal with the problems and issues. This was due to the Board Management Development

> *Program on problem-solving and decision-making and a chart was drawn up to make these clear.*
> *Staff issues and participant issues of Kuju's employees began to be looked at instead of being avoided. By the end of the BMDP a Mission Statement had been produced with goals and strategies for the next three years. Knowledge was being applied (Administrator).*

There were many comments made during the Final Evaluation Workshop about the improved management skills of the Board, including better communication, both within the Board and between the Board and other Kuju CDEP participants. An interesting observation was made about the decision-making process which in the early days was very much *ad hoc* and spur of the moment:

> *The management, the thought processes, the problem solving, and decision making has put the brakes on everybody. The Board doesn't get pushed into making decisions (Administrator).*

The need for management training was described by a staff member of Kuju CDEP:

> *We could see a need within our organisation for training of our participants on CDEP to have our Board understand modern day management: the right procedures and how to manage. We just keep it as an ongoing thing to train our participants and our Board members to have a better understanding of management which has been lacking in Aboriginal communities.*
> *People have been put on Boards and they're making decisions, but half the time they don't know the decision they're making; it could be the wrong decision. This training here gives them the skills to make the right decision. So they know about conflict management and managing; when to say "no" and when to say "yes", so they can deal with this fairly for the whole organisation.*
> *So that's been the main issue for the training program, for the Board to know modern day management and to understand that when they're passing anything or bringing policies in and general control over the whole Kuju CDEP.*

Improvement in conflict resolution procedures also featured in many of the comments. For instance:

> *When the Board started off, when we used to have meetings, we never used to all*
> *agree on a certain subject. We were all arguing amongst ourselves at one another*
> *throats. But after we did this course, we found that we could sit down and discuss*
> *a matter in a civilised manner and at the end of the day, we walk out with the*
> *same decision, feeling good about it (a Board member).*

So it's that conflict resolution that you've been working through and those communications skills; taking opportunities out of those situations rather than seeing them as problems so much (ATSIC representative).

The application of this newly acquired knowledge to the management of programs within Kuju CDEP was also highlighted. A DEET/AEEDU representative stated that the Board now has "a common vision and a common direction". He stressed the importance of planning for organisations wishing to attract funding, citing Kuju as an example of a program with a clear sense of direction:

> *Kuju is continually mentioned interstate in our central office as being one of the*
> *most effective CDEP programs in the country and certainly one of the most*
> *progressive.*
> *You now have the skills to logically analyse any situation that's put in front of you*
> *so that the emotional issues don't get a chance to come out.*

The understanding and the application of management skills of Board members was observed by the facilitator all through the program.

From a qualitative analysis of the available data, this section has provided evidence that there has been a perceived increase in confidence and self-esteem, commitment and the understanding and application of management skills and knowledge among the Board

members as a group. In the next section, a quantitative content analysis of all the data on the Board as a group is presented.

Quantitative Analysis of Board Members as a Group

Content analysis was carried out on the evaluation reports, the recorded observations of the facilitator and the videotape recording of the Final Evaluation Workshop. Opinionated statements were placed in categories according to whether they referred to the Board members before or after the program, whether the statement was positive or negative, and whether the statement referred to the understanding and the application of management skills and knowledge, commitment or confidence and self-esteem.

In the following section the analysis of the opinions of the evaluators, the Board members and the facilitator are first presented individually and then brought together for data triangulation.

Content Analysis of Comments made by the Evaluators

Did the evaluators perceive the Board members as a group to have increased in:
· confidence and self-esteem
· commitment
· the understanding and application of management skills and knowledge?
This section responds to this question.

Table 6 shows the improvement in confidence, self-esteem and public speaking of the Board members, as perceived by the evaluators. There were no positive comments about the Board members before the BMDP on any of these areas and no negative comments referring to the Board members after the BMDP. The number of positive comments referring to confidence and public speaking after the program was high and there were a number of negative statements referring to confidence and public speaking before the program.

