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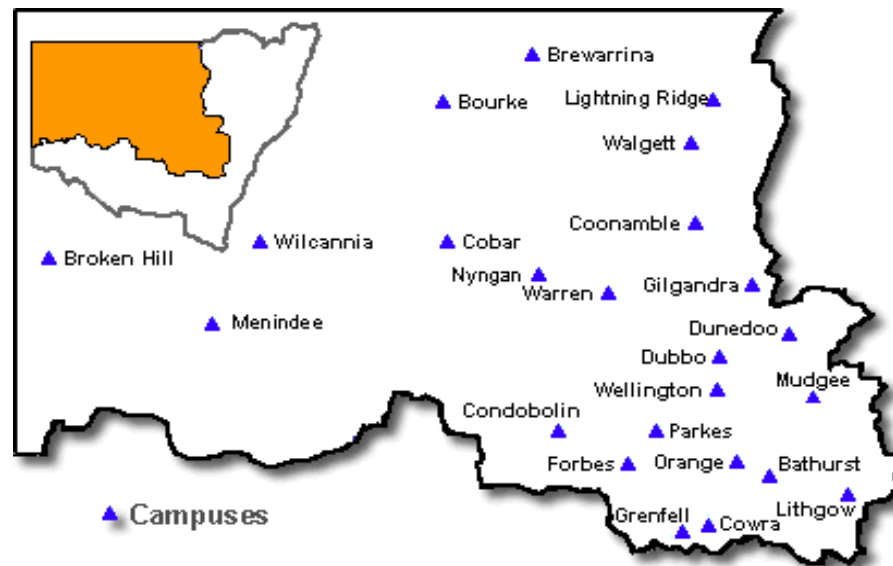
Engaging rural students through participation in a 10 day TVET Outdoor Recreation program

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TAFE NSW Western Institute services more than half the area of NSW, including some of Australia's most isolated and remote communities





Brief History

- Outdoor Recreation was first offered in February, 2003, from the Bathurst campus.
- 8 students, 2 courses completed, using a 1/2 day per week model over three school terms.
- In 2004 this was modified to a 10 day block delivery field based program.
- In 2007 a total of 24 x TVET 10 day programs scheduled, encompassing 32 schools.
- 445 students are to be educated in competencies from the Certificate II in Outdoor Recreation and life skills.



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Some Benefits of Block Delivery

- Students can complete 2 units towards preliminary HSC or HSC year in 10 days!!!
- Western Institute can offer this program to state school students at no cost to them.
- Improved accessibility as students from small schools or small TAFE areas can be combined to create a viable group.
- Students from remote communities now have an opportunity for engagement in an outdoor education experience.



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TVET Outdoor Recreation Research Project

Project Brief

To evaluate the effectiveness of participation in the TVET Outdoor Recreation Block Delivery program in terms of students' personal, social and vocational development.



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Scope of the Project

- Study 1: Employment statistics and current vocational pathways in Outdoor Recreation.
- Study 2: Literature review of Outdoor Recreation outcomes.
- Study 3: TVET Outdoor Recreation program outcomes for students in 2007.
- Study 4: Past student perceptions of the TVET Outdoor Recreation Block Delivery Program (2004-2006).
- Study 5: School staff perceptions of the TVET Outdoor Recreation Block Program (2006-2007).



Employment Orientations

The emerging outdoor profession in Australia is made up of four orientations:

1. Outdoor Education;
2. Outdoor Recreation;
3. Adventure Therapy; and,
4. Outdoor Management/Corporate and Development.

These orientations often overlap because of the existence of areas of commonality (Mann, 2003).



Four Key Learning Pathways

1. Academic (referring to courses and qualifications offered by universities).
2. Activity-based (referring to courses and qualifications offered by activity-based organisations).
3. Adult VET (referring to courses and qualifications offered by non school based RTOs).
4. School VET (referring to courses and qualifications offered by school based RTOs).



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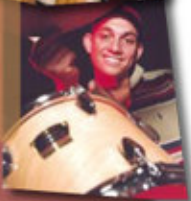
Dominant learning pathways

- VET and activity based learning pathways are the dominant modes in the preparation of Australia's outdoor leaders.
- Literature notes that VET is nationally transferable, easily recognisable and acceptable to employers, employees, land managers, insurers, and government departments. For these reasons it is easy to understand why VET should be popular and marketable.
- The academic pathway struggles to have a strong presence in all states and territories across Australia.
- Literature suggests strategic partnerships between VET and universities or internship programs for the future development of the profession.



