

Appendix 1
Questionnaire (Managers)

QUESTIONNAIRE 1 - FOR MANAGERS AND SUPERVISORS

SECTION A


The information below is for matching purposes and will be kept strictly confidential.

Agency Name: _____

Agency telephone number: _____

Agency facsimile number: _____

Agency Address: _____

Please complete the following by placing the appropriate number in each box 

1. **What is your gender?**



Male	1
Female	2

2. **What is your age (in whole years)?**



3. **What is your country of Origin?**



Australia	1
UK/Ireland	2
Italy	3
Other (please specify below)	4

4. **With which culture do you most identify?**



Australia	1
UK/Ireland	2
Italy	3
Other (please specify below)	4

(Please turn over - note that pages are double-sided)

5. **What is the size of your Agency? (Total Full Time Equivalent Staff Numbers)**



6. **What is the location of the work site where you spend most of your time?**



Melbourne Metropolitan Area	1
Provincial City (Victoria)	2
Rural Victoria	3
Hobart Metropolitan Area	4
Provincial City (Tasmania)	5
Rural Tasmania	6

7. **What are the top three (3) personal support needs you have in order to access your own training?**



Accessible venue	1
Alternative print formatting	2
Attendant care	3
Audio loop	4
Facilitated communication	5
Physical access to training venues	6
Language interpreter	7
Signing interpreter	8
Specialised transport to training venue	9
Other (please specify below)	10

8. **What are your total hours of employment per week in the Agency?**
(Total your hours if you work in more than one disability agency)



9. **What are the average hours per week you spend in a management role i.e. time not spent in any other role such as direct service delivery?**
(Total your hours if you work in more than one disability agency)



10. **In your entire career, what has been your main work focus? e.g. accounting/finance, nursing, social worker, marketing, etc.**

.....

11. How many years have you been employed in the disability sector?

||| →

12. How many years have you worked as a manager?

||| →

13. How many years in total have you been employed as a manager in the disability sector?

||| →

14. How many staff report directly to you?

||| →

15. How many staff are there under your direct and indirect control?

||| →

16. How many volunteers are there under your direct and indirect control?

||| →

17. What is the highest level of formal study you have achieved?

||| →

Less than year 10	1
High school year 10	2
High school year 12	3
TAFE Certificate	4
Associate Diploma	5
Diploma	6
Undergraduate degree	7
Graduate	8
Certificate/Diploma	
Higher degree (Masters)	9
Higher degree (Doctorate)	10
Other (please specify below)	11

18. What is the \$ amount of budget for which you are responsible?

.....

19. In which field was your highest level of formal study?



ACRACS	1
Nursing	2
Welfare Studies	3
Education	4
Social/Youth Work	5
Community Development	6
Management	7
Other (please specify below)	8

20. What is the highest level of management study you have achieved?

Name of qualification

Institution

Year awarded

Major area of emphasis

21. To which professional management group(s) do you belong?

1.

2.

3.

SECTION B

For each statement, and working from left to right, please complete the next table by placing the appropriate number or symbol in each box according to the following system:

Great emphasis	5
Some emphasis	4
Neutral	3
Little emphasis	2
No emphasis	1
Do not know	0
Not relevant for our Agency's planning system at this time	X

	In our Agency planning...	This was the situation in our Agency in 1993	This is the situation in our Agency in 1998	This should be the situation in our Agency in the future
1	There was an emphasis on internal client services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	There was an emphasis on the efficiency of operations and processes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	There was an emphasis on attracting and retaining high-quality employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	There was an emphasis on analysis of financial strengths and weaknesses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	There was an emphasis on analysis of general economic and business conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	There was an emphasis on analysis of government and political issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	There was an emphasis on analysis of competitive trends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	There was an emphasis on performing market research	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	There was an emphasis on analysis of supplier trends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	There was an emphasis on analysis of external client and customer preferences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	There was an emphasis on analysis of technological trends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	There was an emphasis on the marketing function	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	There was an emphasis on the finance/accounting function	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	There was an emphasis on the personnel function	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	There was an emphasis on the operations function	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	There was an emphasis on portfolio analysis techniques (e.g. BCG matrix)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17	There was an emphasis on financial models (e.g. budgeting)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	There was an emphasis on forecasting and trend analysis techniques	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	There was an emphasis on strategic planning by the CEO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20	There was an emphasis on strategic planning by line managers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21	There was an emphasis on strategic planning by Board members	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22	There was an emphasis on involving all staff in strategic planning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SECTION C


PART A

Every worker in your Agency produces something during work. It may be a 'product' or a 'service'. Sometimes it is very difficult to identify the product or service. Below are listed some of the products and services that are 'produced' by non-government disability sector agencies.

<i>Policies and procedures</i>	<i>Personal care</i>	<i>Plans</i>
<i>Individual consumer plans</i>	<i>Employment opportunities</i>	<i>Delivered mail</i>
<i>Advocacy for consumers</i>	<i>Community projects</i>	<i>Report writing</i>
<i>Training and development</i>	<i>New programs</i>	<i>Meetings</i>

These are just a few of the things being produced.

I would like you to think carefully of the things you produce in your work, and of the things produced by those people who work around you in your Agency.

Please complete the following and place the appropriate number in each box 

1. **Thinking now of the various things produced by people you know in your Agency, how much are they producing?**



Their production is very low	1
It is fairly low	2
It is neither high nor low	3
It is fairly high	4
It is very high	5

2. **How good would you say is the quality of the products or services produced by people you know in your Agency?**



Their products or services are of poor quality	1
Their quality is not too good	2
Fair quality	3
Good quality	4
Excellent quality	5

3. **Do the people in your Agency seem to get maximum output from the resources (money, people, equipment, etc.) they have available? That is, how efficiently do they do their work?**



They do not work efficiently at all	1
Not too efficient	2
Fairly efficient	3
They are very efficient	4
They are extremely efficient	5

(Please turn over - note that pages are double-sided)

4. **How good a job is done by people in your Agency in anticipating problems that may come up in the future and preventing them from occurring or minimising their effects?**



They do a poor job in anticipating problems	1
Not too good a job	2
A fair job	3
They do a very good job	4
They do an excellent job in anticipating problems	5

5. **From time to time, newer ways are found to organise work, and newer tools and ways are found with which to do the work. How good a job do the people in your Agency do at keeping up with those changes that could affect the way they do their work?**



They do a poor job of keeping up to date	1
Not too good a job	2
A fair job	3
They do a good job	4
They do an excellent job of keeping up to date	5

6. **When changes are made in the routines or equipment, how quickly do the people in your Agency accept and adjust to these changes?**



Most people accept and adjust very slowly	1
Rather slowly	2
Fairly rapidly	3
They adjust very rapidly, but not immediately	4
Most people accept and adjust immediately	5

7. **What proportion of the people in your Agency readily accept and adjust to these changes?**



Considerably less than half accept and adjust	1
Slightly less than half do	2
About half do	3
Considerably more than half do	4
Practically everyone accepts and adjusts	5

8. **From time to time emergencies arise, such as programs crashing, or a breakdown in the flow of work occurs. When these emergencies occur, they cause work overloads for many people. Some work groups cope with these emergencies more readily and successfully than others. How good a job do the people in your Agency do at coping with these situations?**













They do a poor job of handling such situations	1
They do not do very well	2
They do a fair job	3
They do a good job	4
They do an excellent job of handling these situations	5

PART B

For each question in the table below, and working from left to right, please complete the table by placing the appropriate number or symbol in each box according to the following system:

- Strongly agree 5
- Agree 4
- Neutral 3
- Disagree 2
- Strongly disagree 1
- Do not know 0
- Not relevant for our Agency's planning system at this time X

	Agency Goals	This was the situation in our Agency between 1993 and 1998	This should be the situation in our Agency in the future
1	There was an improvement in short-term performance in accordance with Agency goals		
2	There was an improvement in long-term performance in accordance with Agency goals		
3	There was an improvement in predicting future trends in accordance with Agency goals		
4	There was an improvement in evaluating alternatives in accordance with Agency goals		
5	There was an improvement in enhancing management development in accordance with Agency goals		

PART C

For each question below, place the appropriate number or symbol in each box according to the following system:

- Strongly agree 5
- Agree 4
- Neutral 3
- Disagree 2
- Strongly disagree 1
- Do not know 0
- Not relevant to my job at this time X