The differences among the results for "Commitment" in Table 6 are smaller, but these results do show a trend with, again, more positive than negative comments referring to after (or during) the BMDP and more negative statements than positive referring to before the BMDP.

In the analysis of these data, the number of statements in each category was expressed as a percentage of the total number of statements. Since each percentage was rounded to one decimal place, the total of the individual percentages is not exactly 100.

The list of categories in Table 6 under the 'Management Skills and Knowledge' heading includes those characteristics that a management training and development program might be expected to have improved in trainees. According to the statements made by the evaluators, there had been an improvement in most of these and it is worth noting that even though there were no references (positive or negative) to counselling, this does not necessarily mean that this did not also improve, only that it was not highlighted during the evaluation. The most frequently mentioned areas of improvement were goal-setting, planning, problem-solving, decision-making, conflict resolution and communication. The 'Management (general)' category included comments that did not refer to any particular skill or knowledge area.

For increased clarity this matrix was reduced using 'pragmatic' reduction, which is described by Carney (1972 p. 227) as "separating an array of cells into a smaller number of 'types', each comprising a combination of cells". Krippendorf (1980) referred to this as 'clustering'.

Table 6 **Content Analysis of the Evaluators' Reports and Comments made by the Evaluators during the Final Evaluation Workshop**.

| CONFIDENCE & SELF ESTEEM | FREQUENCY PERCENTAGES | | | |
| | BEFORE BMDP | | AFTER BMDP | |
	+	-	+	-
Confidence	0	2.1	11.1	0
Self-esteem	0	1.1	2.1	0
Public Speaking	0	0	6.4	0
Independence	0	1.1	1.1	0
Totals	0	4.3	20.7	0
COMMITMENT				
Involvement	0	0	0.5	0
Attendance	0.5	2.1	2.1	0
Strength	0	0	0	0
Commitment	0.5	1.6	2.1	0
Totals	1.0	3.7	4.7	0
MANAGEMENT SKILL & KNOWLEDGE				
Goal setting	0	1.6	5.3	0
Planning	0	0.5	4.3	0
Organising	0	1.1	1.1	0
Leadership	0	0	0.5	0
Problem solving	0	0	3.2	0
Application of knowledge	0	0	2.7	0
Conflict resolution	0	3.2	3.2	0
Decision making	0	2.1	5.9	0
Group cohesiveness	0	0.5	2.1	0
Counselling	0	0	0	0
Meeting procedure	0	0.5	1.6	0
Time management	0	0.5	0	0
Communication	0	0.5	3.7	0
Budgeting	0	0	0.5	0
Policy-making	0	0.5	2.7	0
Effectiveness of Board	0	1.1	2.7	0
Sharing of knowledge	0	0	1.1	0
Management experience	0.5	2.7	0	0.5
Evaluation	0	0.5	0.5	0
Management (general)	0	2.7	5.5	0
Totals	0.5	18	46.6	0.5

Table 7 is the result of clustering the data from Table 6 into the major categories of Confidence and Self-Esteem, Commitment and Management Skills and Knowledge. This reduced matrix shows more clearly the perceived changes in the confidence and self-esteem, commitment and management skills and knowledge of the Board Members. The data in this table were then analysed to see if the observed differences were statistically significant.

Table 7 **Content Analysis of the Evaluators' Reports and the Comments made by the Evaluators during the Final Evaluation Workshop. (Raw Frequencies are included in Brackets after each Frequency Percentage).**

	FREQUENCY PERCENTAGE			
	BEFORE BMDP %		AFTER BMDP %	
	+	-	+	-
Confidence & Self-Esteem	0(0)	4.3(8)	20.7(39)	0(0)
Commitment	1.0(2)	3.7(7)	4.7(9)	0(0)
Management Skill and Knowledge	0.5(1)	18.0(34)	46.6(91)	0.5(1)

Statistical Analysis of Data

Calculations were made on the raw data set of 192. P values, calculated for one degree of freedom, were as follows:

1. Confidence and Self-Esteem $P < 0.001$
2. Commitment $P < 0.001$
3. Management skills and knowledge $P < 0.001$.

These values disconfirm the null hypothesis and provide support for the alternative hypothesis that the evaluators perceived that the Board members as a group have increased

- in confidence and self-esteem;
- commitment; and
- the understanding and application of management skills and knowledge.