What the literature says about the benefits of outdoor programs

- Increased self-concept and self-concept domains such as independence, confidence, self-efficacy, and self-understanding (Neill, 1994; Davidson, 2001; Hattie et al., 1997);
- Enhanced psychological well-being (Neill, 1994);
- Increased ability to overcome challenges (Davidson, 2001);
- Positive impact on leadership competencies (Hattie et al., 1997);
- Enhanced decision-making skills, general problem solving competencies, academic achievement and academic self-concept (Hattie et al., 1997; Marsh & Richards, 1988);
- Increased personality dimensions such as assertiveness, emotional stability, achievement motivation, internal locus of control, and maturity and reductions in aggression and neurosis (Hattie et al., Davidson, 2001);
- Improved mental strength (Davidson, 2001) and interpersonal communication skills (Hattie et al., 1997).



Research indicates the value of programs which:

- provide longer, more sustained outdoor experiences;
- incorporate well designed preparatory and follow up work with participants;
- use a range of learning activities and assessments linked to the school curriculum;
- recognise and emphasise the role of facilitation in the learning process; and,
- develop close links between program aims and program practices.



So what?

The TVET Outdoor Recreation program needs to better understand:

1. the benefits associated with participation in a 10 day TVET outdoor recreation program;
2. the carry over impact to school and home environments; and,
3. the causal factors resulting in the program effects

in an effort to improve participant outcomes through better understanding of **how** and **why** the outcomes occur.



TVET Outdoor Recreation Block Program Student Outcomes in 2007

The purpose of the study was to provide insight into the personal, social and vocational outcomes of participation in a TVET Outdoor Recreation Block Delivery program with the intent of improving the:

- i. design and delivery of the program; and,
- ii. understanding by key stakeholders of the benefits of student participation.



Key Questions

1. What are the life skill impacts on students involved in the program?
2. Does participation improve student retention rates?
3. Does participation influence vocational outcomes for participants?
4. How do participants rate the success of the program in terms of teaching, assessment and overall program satisfaction?



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Employability Skills

Given that school VET programs do not at this time provide a clear vocational pathway for many VET inclined students, it is suggested that greater emphasis could be placed on broader vocational education skills through such programs (NCVER, 2006).

Thus, the transferability of this research is to acknowledge links between Life Effectiveness Skills and Employability Skills for Outdoor Recreation TVET students.



The Employability Skills

- Communication
- Team work
- Problem solving
- Initiative enterprise
- Planning and organising
- Self management
- Learning
- Technology

(Cleary, M; Flynn, R; Thomasson, S., 2006)



Life Effectiveness Skills

1. Time management.
2. Social competence.
3. Achievement motivation.
4. Intellectual flexibility.
5. Task leadership.
6. Emotional control.
7. Active initiative.
8. Self confidence.



Instrumentation

- Life Effectiveness Questionnaire (Neill, Marsh & Richards, 1997).
- Social Validation Questionnaire (Allen-Craig & McLeod, 2004).
- Post Program Evaluation Survey (Smith, 2007).



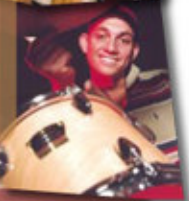
Sample

1. 130 students.
2. 55.4% male and 44.6% female.
3. Mean age - 16.24 years.
4. 21 schools.
5. 9 programs.
6. Year 10 (12.3%); Year 11 (81.5%) and Year 12 (3.8%).
7. 1 April – 31 July, 2007.