1	As I evaluate my future in the Agency, I feel my level of satisfaction will increase	<input type="checkbox"/>
2	I am somewhat dissatisfied with my job	<input type="checkbox"/>
3	If I came into enough money so that I could live comfortably without working, I would quit my job	<input type="checkbox"/>
4	I often think of changing jobs	<input type="checkbox"/>
5	My job in the Agency gives me a great deal of personal satisfaction	<input type="checkbox"/>
6	I am satisfied with my job	<input type="checkbox"/>
7	Most other people in the Agency are more satisfied with their jobs than I am	<input type="checkbox"/>
8	My central life interests lie <i>outside</i> of my job at the Agency	<input type="checkbox"/>
9	My main interests in life are closely related to my job at the Agency	<input type="checkbox"/>
10	When I am worried, it is usually about things related to my job	<input type="checkbox"/>
11	I believe that other things are more important than my job at the Agency	<input type="checkbox"/>
12	Most of my energy is directed toward my job	<input type="checkbox"/>
13	In talking to my friends, I most like to talk about events related to my job	<input type="checkbox"/>
14	My central concerns are job related	<input type="checkbox"/>

PART D

For each box below, insert the appropriate % amount. An approximate percentage will suffice i.e. to the nearest 1 per cent, or put 'do not know' if you have no idea.

	Most recent full year available (%)	Year before that (%)	Two years prior to latest full year available (%)
Profitability (Balance of all incoming funds compared to all outgoing funds)			

Appendix 2

Questionnaire (Other staff)

QUESTIONNAIRE 2 - FOR ALL OTHER EMPLOYEES

The information below is for matching purposes and will be kept strictly confidential.

Agency Name: _____

Agency telephone number: _____

Agency facsimile number: _____

Agency Address: _____

PART A

Every worker in your Agency produces something during work. It may be a 'product' or a 'service'. Sometimes it is very difficult to identify the product or service. Below are listed some of the products and services that are 'produced' by non-government disability sector agencies.

Policies and procedures

Personal care

Plans

Individual consumer plans

Employment opportunities

Delivered mail

Advocacy for consumers

Community projects

Report writing

Training and development

New programs

Meetings

These are just a few of the things being produced.

I would like you to think carefully of the things you produce in your work, and of the things produced by those people who work around you in your Agency.

Please complete the following and place the appropriate number in each box 

1. **Thinking now of the various things produced by people you know in your Agency, how much are they producing?**



Their production is very low	1
It is fairly low	2
It is neither high nor low	3
It is fairly high	4
It is very high	5

2. **How good would you say is the quality of the products or services produced by people you know in your Agency?**



Their products or services are of poor quality	1
Their quality is not too good	2
Fair quality	3
Good quality	4
Excellent quality	5

3. **Do the people in your Agency seem to get maximum output from the resources (money, people, equipment, etc.) they have available? That is, how efficiently do they do their work?**



They do not work efficiently at all	1
Not too efficient	2
Fairly efficient	3
They are very efficient	4
They are extremely efficient	5

4. **How good a job is done by people in your Agency in anticipating problems that may come up in the future and preventing them from occurring or minimising their effects?**



They do a poor job in anticipating problems	1
Not too good a job	2
A fair job	3
They do a very good job	4
They do an excellent job in anticipating problems	5

5. **From time to time, newer ways are discovered to organise work, and newer equipment and techniques are found with which to do the work. How good a job do the people in your Agency do at keeping up with those changes that could affect the way they do their work?**



They do a poor job of keeping up to date	1
Not too good a job	2
A fair job	3
They do a good job	4
They do an excellent job of keeping up to date	5

6. When changes are made in the routines or equipment, how quickly do the people in your Agency accept and adjust to these changes?



Most people accept and adjust very slowly	1
Rather slowly	2
Fairly rapidly	3
They adjust very rapidly, but not immediately	4
Most people accept and adjust immediately	5

7. What proportion of the people in your Agency readily accept and adjust to these changes?



Considerably less than half accept and adjust	1
Slightly less than half do	2
About half do	3
Considerably more than half do	4
Practically everyone accepts and adjusts	5

8. From time to time emergencies arise, such as programs crashing, or a breakdown in the flow of work occurs. When these emergencies occur, they cause work overloads for many people. Some work groups cope with these emergencies more readily and successfully than others. How good a job do the people in your Agency do at coping with these situations?



They do a poor job of handling such situations	1
They do not do very well	2
They do a fair job	3
They do a good job	4
They do an excellent job of handling these situations	5

PART B

For each question in the table below, and working from left to right, please complete the table by placing the appropriate number or symbol in each box according to the following system:

- Strongly agree 5
- Agree 4
- Neutral 3
- Disagree 2
- Strongly disagree 1
- Do not know 0
- Not relevant for our Agency's planning system at this time X

	Agency Goals	This was the situation in our Agency between 1993 and 1998	This should be the situation in our Agency in the future
1	There was an improvement in short-term performance in accordance with Agency goals		
2	There was an improvement in long-term performance in accordance with Agency goals		
3	There was an improvement in predicting future trends in accordance with Agency goals		
4	There was an improvement in evaluating alternatives in accordance with Agency goals		
5	There was an improvement in enhancing management development in accordance with Agency goals		

PART C

For each question below, place the appropriate number or symbol in each box according to the following system:

- Strongly agree 5
- Agree 4
- Neutral 3
- Disagree 2
- Strongly disagree 1
- Do not know 0
- Not relevant to my job at this time X

1	As I evaluate my future in the Agency, I feel my level of satisfaction will increase		<input type="checkbox"/>
2	I am somewhat dissatisfied with my job		<input type="checkbox"/>
3	If I came into enough money so that I could live comfortably without working, I would quit my job		<input type="checkbox"/>
4	I often think of changing jobs		<input type="checkbox"/>
5	My job in the Agency gives me a great deal of personal satisfaction		<input type="checkbox"/>
6	I am satisfied with my job		<input type="checkbox"/>
7	Most other people in the Agency are more satisfied with their jobs than I am		<input type="checkbox"/>
8	My central life interests lie <i>outside</i> of my job at the Agency		<input type="checkbox"/>
9	My main interests in life are closely related to my job at the Agency		<input type="checkbox"/>
10	When I am worried, it is usually about things related to my job		<input type="checkbox"/>
11	I believe that other things are more important than my job at the Agency		<input type="checkbox"/>
12	Most of my energy is directed toward my job		<input type="checkbox"/>
13	In talking to my friends, I most like to talk about events related to my job		<input type="checkbox"/>
14	My central concerns are job related		<input type="checkbox"/>

PART D

For each box below, insert the appropriate % amount. An approximate percentage will suffice i.e. to the nearest 1 per cent, or put 'do not know' if you have no idea.

	Most recent full year available (%)	Year before that (%)	Two years prior to latest full year available (%)
Profitability (Balance of all incoming funds compared to all outgoing funds)			

Appendix 3

Covering letter

6 October 1998

Dear Participant,

Have you ever wondered what makes a successful organisation? Is it 'good' managers? 'Good' staff? 'Good' planning? Longevity? Time spent in the industry? And what is 'successful'? Happy staff? Happy managers? Big 'profits'? If I can have 10-20 minutes of your time at your next coffee break, I may be able to answer some of these questions for you as part of the requirements for my PhD in Education.

This research is designed to study aspects of *your life at work*. Because *you* are the only one who can give a correct picture of how you experience your work life, I request you to respond to the questionnaire questions frankly and honestly. Your participation is entirely voluntary and you can withdraw at any time without prejudice.

There are two (2) questionnaires. The **first** (coloured blue) **is for managers and supervisors only**, and is in three sections. **Managers** and **supervisors** should answer all three sections of this questionnaire. The first page of questionnaire one commences '**QUESTIONNAIRE 1 - FOR MANAGERS AND SUPERVISORS, SECTION A**'.

Managers and supervisors in this research refers to all those individuals who manage other (able-bodied) workers. 'Other workers' may include other managers, volunteers, functional workers (such as accounting/finance, administration, marketing and so on) and other support service workers.

Questionnaire two (coloured green) is only to be completed by **all other** (able-bodied) **employees**. All other employees should answer all parts of this questionnaire. The first page of questionnaire two commences '**QUESTIONNAIRE 2 - FOR ALL OTHER EMPLOYEES**'.