Selva Abraham

Content Analysis of Comments made by the Board Members

Another question asked in the BMDP program was:

Did the indigenous community leaders as a group perceive themselves as having increased in:

- confidence and self-esteem;
- commitment; and
- the understanding and application of management skills and knowledge?

This section considers this question.

Table 4 shows the improvement in confidence, self-esteem and public speaking of the Board members, as perceived by themselves. There were no positive comments about the Board members as a group before the BMDP on any of these areas and no negative comments referring to the Board members after the BMDP. There were, however, several positive comments referring to confidence, self-esteem and public speaking after the program and one negative comment referring to public speaking before the program.

A similar trend can be seen in the area of commitment where there were no positive comments on involvement, attendance, strength or commitment referring to the Board members before the BMDP but several referring to these areas after the BMDP. There were twice as many negative comments referring to commitment before the BMDP as negative comments referring to commitment after the BMDP.

In the management skills and knowledge category the main improvements highlighted by the Board members were in planning, problem solving, application of knowledge, conflict resolution, decision making, effectiveness of the Board and general management. There were no positive comments on any area before the BMDP and no negative comments referring to the Board members after the BMDP.

Table 8 **Content Analysis of the Self Reports of the Board Members and Comments made by the Board Members at the Final Evaluation Workshop on the Development of the Board as a Group.**

CONFIDENCE & SELF-ESTEEM	FREQUENCY PERCENTAGES			
	BEFORE BMDP		AFTER BMDP	
	+	-	+	-
Confidence	0	0	4.1	0
Self-Esteem	0	0	4.1	0
Public Speaking	0	2.0	2.0	0
Independence	0	0	0	0
Totals	0	2.0	10.2	0
COMMITMENT				
Involvement	0	0	0	0
Attendance	0	0	2.0	2.0
Strength	0	0	2.0	0
Commitment	0	8.2	8.2	2.0
Totals	0	8.2	12.2	4.0
MANAGEMENT SKILLS & KNOWLEDGE				
Goal setting	0	0	0	0
Planning	0	0	8.2	0
Organising	0	0	2.0	0
Leadership	0	0	0	0
Problem solving	0	2.0	6.1	0
Application of knowledge	0	0	4.1	0
Conflict resolution	0	2.0	8.2	0
Decision making	0	0	10.2	0
Group cohesiveness	0	0	2.0	0
Counselling	0	0	0	0
Meeting procedure	0	0	0	0
Time management	0	0	0	0
Communication	0	2.0	0	0
Budgeting	0	0	0	0
Policy-making	0	0	2.0	0
Effectiveness of Board	0	0	6.1	0
Sharing of knowledge	0	0	2.0	0
Management experience	0	0	0	0
Evaluation	0	0	0	0
Management (general)	0	0	6.1	0
Totals	0	6.0	57.0	0

Table 9 is the result of clustering the data from Table 8 into the major categories of Confidence and Self-Esteem, Commitment and Management Skills and Knowledge. This reduced matrix shows more clearly the perceived changes in the confidence and self-esteem, commitment and management skills and knowledge of the Board Members. The data in this table were then analysed to see if the observed differences were statistically significant.

Table 9   **Content Analysis of the Self Reports of the Board Members and Comments made by the Board Members at the Final Evaluation Workshop on the Development of the Board as a Group. (Raw Frequencies are included in Brackets after each Frequency Percentage).**

	FREQUENCY PERCENTAGE			
	BEFORE BMDP %		AFTER BMDP %	
	+	-	+	-
Confidence & Self-esteem	0(0)	2.0(1)	10.2(5)	0(0)
Commitment	0(0)	8.2(4)	12.2(6)	4.0(2)
Management Skill and Knowledge	0(0)	6.0(3)	57.0(28)	0(0)

Statistical Analysis of Data

Calculations were done on the raw data set of 49. P values calculated for one degree of freedom were as follows:

1. Confidence and Self-Esteem $P = 0.166$
2. Commitment $P = 0.03$
3. Management Skills and Knowledge $P = 0.00003$.

The values for commitment and management skills and knowledge disconfirm the null hypothesis and provide support for the alternative hypothesis that the Board members perceived themselves as a group to have increased in commitment and the understanding and

application of management skills and knowledge. The higher P value for confidence and self-esteem can be explained by the low total number of comments in this area. It is important to note that the data on confidence while not providing strong support for the hypothesis of perceived improvement, do not disconfirm this hypothesis.

Content Analysis of Facilitator's Observations (as Recorded in his Notes)

Another question asked in this BMDP program was:

Did the facilitator perceive the Board members as a group to have increased in:

- confidence and self-esteem;
- commitment; and
- the understanding and application of management skills and knowledge?

This section answers this question.

The analysis of the facilitator's participant observations (Tables 6 and 7) during the program shows a similar trend to the other content analyses. Again, confidence improvement was highlighted, but there was a smaller emphasis on public speaking. The commitment of the Board was mentioned more frequently. Within the area of management skills and knowledge, planning, problem-solving, and decision-making were again highlighted. In addition, goal setting, application of knowledge and evaluation were also emphasised.

Table 10 is the result of clustering the data from Table 11 into the major categories of Confidence and Self-esteem, Commitment and Management Skills and Knowledge. This reduced matrix shows more clearly the perceived changes in the confidence and self-esteem, commitment and management skills and knowledge of the Board Members. The data in this table were then analysed to see if the observed differences were statistically significant.

Table 10 **Content Analysis: Participant Observation by Facilitator as Recorded in his Notes - "Clustering" Matrix. (Raw Frequencies are included in Brackets after each Frequency Percentage.)**

	FREQUENCY PERCENTAGE			
	BEFORE BMDP %		AFTER BMDP %	
	+	-	+	-
Confidence & Self-esteem	0(0)	1.8(3)	19.3(32)	1.8(3)
Commitment	0(0)	1.8(3)	10.8(18)	2.4(4)
Management Skill and Knowledge	0(0)	13.2(22)	48.6(81)	0(0)

Table 11 **Content Analysis: Participant Observation by Facilitator as Recorded in his Notes.**

	FREQUENCY PERCENTAGES			
CONFIDENCE & SELF-ESTEEM	BEFORE BMDP		AFTER BMDP	
	+	-	+	-
Confidence	0	1.2	15.1	1.8
Self-esteem	0	0.6	3.6	0
Public speaking	0	0	0.6	0
Independence	0	0	0	0
Totals	0	1.8	19.3	1.8
COMMITMENT				
Involvement	0	0	0.6	0.6
Attendance	0	0	1.8	1.2
Strength	0	1.2	0	0
Commitment	0	0.6	8.4	0.6
Totals	0	1.8	10.8	2.4
MANAGEMENT SKILLS & KNOWLEDGE				
Goal setting	0	1.8	3.6	0
Planning	0	4.2	8.4	0
Organising	0	0.6	1.2	0
Leadership	0	0.6	1.2	0
Problem solving	0	0	8.4	0
Application of knowledge	0	0	6.0	0
Conflict resolution	0	0	3.0	0
Decision making	0	0.6	3.0	0
Group cohesiveness	0	0	1.8	0

Counselling	0	0	0	0
Meeting procedure	0	0.6	0	0
Time management	0	0	1.2	0
Communication	0	0	1.8	0
Budgeting	0	0	0	0
Policy-making	0	1.8	0	0
Effectiveness of Board	0	0.6	1.2	0
Sharing of knowledge	0	0	0	0
Management experience	0	0.6	0	0
Evaluation	0	0.6	3.6	0
Management (general)	0	1.2	4.2	0
Totals	0	13.2	48.6	0

Statistical Analysis of Data

Calculations were done on the raw data set of 166. P values, calculated for one degree of freedom, were as follows:

1. Confidence and Self-Esteem $P = 0.002$
2. Commitment $P = 0.015$
3. Management Skills and Knowledge $P < 0.001$

These values disconfirm the null hypothesis and provide support for the alternative hypothesis that the facilitator perceived the Board members as a group to have increased in confidence and self-esteem, commitment, the understanding and application of management of skills and knowledge.