Interpreting Effect Size

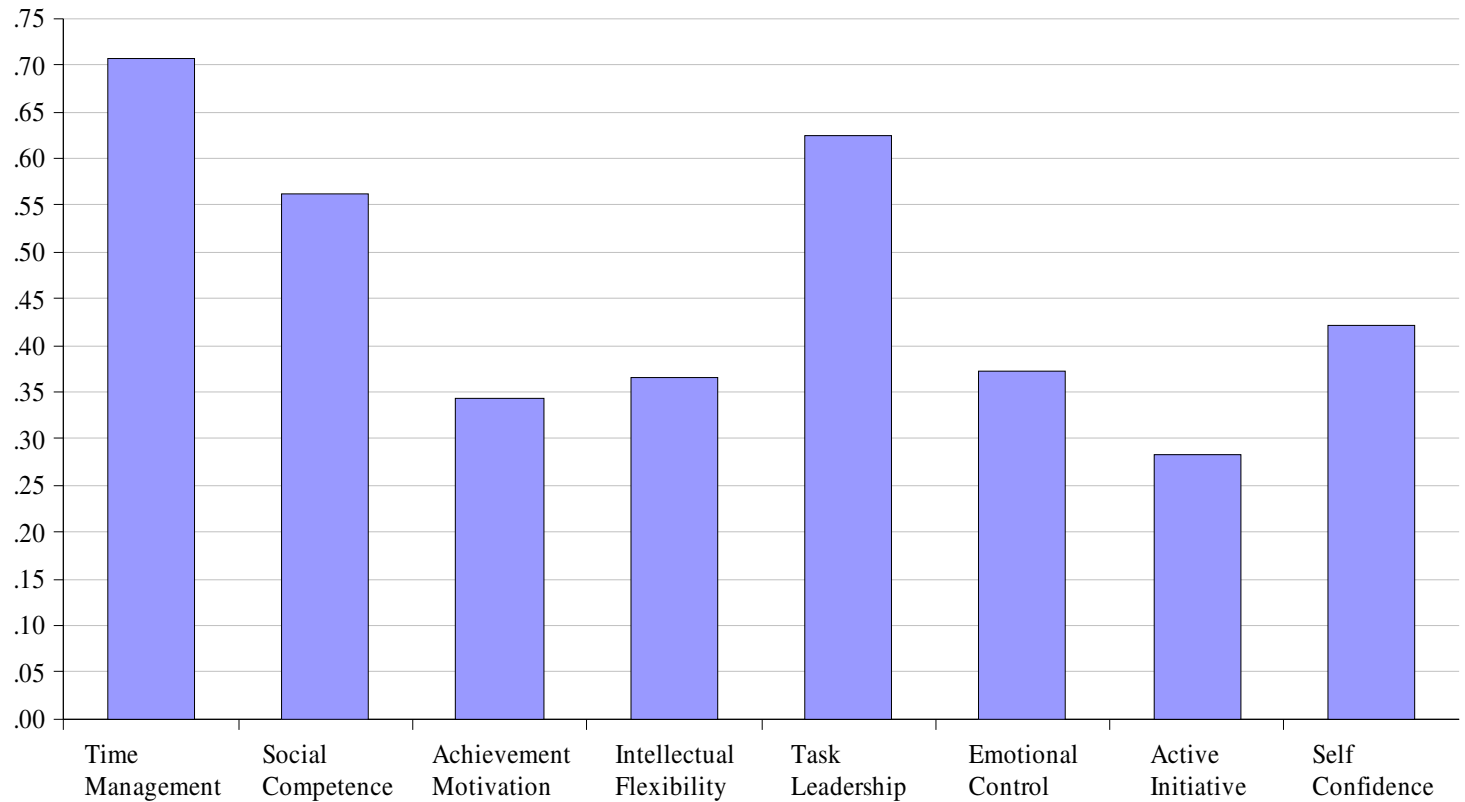
1. The effect size (ES) is reported as a number that represents the ratio of change due to an intervention relative to change due to chance (Cason & Gillis, 1994).
2. Typically an ES of 0.8 is considered to be large, 0.5 as moderate and 0.2 as small (Cohen, 1977).
3. An ES of 0.25 is argued to be educationally significant whereas an ES of 0.5 is clinically significant (Wolf, 1986).