Your response will be kept *strictly confidential*. Only my PhD Supervisor and myself will have access to the individual information you give. The numbers, names of agencies, and questionnaires will only be made available to members of the research team.

Please contact Harvey Griggs (Telephone 03 63 243061 or Facsimile 03 63 243369) if you require additional copies of the questionnaire or have any questions at all. If additional questionnaires are required, you may also photocopy as many as necessary.

When completed, all questionnaires from your agency should be bundled together and placed in the reply paid envelope and posted. **Return date is Friday, 23 October, 1998.**

A brief summary of the results will be forwarded to your agency after the data are analysed. Thank you very much for your time and cooperation. I greatly appreciate your organisation's and your help in furthering this research endeavour.

If you have any concerns of an ethical nature or complaints about the manner in which the project is conducted, you may contact the Chair or Executive Officer of the University Ethics Committee (Human Experimentation). In 1998 the Chair is Dr Margaret Otlowski, phone (03) 62 267569 and the Executive Officer is Ms Chris Hooper, phone (03) 62 262763.

The project has received approval from the University Ethics Committee (Human Experimentation).

Yours in research,

Harvey Griggs
Lecturer in Management

Appendix 4 *Aggregate correlations (Spearman) between education and training levels of top management teams and organisational performance (Teams n=137)*

Correlations

			Size	Location	Education and Training (Average)	Education and Training (Highest)	Management education and training (Average)	Management education and training (Highest)	Organisation effectiveness	Objective fulfillment	Job satisfaction	Central life interests
Spearman's rho	Size	Correlation Coefficient	1.000	-.069	.016	.190*	.345**	.477**	-.056	-.058	.264**	.018
		Sig. (2-tailed)	.	.425	.854	.026	.000	.000	.518	.500	.002	.831
	N	137	137	137	137	137	137	137	137	137	137	137
	Location	Correlation Coefficient	-.069	1.000	-.208*	-.357**	-.084	-.186*	-.059	-.086	-.082	-.039
		Sig. (2-tailed)	.425	.	.015	.000	.329	.030	.491	.315	.339	.654
	N	137	137	137	137	137	137	137	137	137	137	137
	Education and Training (Average)	Correlation Coefficient	.016	-.208*	1.000	.798**	.215*	.136	.411**	.243**	.218*	.021
		Sig. (2-tailed)	.854	.015	.	.000	.012	.114	.000	.004	.010	.810
	N	137	137	137	137	137	137	137	137	137	137	137
	Education and Training (Highest)	Correlation Coefficient	.190*	-.357**	.798**	1.000	.279**	.382**	.315**	.162	.252**	-.056
		Sig. (2-tailed)	.026	.000	.000	.	.001	.000	.000	.000	.059	.003
	N	137	137	137	137	137	137	137	137	137	137	137
	Management education and training (Average)	Correlation Coefficient	.345**	-.084	.215*	.279**	1.000	.883**	.028	.104	.324**	.197*
Sig. (2-tailed)		.000	.329	.012	.001	.	.000	.743	.229	.000	.021	
N	137	137	137	137	137	137	137	137	137	137	137	
Management education and training (Highest)	Correlation Coefficient	.477**	-.186*	.136	.382**	.883**	1.000	.008	.087	.316**	.119	
	Sig. (2-tailed)	.000	.030	.114	.000	.000	.	.924	.311	.000	.165	
N	137	137	137	137	137	137	137	137	137	137	137	
Organisation effectiveness	Correlation Coefficient	-.056	-.059	.411**	.315**	.028	.008	1.000	.367**	.151	.055	
	Sig. (2-tailed)	.518	.491	.000	.000	.743	.924	.	.000	.078	.522	
N	137	137	137	137	137	137	137	137	137	137	137	
Objective fulfillment	Correlation Coefficient	-.058	-.086	.243**	.162	.104	.087	.367**	1.000	.223**	.016	
	Sig. (2-tailed)	.500	.315	.004	.059	.229	.311	.000	.	.009	.848	
N	137	137	137	137	137	137	137	137	137	137	137	
Job satisfaction	Correlation Coefficient	.264**	-.082	.218*	.252**	.324**	.316**	.151	.223**	1.000	.168*	
	Sig. (2-tailed)	.002	.339	.010	.003	.000	.000	.078	.009	.	.050	
N	137	137	137	137	137	137	137	137	137	137	137	
Central life interests	Correlation Coefficient	.018	-.039	.021	-.056	.197*	.119	.055	.016	.168*	1.000	
	Sig. (2-tailed)	.831	.654	.810	.518	.021	.165	.522	.848	.050	.	
N	137	137	137	137	137	137	137	137	137	137	137	

*. Correlation is significant at the .05 level (2-tailed).

**. Correlation is significant at the .01 level (2-tailed).

Appendix 5 *Aggregate correlations (Spearman) between education and training levels of Tasmanian top management teams and organisational performance (Teams n=20)*

Correlations

			Size	Location	Education and Training (Average)	Education and Training (Highest)	Management education and training (Average)	Management education and training (Highest)	Organisation effectiveness	Objective fulfilment	Job satisfaction	Central life interests
Spearman's rho	Size	Correlation Coefficient	1.000	-.191	-.340	-.154	.132	.266	-.443	-.259	.349	.012
		Sig. (2-tailed)		.420	.142	.516	.580	.256	.050	.270	.132	.961
		N	20	20	20	20	20	20	20	20	20	20
	Location	Correlation Coefficient	-.191	1.000	.082	-.069	.025	-.111	.203	-.134	-.323	.136
		Sig. (2-tailed)	.420		.730	.774	.915	.640	.390	.575	.165	.569
		N	20	20	20	20	20	20	20	20	20	20
	Education and Training (Average)	Correlation Coefficient	-.340	.082	1.000	.960**	.118	.104	.643**	.537*	.043	-.072
		Sig. (2-tailed)	.142	.730		.000	.620	.661	.002	.015	.857	.764
		N	20	20	20	20	20	20	20	20	20	20
	Education and Training (Highest)	Correlation Coefficient	-.154	-.069	.960**	1.000	.213	.260	.541*	.484*	.147	-.107
		Sig. (2-tailed)	.516	.774	.000		.366	.267	.014	.030	.536	.655
		N	20	20	20	20	20	20	20	20	20	20
Management education and training (Average)	Correlation Coefficient	.132	.025	.118	.213	1.000	.960**	-.084	-.205	.315	.284	
	Sig. (2-tailed)	.580	.915	.620	.366		.000	.724	.385	.176	.225	
	N	20	20	20	20	20	20	20	20	20	20	
Management education and training (Highest)	Correlation Coefficient	.266	-.111	.104	.260	.960**	1.000	-.192	-.218	.404	.204	
	Sig. (2-tailed)	.256	.640	.661	.267	.000		.418	.357	.077	.389	
	N	20	20	20	20	20	20	20	20	20	20	
Organisation effectiveness	Correlation Coefficient	-.443	.203	.643**	.541*	-.084	-.192	1.000	.511*	-.537*	.030	
	Sig. (2-tailed)	.050	.390	.002	.014	.724	.418		.021	.015	.900	
	N	20	20	20	20	20	20	20	20	20	20	
Objective fulfilment	Correlation Coefficient	-.259	-.134	.537*	.484*	-.205	-.218	.511*	1.000	.078	-.365	
	Sig. (2-tailed)	.270	.575	.015	.030	.385	.357	.021		.744	.114	
	N	20	20	20	20	20	20	20	20	20	20	
Job satisfaction	Correlation Coefficient	.349	-.323	.043	.147	.315	.404	-.537*	.078	1.000	-.262	
	Sig. (2-tailed)	.132	.165	.857	.536	.176	.077	.015	.744		.264	
	N	20	20	20	20	20	20	20	20	20	20	
Central life interests	Correlation Coefficient	.012	.136	-.072	-.107	.284	.204	.030	-.365	-.262	1.000	
	Sig. (2-tailed)	.961	.569	.764	.655	.225	.389	.900	.114	.264		
	N	20	20	20	20	20	20	20	20	20	20	

** Correlation is significant at the .01 level (2-tailed).

* Correlation is significant at the .05 level (2-tailed).