Data Triangulation

The data from these three sources—the evaluators, the Board members and the facilitator—were then triangulated. The perceptions of the evaluators (the administrator, the new Board members, funding agency representatives, the TAFE representatives, the DEET/AEEDU representative and other staff members) of the development of the Board members as a group were triangulated against the perceptions of the Board members of their own development as a group and the facilitator's perceptions of the Board members' development as a group.

Figures 3, 4 and 5 are bar graphs which bring all these data together for comparison, showing this triangulation. These graphs show that the observations of the facilitator are strongly supported by the observations of the evaluators and the opinions of the Board members themselves. They also demonstrate the following trends:

i.   There has been a perceived improvement in the confidence and self-esteem of the Board members as a group as a result of their participation in the BMDP (Figure 3);

ii.   There has been a perceived increase in the commitment of the Board members as a group as a result of their participation in the BMDP (Figure 4); and

iii. There has been a perceived increase in the understanding of the application of management skills and knowledge of the Board members as a group as a result of their participation in the BMDP (Figure 5).

Figure 3**: Confidence and Self-esteem of the Board members as a group**
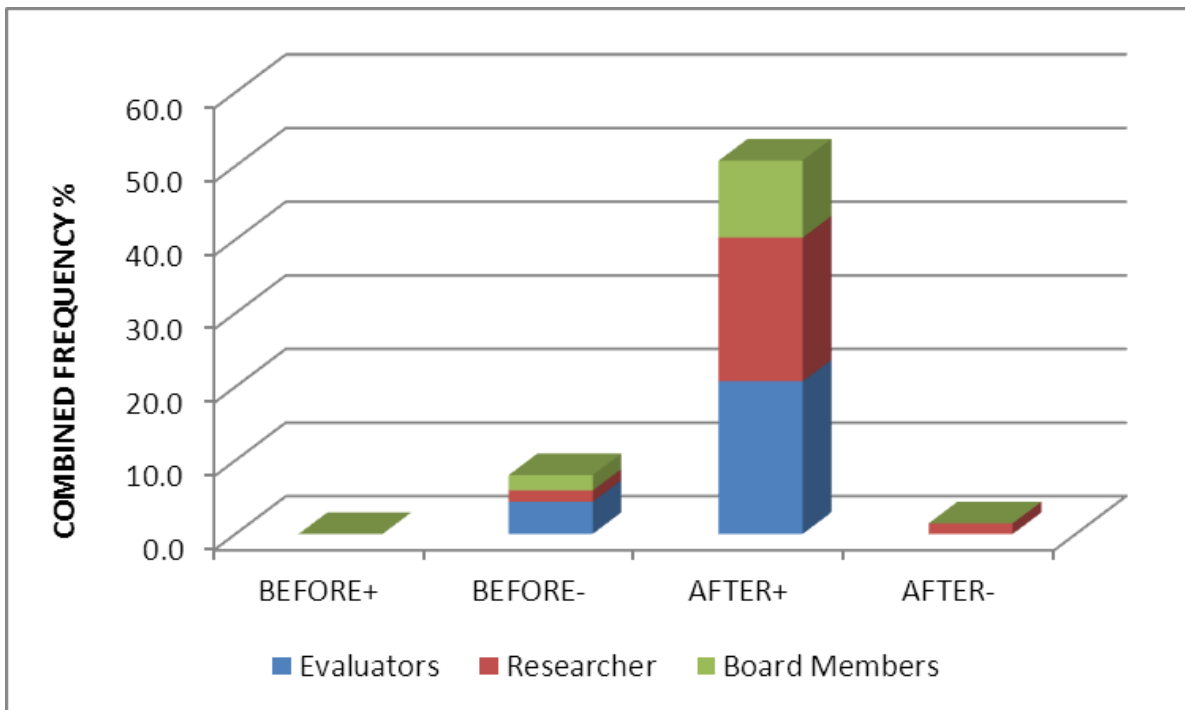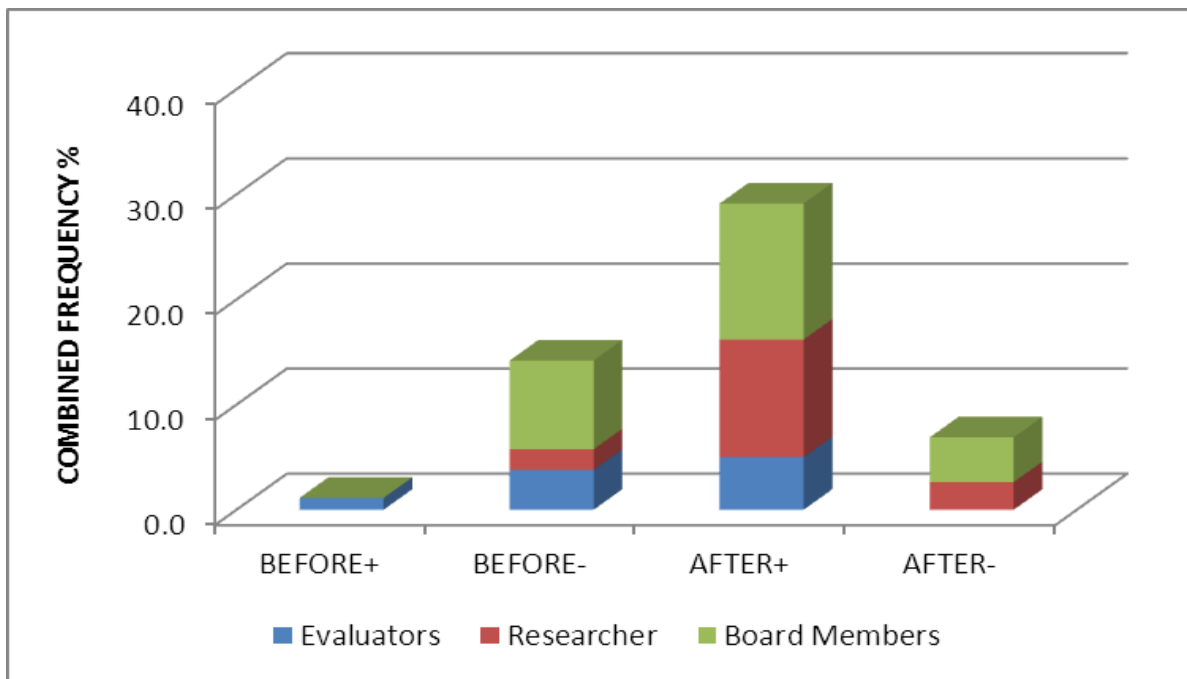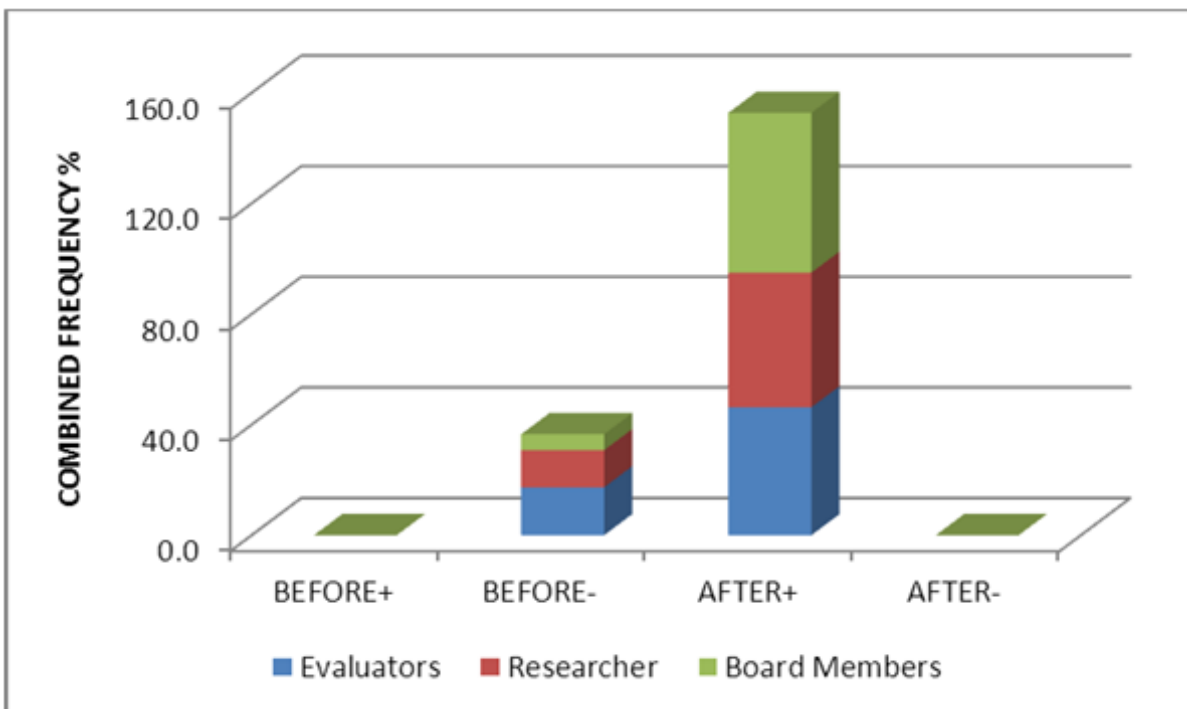
Figure 4**: Commitment of the Board members as a group**