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Effect Size Change

Bar Chart of Factor Effect Sizes Time 1 to 2

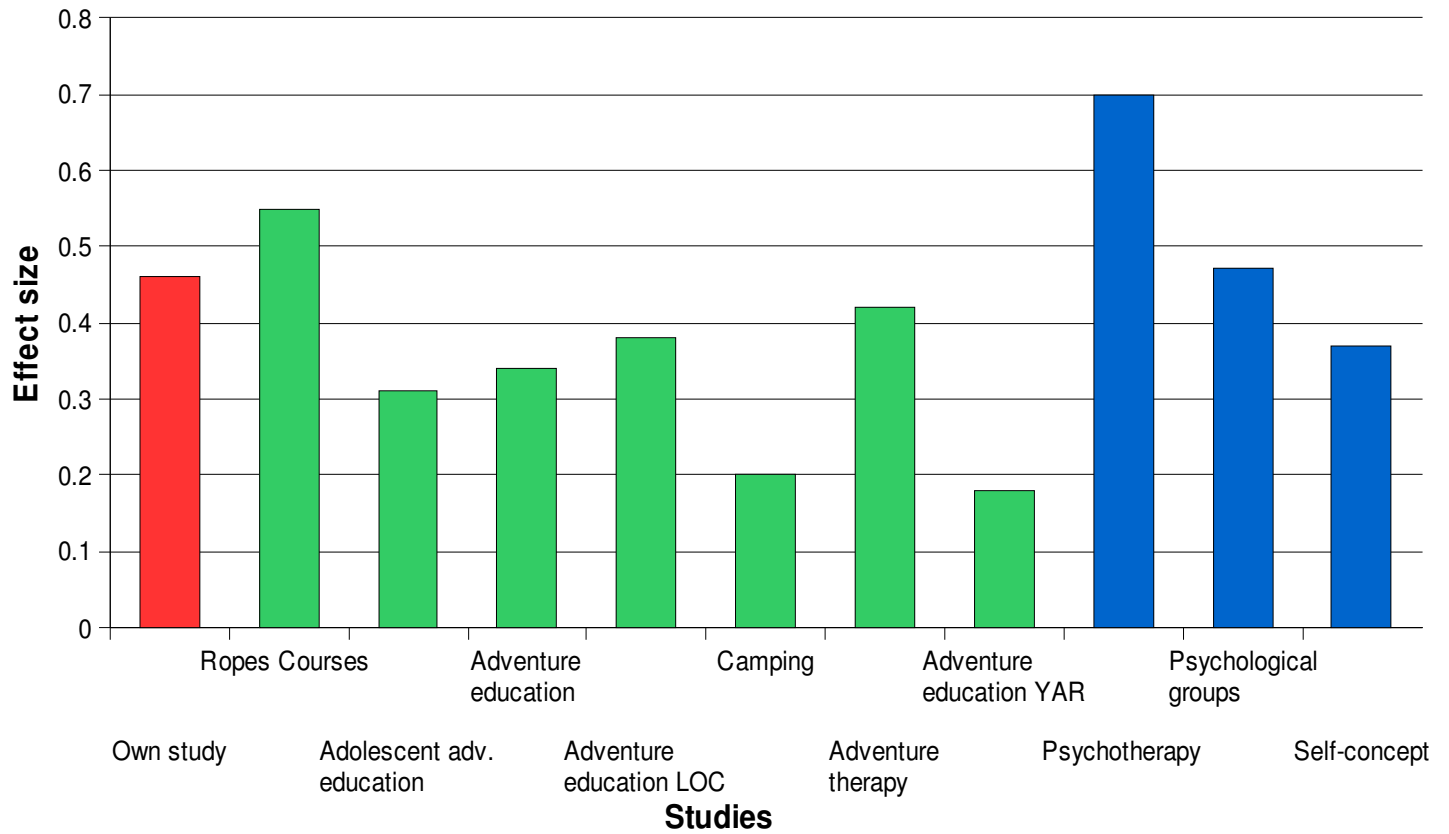




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Effect Size Comparison

Comparison of Achieved Effect Size with Effect Sizes from Other Studies





Does participation improve student retention rates?

- 78.79% of students are committed to completing Year 12 prior to participation.
- 10% of students felt participation changed their attitude towards staying on at school to complete Year 12.



Does participation influence vocational outcomes?

1. 12.24% took part to see what a job in OR would be like.
2. 89.90% indicated that they would consider undertaking vocational training in OR as a result of the program.



Success of the program?

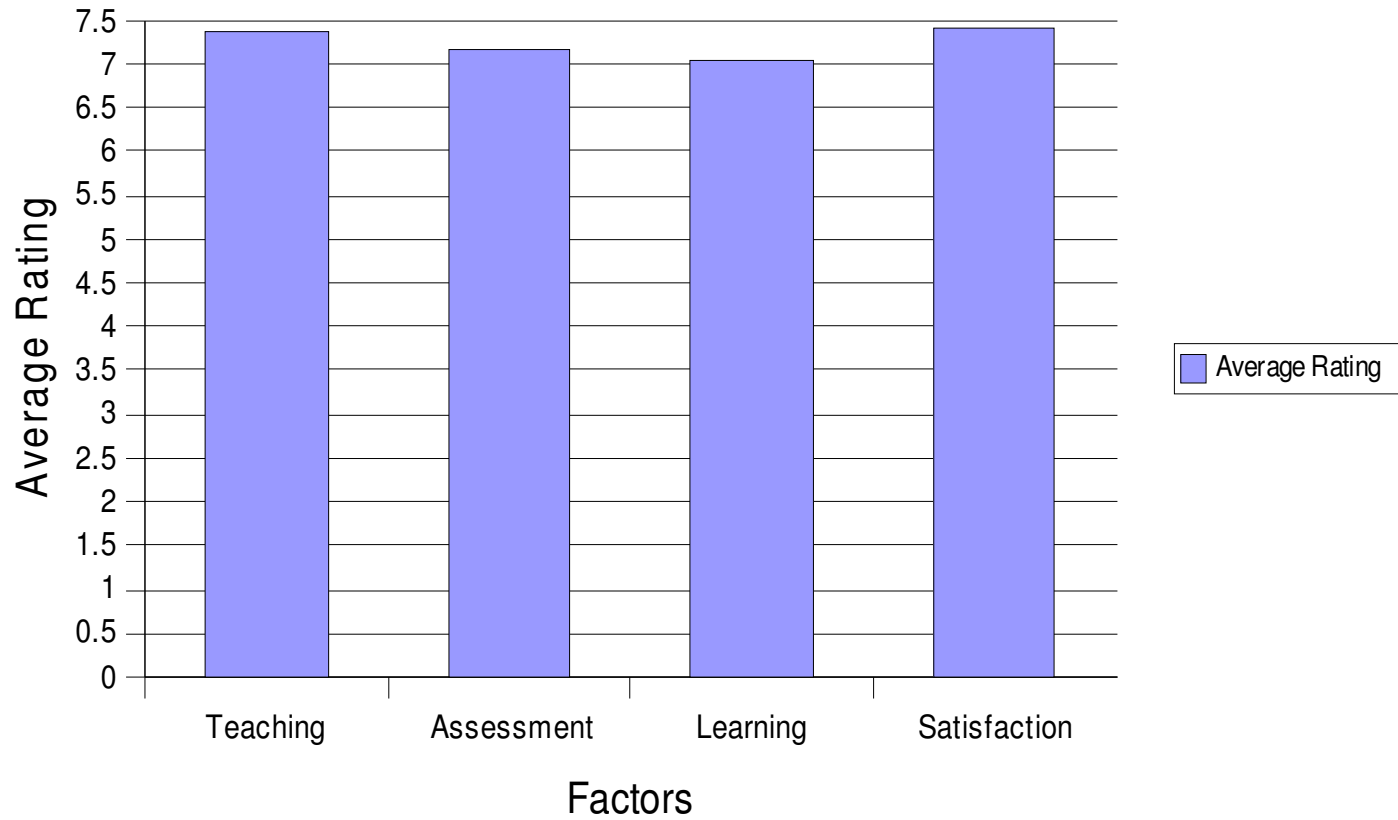
- 91.92% would recommend the program to other students.
- 49.49% want to undertake another program in 2008, and 38.38% would consider doing another program in 2008.
- Overall satisfaction with the program on an eight point scale was 7.42.