Appendix 6 *Aggregate correlations (Spearman) between education and training levels of Victorian top management teams and organisational performance (Teams n=117)*

Correlations

			Size	Location	Education and Training (Average)	Education and Training (Highest)	Management education and training (Average)	Management education and training (Highest)	Organisation effectiveness	Objective fulfilment	Job satisfaction	Central life interests
Spearman's rho	Size	Correlation Coefficient	1.000	.096	.042	.191*	.345**	.477**	.020	-.091	.253**	-.057
		Sig. (2-tailed)	.	.301	.650	.039	.000	.000	.827	.329	.006	.540
		N	117	117	117	117	117	117	117	117	117	117
	Location	Correlation Coefficient	.096	1.000	-.208*	-.311**	.041	-.065	-.138	-.127	-.040	.063
		Sig. (2-tailed)	.301	.	.024	.001	.658	.488	.138	.173	.669	.500
		N	117	117	117	117	117	117	117	117	117	117
	Education and Training (Average)	Correlation Coefficient	.042	-.208*	1.000	.780**	.224*	.126	.386**	.191*	.234*	.065
		Sig. (2-tailed)	.650	.024	.	.000	.015	.177	.000	.040	.011	.484
		N	117	117	117	117	117	117	117	117	117	117
	Education and Training (Highest)	Correlation Coefficient	.191*	-.311**	.780**	1.000	.258**	.372**	.301**	.115	.250**	-.023
		Sig. (2-tailed)	.039	.001	.000	.	.005	.000	.001	.218	.006	.802
		N	117	117	117	117	117	117	117	117	117	117
Management education and training (Average)	Correlation Coefficient	.345**	.041	.224*	.258**	1.000	.861**	.043	.106	.329**	.177	
	Sig. (2-tailed)	.000	.658	.015	.005	.	.000	.643	.256	.000	.056	
	N	117	117	117	117	117	117	117	117	117	117	
Management education and training (Highest)	Correlation Coefficient	.477**	-.065	.126	.372**	.861**	1.000	.042	.115	.300**	.080	
	Sig. (2-tailed)	.000	.488	.177	.000	.000	.	.654	.218	.001	.391	
	N	117	117	117	117	117	117	117	117	117	117	
Organisation effectiveness	Correlation Coefficient	.020	-.138	.386**	.301**	.043	.042	1.000	.342**	.252**	.060	
	Sig. (2-tailed)	.827	.138	.000	.001	.643	.654	.	.000	.006	.522	
	N	117	117	117	117	117	117	117	117	117	117	
Objective fulfilment	Correlation Coefficient	-.091	-.127	.191*	.115	.106	.115	.342**	1.000	.211*	.041	
	Sig. (2-tailed)	.329	.173	.040	.218	.256	.218	.000	.	.022	.657	
	N	117	117	117	117	117	117	117	117	117	117	
Job satisfaction	Correlation Coefficient	.253**	-.040	.234*	.250**	.329**	.300**	.252**	.211*	1.000	.189*	
	Sig. (2-tailed)	.006	.669	.011	.006	.000	.001	.006	.022	.	.041	
	N	117	117	117	117	117	117	117	117	117	117	
Central life interests	Correlation Coefficient	-.057	.063	.065	-.023	.177	.080	.060	.041	.189*	1.000	
	Sig. (2-tailed)	.540	.500	.484	.802	.056	.391	.522	.657	.041	.	
	N	117	117	117	117	117	117	117	117	117	117	

*. Correlation is significant at the .05 level (2-tailed).

** Correlation is significant at the .01 level (2-tailed).

Appendix 7 Summarised bivariate regression statistics for relationships between highest education and training levels of top management teams and measures of organisational performance

	R	R Square	Adjusted R square	Std. Error of the Estimate	Sum of Squares	df	Mean Square	F	Sig.	Unst. Coeff.	Std. Error	St. Coeff	t	Sig.
Highest education and training and organisational effectiveness	.387	.149	.143	.5622	7.497	1	7.497	23.722	.000	.157	.032	.387	4.871	.000
Highest education and training and objective fulfilment	.129	.017	.009	.8061	1.493	1	1.493	2.297	.132	6.986E	.046	.129	1.516	.132
Highest education and training and job satisfaction	.248	.062	.055	.5098	2.304	1	2.304	8.866	.003	8.67E	.029	.248	2.978	.003
Highest education and training and central life interests	.046	.002	-.005	.5044	7.13E	1	7.13E	.280	.597	1.527E	.029	.046	.529	.597

Appendix 8 Summarised bivariate regression statistics for relationships between average education and training levels of top management teams and measures of organisational performance

	R	R Square	Adjusted R square	Std. Error of the Estimate	Sum of Squares	df	Mean Square	F	Sig.	Unst. Coeff.	Std. Error	St. Coeff	t	Sig.
Average education and training and organisational effectiveness	.466	.217	.211	.5394	10.893	1	10.893	37.443	.000	.192	.031	.466	6.119	.000
Average education and training and objective fulfilment	.188	.035	.028	.7984	3.155	1	3.155	4.949	.028	.103	.046	.188	2.225	.028
Average education and training and job satisfaction	.237	.056	.049	.5113	2.096	1	2.096	8.020	.005	8.42E	.030	.237	2.832	.005
Average education and training and central life interests	.097	.009	.002	.5025	.321	1	.321	1.270	.262	3.29E	.029	.097	1.127	.262

Appendix 9 Summarised bivariate regression statistics for relationships between highest management-specific education and training levels of top management teams and measures of organisational performance

	R	R Square	Adjusted R square	Std. Error of the Estimate	Sum of Squares	df	Mean Square	F	Sig.	Unst. Coeff.	Std. Error	St. Coeff	t	Sig
Highest management education and training and organisational effectiveness	.021	.000	-.007	.6095	2.129E	1	2.129E	.057	.811	3.596E	.015	.021	.239	.811
Highest management education and training and objective fulfilment	.110	.012	.005	.8080	1.076	1	1.076	1.648	.201	2.557E	.020	.110	1.284	.201
Highest management education and training and job satisfaction	.338	.114	.107	.4954	4.259	1	4.259	17.357	.000	5.087E	.012	.338	4.166	.000
Highest management education and training and central life interests	.152	.023	.016	.4990	.798	1	.798	3.207	.076	2.20E	.012	.152	1.791	.076

Appendix 10 Summarised bivariate regression statistics for relationships between average management-specific education and training levels of top management teams and measures of organisational performance

	R	R Square	Adjusted R square	Std. Error of the Estimate	Sum of Squares	df	Mean Square	F	Sig	Unst. Coeff.	Std. Error	St. Coeff.	t	Sig
Average management education and training and organisational effectiveness	.105	.011	.004	.6062	.551	1	.551	1.5	.223	2.25E	.018	.105	1.225	.223
Average management education and training and objective fulfilment	.160	.025	.018	.8025	2.270	1	2.270	3.525	.063	4.56E	.024	.160	1.877	.063
Average management education and training and job satisfaction	.338	.114	.108	.4953	4.267	1	4.267	17.392	.000	6.25E	.015	.338	4.170	.000
Average management education and training and central life interests	.228	.052	.045	.4916	1.787	1	1.787	7.395	.007	4.04E	.015	.228	2.719	.007

Appendix 11 Aggregate correlations (Spearman) between education and training levels of top management teams and strategic planning (Teams n=137)