Figure 5**: Understanding of application of Management Skills and Knowledge of the Board members as a group**

A comparison of the three graphs shows that by far the greatest number of statements was made about management skills and knowledge, followed by confidence, with commitment scoring the least.

The Board's development as a group was further evidenced by the document that the Board had prepared and presented to the Kuju CDEP Annual General Meeting (AGM), which included an analysis of Kuju CDEP's programs and the strategic plan. An examination of the qualitative analysis and the quantitative content analysis shows a similar trend in the perceived increased confidence and self-esteem, commitment, and the understanding and application of management skills and knowledge of the Board members as a group.

Conclusion

This paper presents a case study of the evaluation of a group of Kuju CDEP Board members who attended the Board Management Development Program which was run as an action research project.The purposes and methods of evaluation of training programs were considered and then compared with the requirements for evaluation of an action research management development program.

Evaluation was embedded within the action research program with cycles of planning, action, observation and reflection that enabled participants to contribute to the development outcomes. The formal evaluation of the Board members occurred during evaluation workshops held at the end of Stages I and II of the program. At the Final Evaluation Workshop, reports written by the Board members, the administrator, staff of Kuju CDEP, a funding agency representative and the TAFE Aboriginal Community Educator, were tabled. The Board members' development was evaluated using data triangulation. Data comprised the various reports, the videotape recording of the Final Evaluation Workshop, and the notes recording the perceptions of the evaluators of the development of the Board members as a group. Statistical analysis was applied to consideration of changes with the development variables. Content analysis was applied to the data triangulated against the perceptions of the

Board members and the facilitator with the perceptions and observations they made during the program in the development of Board members as a group.

On the basis of the evaluation processes that were undertaken, it can be concluded that the Board members were perceived to have increased in confidence and self-esteem, in commitment, and in the understanding and application of management skills and knowledge. Statements made referring to the Board members as a group, in the evaluation reports during the Final Evaluation Workshop and in the facilitator's notes, support these findings.

With an emphasis on evaluation, this study provides an understanding of strategies that can be applied for determining the effectiveness of management development and training programs by using an example that evaluated the development of managers involved in an action research program. Further research with the evaluation of training and development programs should consider the use of action research methods and how they can be applied for Aboriginal and other community governance settings.

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