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Overall Assessment

Overall Assessment





Implications

- Enhance individual program effectiveness by ensuring student outcomes in terms of life skills and employability skills are consistent with program aims;
- Review program content and logistics to streamline learning outcomes specific to the learning needs of students;
- Provide TVET staff with professional development specific to teaching and assessment;
- Educate key stakeholders in educational institutions as to the effectiveness of participation in a 10 day TVET Outdoor Recreation program;
- Better understand what aspects of a 10 day TVET program are responsible for producing such significant improvements in life effectiveness and employability skills;
- Benchmark data against longitudinal data with a view to understanding the longer term impact of participation on participants.



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Past Student Evaluation

The purpose of this study is to develop and pilot an evaluation tool appropriate for on-going use with past students in assessing the effectiveness of the TVET Outdoor Recreation Block Delivery program in terms of students' personal and social development as well as vocational and educational aspirations, retention rates and employability skills.



Data

1. % increase in participation:
 - 2005 - 324% from 2004
 - 2006 - 50.9% from 2005
 - 2007 - 89.9% from 2006
2. 443 surveys sent out and 101 were returned for a 22.79% response rate.
3. 55.32% males and 44.68% females.
4. Average age of respondent - 17.12 years.
5. 64.89% from 2006, 23.4% from 2005 and 11.7% from 2004.



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Past Student Program Evaluation

The PSPE consisted of 40 multiple choice and attitudinal response questions pertaining to the general evaluation of the TVET program in terms of general program demographics, motivation for participation, attitude towards schooling post participation in a TVET Outdoor Recreation program, additional study since leaving school, current work situation, future vocational aspirations, reflections on the value of the TVET program on current study and/or employment options and one open-ended question pertaining to additional comments regarding improvements to the program. Twenty-one additional questions focussed on student perceptions of the teaching, assessment and learning outcomes of the program.



Did participation improve student retention rates?

- 82.98% of respondents wanted to complete Year 12 prior to participation.
- 43.62% of students felt participation assisted their attitude towards staying in school to complete Year 12.
- 57.50% of the sample were still in school.