			Correlations											
			Size	Location	Education and Training (Average)	Education and Training (Highest)	Management education and training (Average)	Management education and training (Highest)	Strategic planning	Internal orientation	External orientation	Functional integration	Use of techniques	Key personnel involvement
Spearman's rho	Size	Correlation Coefficient	1.000	-.069	.016	.190*	.345**	.477**	.150	-.014	.202*	-.030	.129	.207*
		Sig. (2-tailed)		.425	.854	.026	.000	.000	.080	.872	.018	.729	.132	.015
		N	137	137	137	137	137	137	137	137	137	137	137	137
	Location	Correlation Coefficient	-.069	1.000	-.208*	-.357**	-.084	-.186*	-.034	-.032	-.009	.043	-.038	-.102
		Sig. (2-tailed)	.425		.015	.000	.329	.030	.696	.708	.915	.617	.657	.235
		N	137	137	137	137	137	137	137	137	137	137	137	137
	Education and Training (Average)	Correlation Coefficient	.016	-.208*	1.000	.798**	.215*	.136	.051	.019	-.003	.073	.036	-.100
		Sig. (2-tailed)	.854	.015		.000	.012	.114	.550	.828	.971	.395	.680	.247
		N	137	137	137	137	137	137	137	137	137	137	137	137
	Education and Training (Highest)	Correlation Coefficient	.190*	-.357**	.798**	1.000	.279**	.382**	-.021	-.013	-.089	.029	-.005	.029
		Sig. (2-tailed)	.026	.000	.000		.001	.000	.812	.885	.303	.741	.953	.735
		N	137	137	137	137	137	137	137	137	137	137	137	137
	Management education and training (Average)	Correlation Coefficient	.345**	-.084	.215*	.279**	1.000	.883**	.072	.052	.112	-.027	.056	.073
		Sig. (2-tailed)	.000	.329	.012	.001		.000	.402	.549	.193	.752	.517	.398
		N	137	137	137	137	137	137	137	137	137	137	137	137
	Management education and training (Highest)	Correlation Coefficient	.477**	-.186*	.136	.382**	.883**	1.000	.019	.038	.052	-.055	.026	.006
		Sig. (2-tailed)	.000	.030	.114	.000	.000		.825	.656	.549	.524	.762	.942
		N	137	137	137	137	137	137	137	137	137	137	137	137
	Strategic planning	Correlation Coefficient	.150	-.034	.051	-.021	.072	.019	1.000	.528**	.897**	.773**	.774**	.723**
		Sig. (2-tailed)	.080	.696	.550	.812	.402	.825	.000		.000	.000	.000	.000
		N	137	137	137	137	137	137	137	137	137	137	137	137
	Internal orientation	Correlation Coefficient	-.014	-.032	.019	-.013	.052	.038	.528**	1.000	.371**	.403**	.364**	.223**
		Sig. (2-tailed)	.872	.708	.828	.885	.549	.656	.000		.000	.000	.000	.009
		N	137	137	137	137	137	137	137	137	137	137	137	137
	External orientation	Correlation Coefficient	.202*	-.009	-.003	-.089	.112	.052	.897**	.371**	1.000	.608**	.588**	.572**
		Sig. (2-tailed)	.018	.915	.971	.303	.193	.549	.000	.000		.000	.000	.000
		N	137	137	137	137	137	137	137	137	137	137	137	137
	Functional integration	Correlation Coefficient	-.030	.043	.073	.029	-.027	-.055	.773**	.403**	.608**	1.000	.577**	.487**
		Sig. (2-tailed)	.729	.617	.395	.741	.752	.524	.000	.000	.000		.000	.000
		N	137	137	137	137	137	137	137	137	137	137	137	137
	Use of techniques	Correlation Coefficient	.129	-.038	.036	-.005	.056	.026	.774**	.364**	.588**	.577**	1.000	.430**
		Sig. (2-tailed)	.132	.657	.680	.953	.517	.762	.000	.000	.000	.000		.000
		N	137	137	137	137	137	137	137	137	137	137	137	137
	Key personnel involvement	Correlation Coefficient	.207**	-.102	.100	.029	.073	.006	.723**	.223**	.572**	.487**	.430**	1.000
		Sig. (2-tailed)	.015	.235	.247	.735	.398	.942	.000	.009	.000	.000	.000	
		N	137	137	137	137	137	137	137	137	137	137	137	137

*. Correlation is significant at the .05 level (2-tailed).

** Correlation is significant at the .01 level (2-tailed).

Appendix 12 Aggregate correlations (Spearman) between education and training levels of Tasmanian top management teams and strategic planning (Teams n=20)

			Correlations											
			Size	Location	Education and Training (Average)	Education and Training (Highest)	Management education and training (Average)	Management education and training (Highest)	Strategic planning	Internal orientation	External orientation	Functional integration	Use of techniques	Key personnel involvement
Spearman's rho	Size	Correlation Coefficient	1.000	-.191	-.340	-.154	.132	.266	.126	-.065	.424	-.043	.323	.012
		Sig. (2-tailed)		.420	.142	.516	.580	.256	.598	.785	.062	.857	.165	.960
		N	20	20	20	20	20	20	20	20	20	20	20	20
	Location	Correlation Coefficient	-.191	1.000	.082	-.069	.025	-.111	-.049	.051	-.183	.091	.070	.203
		Sig. (2-tailed)	.420		.730	.774	.915	.640	.837	.831	.439	.704	.768	.392
		N	20	20	20	20	20	20	20	20	20	20	20	
	Education and Training (Average)	Correlation Coefficient	-.340	.082	1.000	.960**	.118	.104	.034	.406	-.151	.113	.054	-.150
		Sig. (2-tailed)	.142	.730		.000	.620	.661	.888	.076	.526	.634	.822	.529
		N	20	20	20	20	20	20	20	20	20	20	20	
	Education and Training (Highest)	Correlation Coefficient	-.154	-.069	.960**	1.000	.213	.260	.037	.397	-.086	.099	.036	-.177
		Sig. (2-tailed)	.516	.774	.000		.366	.267	.878	.083	.717	.678	.879	.455
		N	20	20	20	20	20	20	20	20	20	20	20	
	Management education and training (Average)	Correlation Coefficient	.132	.025	.118	.213	1.000	.960**	.006	.170	-.148	.150	.025	-.224
		Sig. (2-tailed)	.580	.915	.620	.366		.000	.981	.474	.534	.528	.916	.342
		N	20	20	20	20	20	20	20	20	20	20	20	
	Management education and training (Highest)	Correlation Coefficient	.266	-.111	.104	.260	.960**	1.000	.013	.168	-.064	.145	-.004	-.239
		Sig. (2-tailed)	.256	.640	.661	.267	.000		.956	.479	.787	.542	.986	.311
		N	20	20	20	20	20	20	20	20	20	20	20	
	Strategic planning	Correlation Coefficient	.126	-.049	.034	.037	.006	.013	1.000	.490*	.780**	.861**	.814**	.546*
		Sig. (2-tailed)	.598	.837	.888	.878	.981	.956		.028	.000	.000	.000	.013
		N	20	20	20	20	20	20	20	20	20	20	20	
	Internal orientation	Correlation Coefficient	-.065	.051	.406	.397	.170	.168	.490*	1.000	.175	.470*	.522*	.069
		Sig. (2-tailed)	.785	.831	.076	.083	.474	.479	.028		.459	.036	.018	.773
		N	20	20	20	20	20	20	20	20	20	20	20	
	External orientation	Correlation Coefficient	.424	-.183	-.151	-.086	-.148	-.064	.780**	.175	1.000	.463*	.700**	.292
		Sig. (2-tailed)	.062	.439	.526	.717	.534	.787	.000	.459		.040	.001	.212
		N	20	20	20	20	20	20	20	20	20	20	20	
	Functional integration	Correlation Coefficient	-.043	.091	.113	.099	.150	.145	.861**	.470*	.463*	1.000	.610**	.556*
		Sig. (2-tailed)	.857	.704	.634	.678	.528	.542	.000	.036	.040		.004	.011
		N	20	20	20	20	20	20	20	20	20	20	20	
	Use of techniques	Correlation Coefficient	.323	.070	.054	.036	.025	-.004	.814**	.522*	.700**	.610**	1.000	.234
		Sig. (2-tailed)	.165	.768	.822	.879	.916	.986	.000	.018	.001	.004		.322
		N	20	20	20	20	20	20	20	20	20	20	20	
	Key personnel involvement	Correlation Coefficient	.012	.203	-.150	-.177	-.224	-.239	.546*	.069	.292	.556*	.234	1.000
		Sig. (2-tailed)	.960	.392	.529	.455	.342	.311	.013	.773	.212	.011	.322	
		N	20	20	20	20	20	20	20	20	20	20	20	

** . Correlation is significant at the .01 level (2-tailed).

* . Correlation is significant at the .05 level (2-tailed).

Appendix 13 Aggregate correlations (Spearman) between education and training levels of Victorian top management teams and strategic planning (Teams n=117)

			Correlations											
			Size	Location	Education and Training (Average)	Education and Training (Highest)	Management education and training (Average)	Management education and training (Highest)	Strategic planning	Internal orientation	External orientation	Functional coverage	Use of techniques	Key personnel involvement
Spearman's rho	Size	Correlation Coefficient	1.000	.086	.042	.191*	.345**	.477**	.135	-.027	.150	-.007	.081	.220*
		Sig. (2-tailed)		.301	.650	.039	.000	.000	.148	.772	.106	.949	.384	.017
		N	117	117	117	117	117	117	117	117	117	117	117	117
	Location	Correlation Coefficient	.096	1.000	-.208*	-.311**	.041	-.065	.029	.021	.082	.014	.054	-.048
		Sig. (2-tailed)	.301		.024	.001	.658	.488	.753	.823	.378	.885	.565	.605
		N	117	117	117	117	117	117	117	117	117	117	117	117
	Education and Training (Average)	Correlation Coefficient	.042	-.208*	1.000	.780**	.224*	.126	.044	-.045	.008	.081	.013	.138
		Sig. (2-tailed)	.650	.024		.000	.015	.177	.639	.628	.933	.385	.890	.139
		N	117	117	117	117	117	117	117	117	117	117	117	117
	Education and Training (Highest)	Correlation Coefficient	.191*	-.311**	.780**	1.000	.258**	.372**	-.050	-.078	-.116	.045	-.044	.041
		Sig. (2-tailed)	.039	.001	.000		.005	.000	.595	.406	.211	.629	.636	.660
		N	117	117	117	117	117	117	117	117	117	117	117	117
	Management education and training (Average)	Correlation Coefficient	.345**	.041	.224*	.258**	1.000	.861**	.079	.018	.132	-.050	.038	.091
		Sig. (2-tailed)	.000	.658	.015	.005		.000	.400	.850	.157	.589	.682	.331
		N	117	117	117	117	117	117	117	117	117	117	117	117
Management education and training (Highest)	Correlation Coefficient	.477**	-.065	.126	.372**	.861**	1.000	.006	.002	.036	-.074	.000	.001	
	Sig. (2-tailed)	.000	.488	.177	.000	.000		.945	.981	.700	.428	.997	.990	
	N	117	117	117	117	117	117	117	117	117	117	117	117	
Strategic planning	Correlation Coefficient	.135	.029	.044	-.050	.079	.006	1.000	.545**	.899**	.771**	.768**	.755**	
	Sig. (2-tailed)	.148	.753	.639	.595	.400	.945		.000	.000	.000	.000	.000	
	N	117	117	117	117	117	117	117	117	117	117	117	117	
Internal orientation	Correlation Coefficient	-.027	.021	-.045	-.078	.018	.002	.545**	1.000	.398**	.396**	.324**	.250**	
	Sig. (2-tailed)	.772	.823	.628	.406	.850	.981	.000		.000	.000	.000	.007	
	N	117	117	117	117	117	117	117	117	117	117	117	117	
External orientation	Correlation Coefficient	.150	.082	.008	-.116	.132	.036	.899**	.398**	1.000	.637**	.567**	.613**	
	Sig. (2-tailed)	.106	.378	.933	.211	.157	.700	.000	.000		.000	.000	.000	
	N	117	117	117	117	117	117	117	117	117	117	117	117	
Functional coverage	Correlation Coefficient	-.007	.014	.081	.045	-.050	-.074	.771**	.396**	.637**	1.000	.595**	.497**	
	Sig. (2-tailed)	.949	.885	.385	.629	.589	.428	.000	.000	.000		.000	.000	
	N	117	117	117	117	117	117	117	117	117	117	117	117	
Use of techniques	Correlation Coefficient	.081	.054	.013	-.044	.038	.000	.768**	.324**	.567**	.595**	1.000	.482**	
	Sig. (2-tailed)	.384	.565	.890	.636	.682	.997	.000	.000	.000	.000		.000	
	N	117	117	117	117	117	117	117	117	117	117	117	117	
Key personnel involvement	Correlation Coefficient	.220*	-.048	.138	.041	.091	.001	.755**	.250**	.613**	.497**	.482**	1.000	
	Sig. (2-tailed)	.017	.605	.139	.660	.331	.990	.000	.007	.000	.000	.000		
	N	117	117	117	117	117	117	117	117	117	117	117	117	

*. Correlation is significant at the .05 level (2-tailed).

** Correlation is significant at the .01 level (2-tailed).

Appendix 14 Summarised bivariate regression statistics for relationships between highest education and training levels of top management teams and measures of strategic planning

	R	R Square	Adjusted R square	Std. Error of the Estimate	Sum of Squares	df	Mean Square	F	Sig.	Unst. Coeff.	Std. Error	St. Coeff.	t	Sig.
Highest education and training and internal orientation	.014	.000	-.007	.4724	5.68E	1	5.68E	.025	.873	4.31E	.027	.014	.160	.873
Highest education and training and external orientation	.102	.010	.003	.7572	.808	1	.808	1.409	.237	-5.13E	.043	-.102	-1.187	.237
Highest education and training and functional integration	.009	.000	-.007	.6686	5.22E	1	5.22E	.012	.914	-4.13E	.038	-.009	-.108	.914
Highest education and training and use of techniques	.010	.000	-.007	1.02	1.36E	1	1.36E	.013	.909	6.67E	.058	.010	.114	.909
Highest education and training and key personnel involvement	.029	.001	-.007	.8141	7.35E	1	7.35E	.111	.740	-1.55E	.047	-.029	-.333	.740

Appendix 15 Summarised bivariate regression statistics for relationships between average education and training levels of top management teams and measures of strategic planning

	R	R Square	Adjusted R square	Std. Error of the Estimate	Sum of Squares	df	Mean Square	F	Sig.	Unst. Coeff.	Std. Error	St. Coeff	t	Sig.
Average education and training and internal orientation	.017	.000	-.007	.4724	9.114E	1	9.114E	.041	.840	5.55E	.027	.017	.202	.840
Average education and training and external orientation	.050	.002	-.005	.7602	.195	1	.195	.338	.562	-2.6E	.044	-.050	-.582	.562
Average education and training and functional integration	.024	.001	-.007	.6684	3.560E	1	3.560E	.080	.778	1.10E	.039	.024	.282	.778
Average education and training and use of techniques	.031	.001	-.006	1.02	.135	1	.135	.130	.719	2.14E	.059	.031	.360	.719
Average education and training and key personnel involvement	.005	.000	-.007	.8145	2.58E	1	2.58E	.004	.950	2.96E	.047	.005	.062	.950

Appendix 16 Summarised bivariate regression statistics for relationships between highest management-specific education and training levels of top management teams and measures of strategic planning

	R	R Square	Adjusted R square	Std. Error of the Estimate	Sum of Squares	df	Mean Square	F	Sig.	Unst. Coeff	Std. Error	St. Coeff	t	Sig.
Highest management education and training and internal orientation	.045	.002	-.005	.4719	6.21E	1	6.21E	.279	.598	6.14E	.012	.045	.528	.598
Highest management education and training and external orientation	.061	.004	-.004	.7597	.287	1	.287	.498	.482	1.32E	.019	.061	.706	.482
Highest management education and training and functional integration	.036	.001	-.006	.6682	7.61E	1	7.61E	.171	.680	-6.80E	.016	-.036	-.413	.680
Highest management education and training and use of techniques	.070	.005	-.003	1.0180	.680	1	.680	.657	.419	2.033E	.025	.070	.810	.419
Highest management education and training and key personnel involvement	.040	.002	-.006	.8138	.143	1	.143	.216	.643	9.32E	.020	.040	.465	.643

Appendix 17 Summarised bivariate regression statistics for relationships between average management-specific education and training levels of top management teams and measures of strategic planning

	R	R Square	Adjusted R square	Std. Error of the Estimate	Sum of Squares	df	Mean Square	F	Sig.	Unst. Coeff.	Std. Error	St. Coeff	t	Sig.
Average management education and training and internal orientation	.049	.002	-.005	.4719	7.30E	1	7.30E	.328	.568	8.17E	.014	.049	.573	.568
Average management education and training and external orientation	.130	.017	.010	.7546	1.328	1	1.328	2.331	.129	3.48E	.023	.130	1.527	.129
Average management education and training and functional integration	.036	.001	-.006	.6681	7.954E	1	7.954E	.178	.674	8.53E	.020	.036	.422	.674
Average management education and training and use of techniques	.120	.014	.007	1.01	2.012	1	2.012	1.960	.164	4.29E	.031	.120	1.4	.164
Average management education and training and key personnel involvement	.131	.017	.010	.8075	1.526	1	1.526	2.340	.128	3.74E	.024	.131	1.530	.128

Appendix 18

Aggregate correlations (Spearman) between strategic planning and organisational performance (Teams n=137)