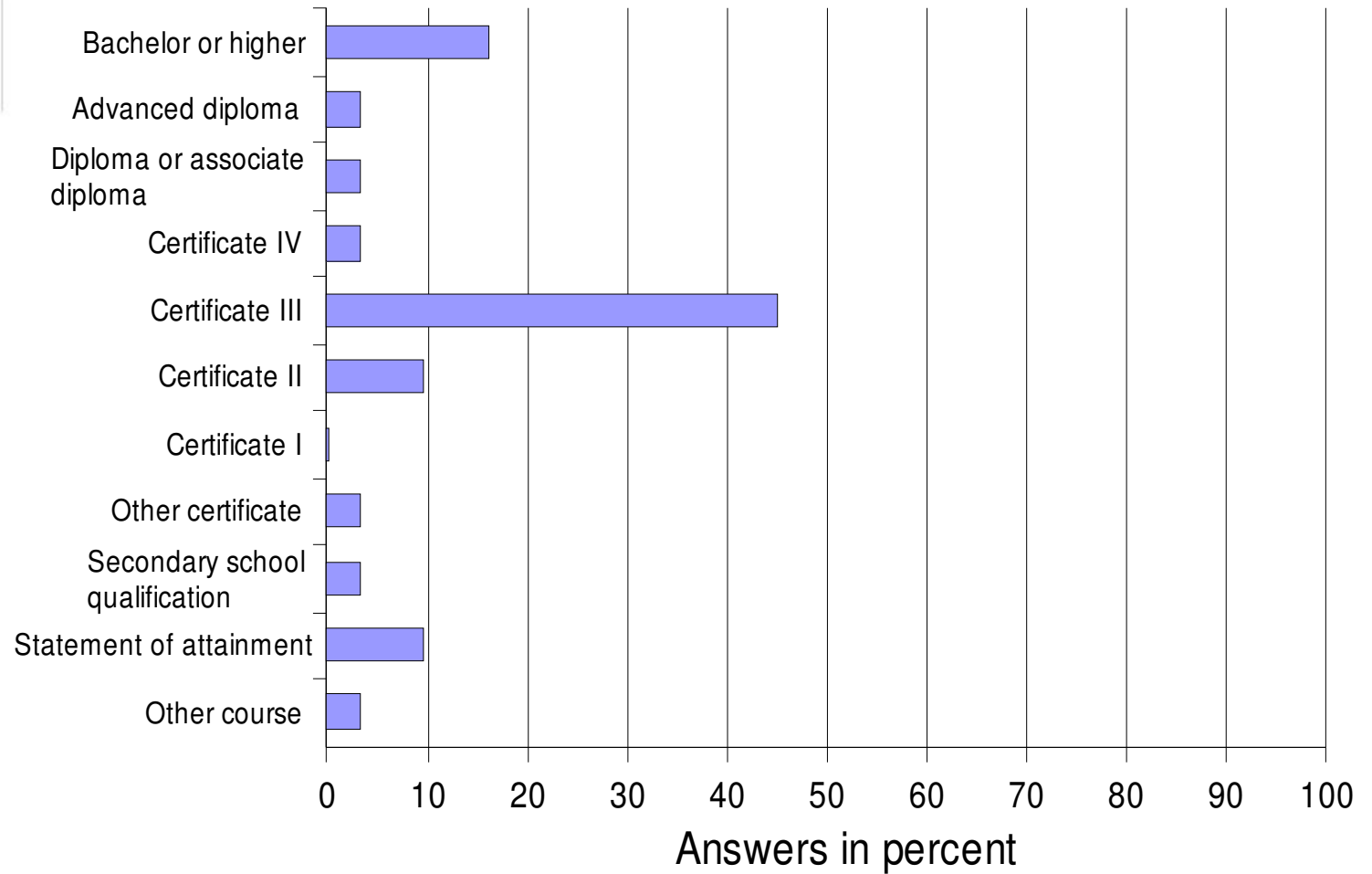
Additional study since leaving school

- 57.5% were still in school;
- 32.97% had left school and had enrolled in further study (75% of whom were still completing that study); and,
- 9.57% had left school but had not enrolled in further study.



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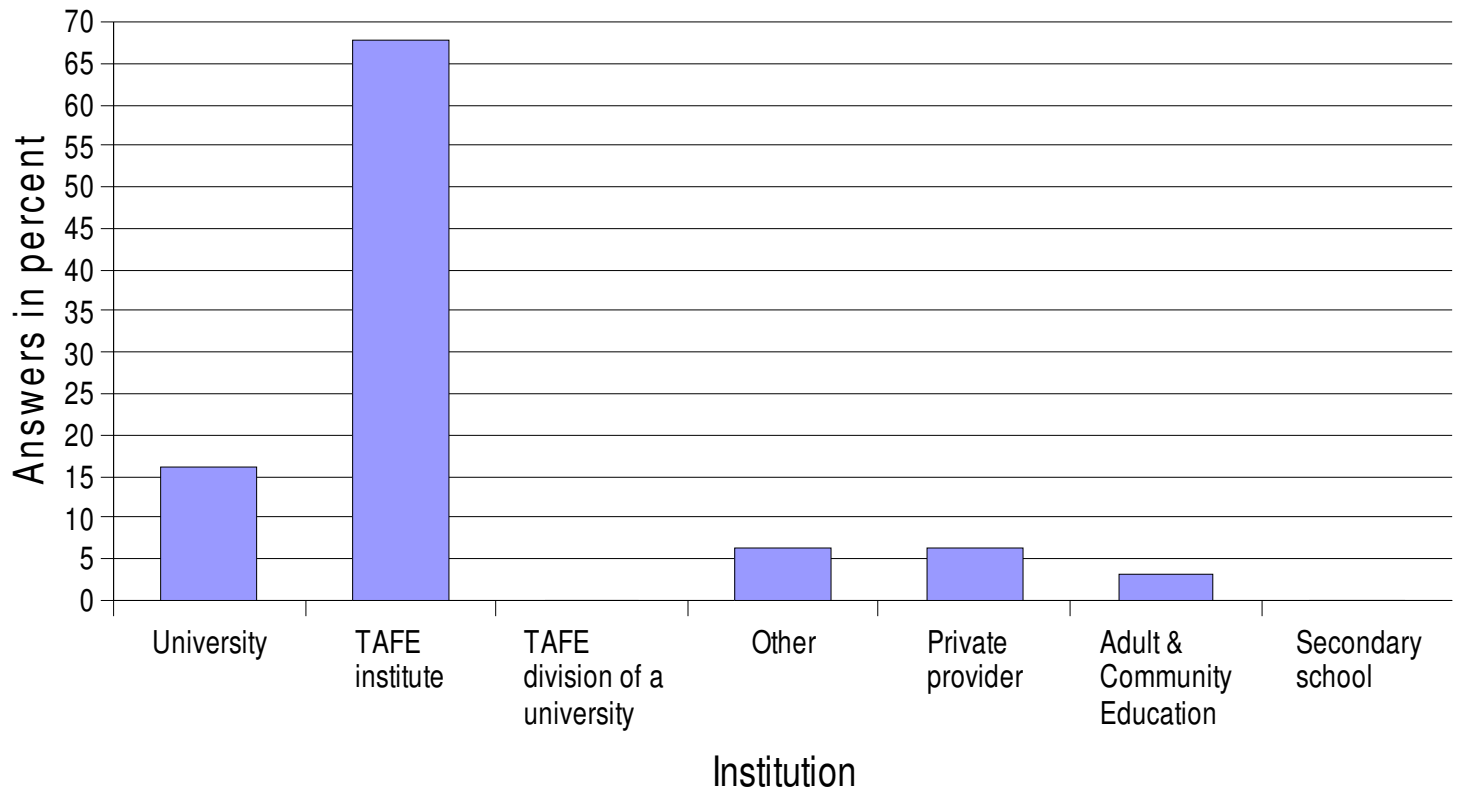
Figure 1: Courses Enrolled in Since Leaving School





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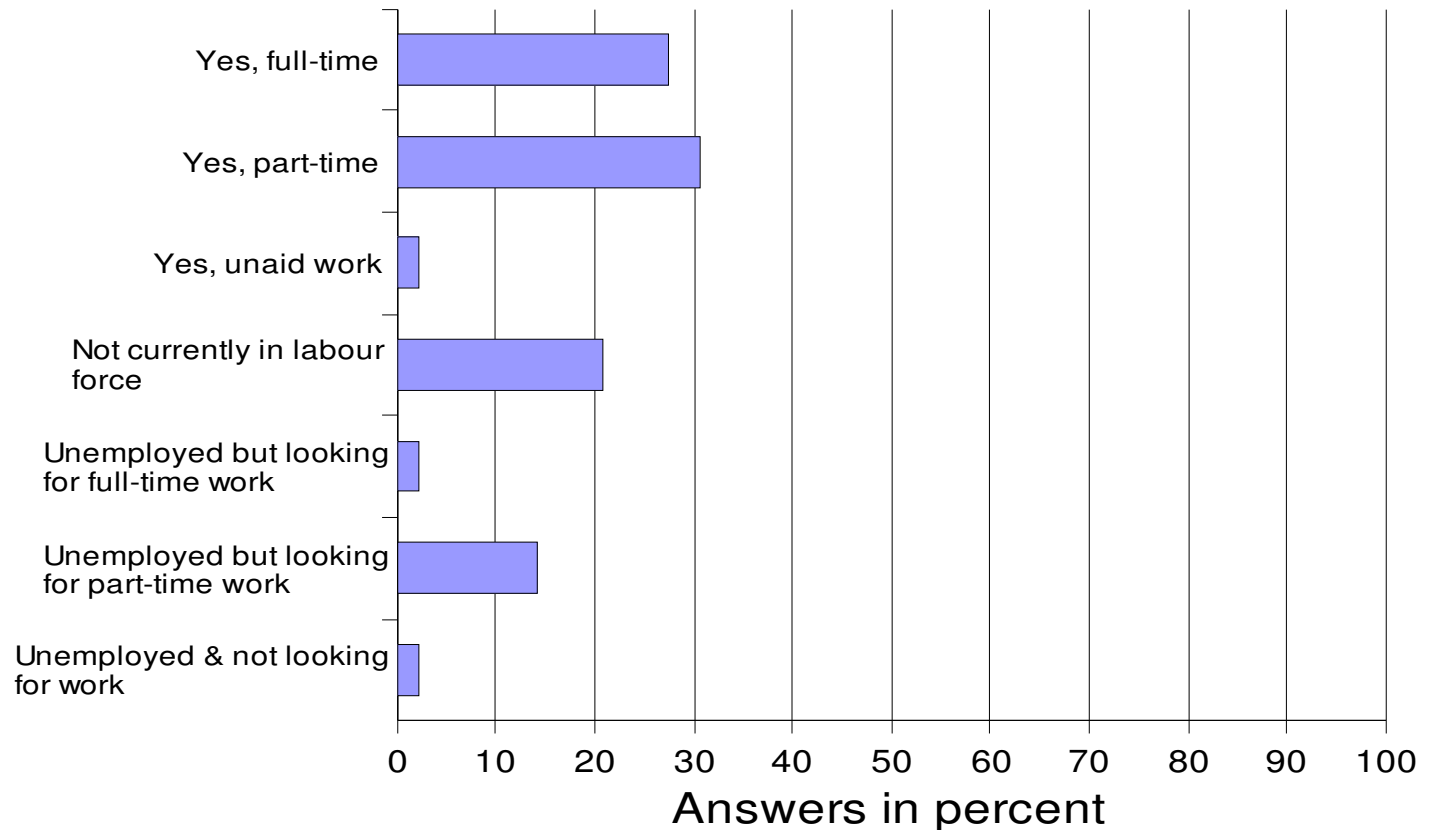
Figure 3: Enrolled Institution