Correlations

			Size	Location	Strategic planning	Internal orientation	External orientation	Functional integration	Use of techniques	Key personnel involvement	Organisation effectiveness	Objective fulfilment	Job satisfaction	Central life interests
Spearman's rho	Size	Correlation Coefficient	1.000	-.069	.150	-.014	-.202*	-.030	.129	.207*	-.056	-.058	.264**	.018
		Sig. (2-tailed)		.425	.080	.872	.018	.729	.132	.015	.518	.500	.002	.831
		N	137	137	137	137	137	137	137	137	137	137	137	137
	Location	Correlation Coefficient	-.069	1.000	-.034	-.032	-.009	.043	-.038	-.102	-.059	-.066	-.082	-.039
		Sig. (2-tailed)	.425		.696	.708	.915	.617	.657	.235	.491	.315	.339	.654
		N	137	137	137	137	137	137	137	137	137	137	137	137
	Strategic planning	Correlation Coefficient	.150	-.034	1.000	.528**	.897**	.773**	.774**	.723**	.723**	.092	.274**	.117
		Sig. (2-tailed)	.080	.696		.000	.000	.000	.000	.000	.000	.284	.001	.173
		N	137	137	137	137	137	137	137	137	137	137	137	137
	Internal orientation	Correlation Coefficient	-.014	-.032	.528**	1.000	.371**	.403**	.223**	.043	.043	.099	.046	.066
		Sig. (2-tailed)	.872	.708	.000		.000	.000	.000	.009	.615	.249	.591	.446
		N	137	137	137	137	137	137	137	137	137	137	137	137
	External orientation	Correlation Coefficient	.202*	-.009	.897**	.371**	1.000	.608**	.588**	.572**	.572**	.058	.275**	.129
		Sig. (2-tailed)	.018	.915	.000	.000		.000	.000	.000	.000	.500	.001	.132
		N	137	137	137	137	137	137	137	137	137	137	137	137
Functional integration	Correlation Coefficient	-.030	.043	.773**	.403**	.608**	1.000	.577**	.487**	.106	.290**	.147	.109	
	Sig. (2-tailed)	.729	.617	.000	.000	.000		.000	.000	.216	.001	.087	.204	
	N	137	137	137	137	137	137	137	137	137	137	137	137	
Use of techniques	Correlation Coefficient	.129	-.038	.774**	.364**	.588**	.577**	1.000	.430**	.049	.088	.096	.154	
	Sig. (2-tailed)	.132	.657	.000	.000	.000	.000		.000	.568	.308	.262	.073	
	N	137	137	137	137	137	137	137	137	137	137	137	137	
Key personnel involvement	Correlation Coefficient	.207*	-.102	.723**	.223**	.572**	.487**	.430**	1.000	.062	.244**	.044	.093	
	Sig. (2-tailed)	.015	.235	.000	.009	.000	.000	.000		.471	.004	.611	.279	
	N	137	137	137	137	137	137	137	137	137	137	137	137	
Organisation effectiveness	Correlation Coefficient	-.056	-.059	.092	.043	.058	.106	.049	.430**	1.000	.062	.367**	.151	
	Sig. (2-tailed)	.518	.491	.284	.615	.500	.216	.566	.471		.000	.078	.522	
	N	137	137	137	137	137	137	137	137	137	137	137	137	
Objective fulfilment	Correlation Coefficient	-.058	-.066	.274**	.099	.275**	.290**	.088	.244**	.367**	1.000	.223**	.018	
	Sig. (2-tailed)	.500	.315	.001	.249	.001	.001	.308	.004	.000		.009	.848	
	N	137	137	137	137	137	137	137	137	137	137	137	137	
Job satisfaction	Correlation Coefficient	.264**	-.082	.117	.046	.129	.147	.096	.044	.151	.223**	1.000	.168*	
	Sig. (2-tailed)	.002	.339	.173	.591	.132	.087	.262	.611	.078	.009		.050	
	N	137	137	137	137	137	137	137	137	137	137	137	137	
Central life interests	Correlation Coefficient	.018	-.039	.174*	.066	.229**	.109	.154	.063	.065	.018	.168*	1.000	
	Sig. (2-tailed)	.831	.654	.042	.446	.007	.204	.073	.279	.522	.848	.050		
	N	137	137	137	137	137	137	137	137	137	137	137	137	

*. Correlation is significant at the .05 level (2-tailed).

** Correlation is significant at the .01 level (2-tailed).

Appendix 19 *Aggregate correlations (Spearman) between strategic planning and organisational performance in Tasmanian organisations (Teams n=20)*

Correlations

			Size	Location	Strategic planning	Internal orientation	External orientation	Functional integration	Use of techniques	Key personnel involvement	Organisation effectiveness	Objective fulfilment	Job satisfaction	Central life interests
Spearman's rho	Size	Correlation Coefficient	1.000	-.191	.128	-.065	.424	-.043	.323	.012	-.443	-.259	.349	.012
		Sig. (2-tailed)	.	.420	.598	.785	.062	.857	.165	.960	.050	.270	.132	.961
		N	20	20	20	20	20	20	20	20	20	20	20	20
	Location	Correlation Coefficient	-.191	1.000	-.049	.051	-.183	.091	.070	.203	.203	-.134	-.323	.136
		Sig. (2-tailed)	.420	.	.837	.831	.439	.704	.768	.392	.390	.575	.165	.569
		N	20	20	20	20	20	20	20	20	20	20	20	20
	Strategic planning	Correlation Coefficient	.128	-.049	1.000	.490*	.780**	.861**	.814**	.546*	-.045	.365	.223	-.181
		Sig. (2-tailed)	.598	.837	.	.028	.000	.000	.000	.013	.850	.114	.344	.444
		N	20	20	20	20	20	20	20	20	20	20	20	20
	Internal orientation	Correlation Coefficient	-.065	.051	.490*	1.000	.175	.470*	.522*	.069	.015	.052	.281	.313
		Sig. (2-tailed)	.785	.831	.028	.	.459	.036	.018	.773	.950	.828	.231	.179
		N	20	20	20	20	20	20	20	20	20	20	20	20
	External orientation	Correlation Coefficient	.424	-.183	.780**	.175	1.000	.463*	.700**	.292	-.302	.129	.270	-.301
		Sig. (2-tailed)	.062	.439	.000	.459	.	.040	.001	.212	.196	.587	.250	.197
		N	20	20	20	20	20	20	20	20	20	20	20	20
	Functional integration	Correlation Coefficient	-.043	.091	.861**	.470*	.463*	1.000	.610**	.556*	.040	.419	.233	-.142
		Sig. (2-tailed)	.857	.704	.000	.036	.040	.	.004	.011	.866	.068	.322	.552
		N	20	20	20	20	20	20	20	20	20	20	20	20
	Use of techniques	Correlation Coefficient	.323	.070	.814**	.522*	.700**	.610**	1.000	.234	-.116	.168	.147	.060
		Sig. (2-tailed)	.165	.768	.000	.018	.001	.004	.	.322	.628	.484	.536	.801
		N	20	20	20	20	20	20	20	20	20	20	20	20
	Key personnel involvement	Correlation Coefficient	.012	.203	.546*	.069	.292	.556*	.234	1.000	.151	.364	-.133	-.111
		Sig. (2-tailed)	.960	.392	.013	.773	.212	.011	.322	.011	.524	.114	.578	.642
		N	20	20	20	20	20	20	20	20	20	20	20	20
	Organisation effectiveness	Correlation Coefficient	-.443	.203	-.045	.015	-.302	.040	-.116	.151	1.000	.511*	-.537*	.030
		Sig. (2-tailed)	.050	.390	.850	.950	.196	.866	.628	.524	.	.021	.015	.900
		N	20	20	20	20	20	20	20	20	20	20	20	20
	Objective fulfilment	Correlation Coefficient	-.259	-.134	.365	.052	.129	.419	.168	.364	.511*	1.000	.078	-.365
		Sig. (2-tailed)	.270	.575	.114	.828	.587	.066	.484	.114	.021	.	.744	.114
		N	20	20	20	20	20	20	20	20	20	20	20	20
	Job satisfaction	Correlation Coefficient	.349	-.323	.223	.281	.270	.233	.147	-.133	-.537*	.078	1.000	-.262
		Sig. (2-tailed)	.132	.165	.344	.231	.250	.322	.536	.578	.015	.744	.	.264
		N	20	20	20	20	20	20	20	20	20	20	20	20
	Central life interests	Correlation Coefficient	.012	.136	-.181	.313	-.301	-.142	.060	-.111	.030	-.365	-.262	1.000
		Sig. (2-tailed)	.961	.569	.444	.179	.197	.552	.801	.642	.900	.114	.264	.
		N	20	20	20	20	20	20	20	20	20	20	20	20

*. Correlation is significant at the .05 level (2-tailed).

**. Correlation is significant at the .01 level (2-tailed).

Appendix 20 Aggregate correlations (Spearman) between strategic planning and organisational performance in Victorian organisations (Teams n=117)

		Correlations												
		Size	Location	Strategic planning	Internal orientation	External orientation	Functional coverage	Use of techniques	Key personnel involvement	Organisation effectiveness	Objective fulfilment	Job satisfaction	Central life interests	
Spearman's rho	Size	Correlation Coefficient	1.000	.086	.135	-.027	.150	-.007	.081	.220*	.020	-.091	.253**	-.057
		Sig. (2-tailed)		.301	.148	.772	.106	.943	.384	.017	.827	.329	.006	.540
		N	117	117	117	117	117	117	117	117	117	117	117	117
	Location	Correlation Coefficient	.086	1.000	.029	.021	.082	.014	.054	-.048	-.138	-.127	-.040	.063
		Sig. (2-tailed)	.301		.753	.823	.378	.885	.565	.605	.138	.173	.689	.500
		N	117	117	117	117	117	117	117	117	117	117	117	117
	Strategic planning	Correlation Coefficient	.135	.029	1.000	.545**	.899**	.771**	.768**	.755**	.124	.188*	.090	.194*
		Sig. (2-tailed)	.148	.753		.000	.000	.000	.000	.000	.182	.043	.332	.036
		N	117	117	117	117	117	117	117	117	117	117	117	117
	Internal orientation	Correlation Coefficient	-.027	.021	.545**	1.000	.398**	.396**	.324**	.250**	.053	.048	-.002	.037
		Sig. (2-tailed)	.772	.823	.000		.000	.000	.000	.007	.573	.605	.981	.692
		N	117	117	117	117	117	117	117	117	117	117	117	117
	External orientation	Correlation Coefficient	.150	.082	.899**	.398**	1.000	.637**	.567**	.613**	.132	.232*	.081	.258**
		Sig. (2-tailed)	.106	.378	.000	.000		.000	.000	.000	.155	.012	.384	.005
	N	117	117	117	117	117	117	117	117	117	117	117	117	
Functional coverage	Correlation Coefficient	-.007	.014	.771**	.396**	.637**	1.000	.595**	.497**	.114	.180	.136	.138	
	Sig. (2-tailed)	.943	.885	.000	.000	.000		.000	.000	.220	.052	.142	.138	
	N	117	117	117	117	117	117	117	117	117	117	117	117	
Use of techniques	Correlation Coefficient	.081	.054	.768**	.324**	.567**	.595**	1.000	.482**	.085	.024	.082	.171	
	Sig. (2-tailed)	.384	.565	.000	.000	.000	.000		.000	.360	.798	.380	.066	
	N	117	117	117	117	117	117	117	117	117	117	117	117	
Key personnel involvement	Correlation Coefficient	.220*	-.048	.755**	.250**	.613**	.497**	.482**	1.000	.051	.154	.068	.071	
	Sig. (2-tailed)	.017	.605	.000	.007	.000	.000	.000		.582	.097	.464	.450	
	N	117	117	117	117	117	117	117	117	117	117	117	117	
Organisation effectiveness	Correlation Coefficient	.020	-.138	.124	.053	.132	.114	.085	.051	1.000	.342**	.252**	.060	
	Sig. (2-tailed)	.827	.138	.182	.573	.155	.220	.360	.582		.000	.006	.522	
	N	117	117	117	117	117	117	117	117	117	117	117	117	
Objective fulfilment	Correlation Coefficient	-.091	-.127	.188*	.048	.232*	.180	.024	.154	.342**	1.000	.211*	.041	
	Sig. (2-tailed)	.329	.173	.043	.605	.012	.052	.798	.097	.000		.022	.657	
	N	117	117	117	117	117	117	117	117	117	117	117	117	
Job satisfaction	Correlation Coefficient	.253**	-.040	.090	-.002	.081	.136	.082	.068	.252**	.211*	1.000	.189*	
	Sig. (2-tailed)	.006	.689	.332	.981	.384	.142	.380	.464	.006	.022		.041	
	N	117	117	117	117	117	117	117	117	117	117	117	117	
Central life interests	Correlation Coefficient	-.057	.063	.194*	.037	.258**	.138	.171	.071	.060	.041	.189*	1.000	
	Sig. (2-tailed)	.540	.500	.036	.692	.005	.138	.066	.450	.522	.657	.041		
	N	117	117	117	117	117	117	117	117	117	117	117	117	

*. Correlation is significant at the .05 level (2-tailed).

** Correlation is significant at the .01 level (2-tailed).

Appendix 21 Summarised bivariate regression statistics for relationships between strategic planning and organisational performance

	R	R Square	Adjusted R square	Std. Error of the Estimate	Sum of Squares	df	Mean Square	F	Sig.	Unst. Coeff	Std. Error	St. Coeff	t	Sig
Internal orientation and organisational effectiveness	.027	.001	-.007	.6094	3.574E	1	3.574E	.096	.757	3.44E	.111	.027	.310	.757
Internal orientation and objective fulfilment	.078	.006	-.001	.8105	.540	1	.540	.822	.366	.134	.148	.078	.906	.366
Internal orientation and job satisfaction	.061	.004	-.004	.5253	.137	1	.137	.496	.482	6.74E	.096	.061	.704	.482
Internal orientation and central life interests	.061	.004	-.004	.5039	.128	1	.128	.504	.479	6.52E	.092	.061	.710	.479
External orientation and organisational effectiveness	.114	.013	.006	.6056	.652	1	.652	1.779	.185	9.13E	.068	.114	1.334	.185
External orientation and objective fulfilment	.185	.034	.027	.7990	3.038	1	3.038	4.759	.031	.197	.090	.185	2.181	.031
External orientation and job satisfaction	.140	.020	.012	.5211	.733	1	.733	2.700	.103	9.68E	.059	.140	1.643	.103
External orientation and central life interests	.253	.064	.057	.4885	2.199	1	2.199	9.218	.003	.168	.055	.253	3.036	.033
Functional integration and organisational effectiveness	.135	.018	.011	.6040	.910	1	.910	2.493	.117	.123	.078	.135	1.579	.117
Functional integration and objective fulfilment	.206	.042	.035	.7956	3.769	1	3.769	5.955	.016	.250	.102	.206	2.440	.016
Functional integration and job satisfaction	.138	.019	.012	.5212	.717	1	.717	2.640	.107	.109	.067	.138	1.625	.107
Functional integration and central life interests	.152	.023	.016	.4990	.798	1	.798	3.203	.076	.115	.064	.152	1.790	.076
Use of techniques integration and organisational effectiveness	.091	.008	.001	.6070	.417	1	.417	1.132	.289	5.45E	.051	.091	1.064	.289
Use of techniques and objective fulfilment	.023	.001	-.007	.8127	4.671E	1	4.671E	.071	.791	1.82E	.069	.023	.266	.791
Use of techniques and job satisfaction	.126	.016	.009	.5221	.590	1	.590	2.166	.143	6.48E	.044	.126	1.472	.143
Use of techniques and central life interests	.170	.029	.022	.4975	.995	1	.995	4.018	.047	8.41E	.042	.170	2.005	.047
Key personnel involvement and organisational effectiveness	.061	.004	-.004	.6085	.185	1	.185	.500	.481	4.55E	.064	.061	.707	.481
Key personnel involvement and objective fulfilment	.162	.026	.019	.8022	2.331	1	2.331	3.622	.059	.161	.085	.162	1.903	.059
Key personnel involvement and job satisfaction	.062	.044	-.004	.5253	.142	1	.142	.513	.475	9.98E	.056	.062	.717	.475
Key personnel involvement and central life interests	.140	.020	.012	.4999	.672	1	.672	2.687	.103	8.66E	.053	.140	1.639	.103