58.51% of respondents are engaged in some form of work

Figure 5: Current Work Status





Motivation to undertake the program?

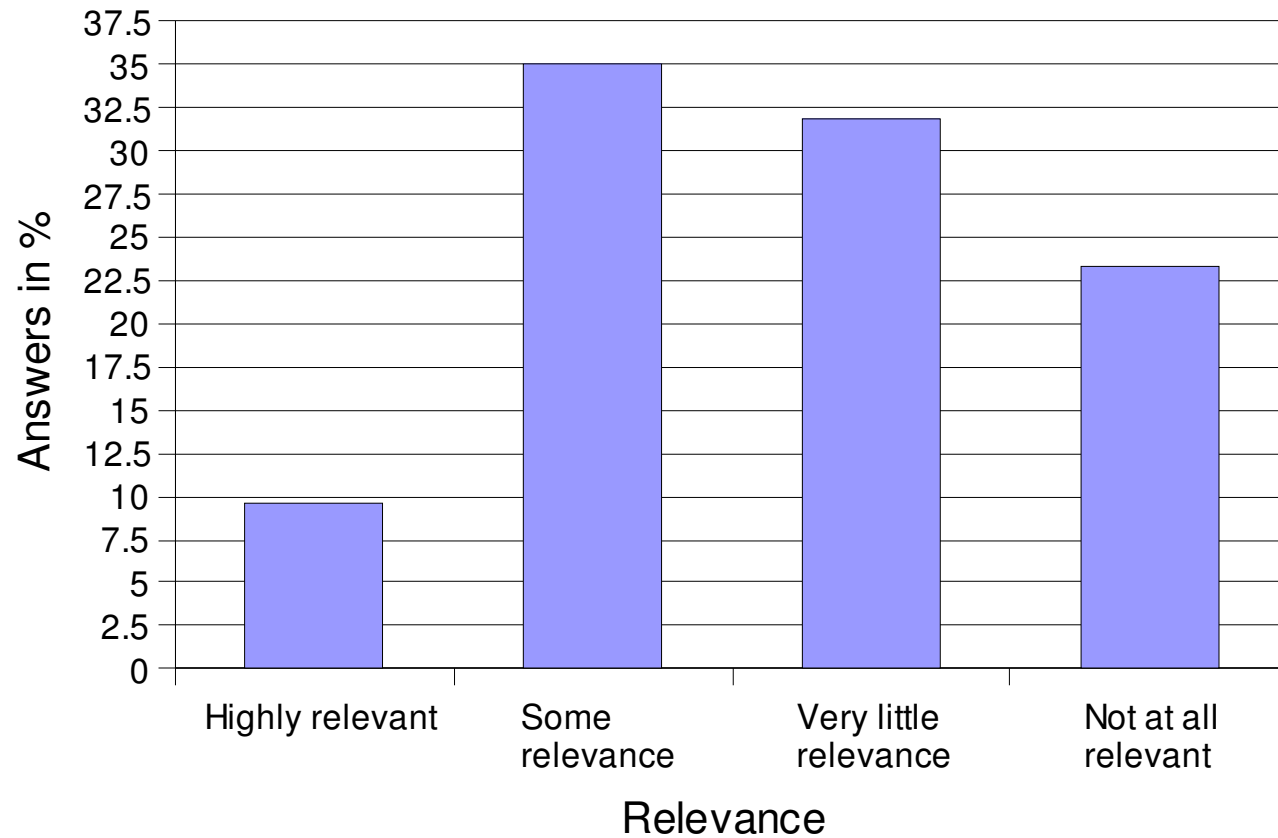
There appears to be four key motivators:

- to try new things (27.66% of responses);
- to earn two units towards the completion of the HSC (17.02%);
- to challenge myself (17.02%); and,
- to investigate working in the outdoors (11.7%).



Relevance of the program

Figure 9: Relevance of TVET Program

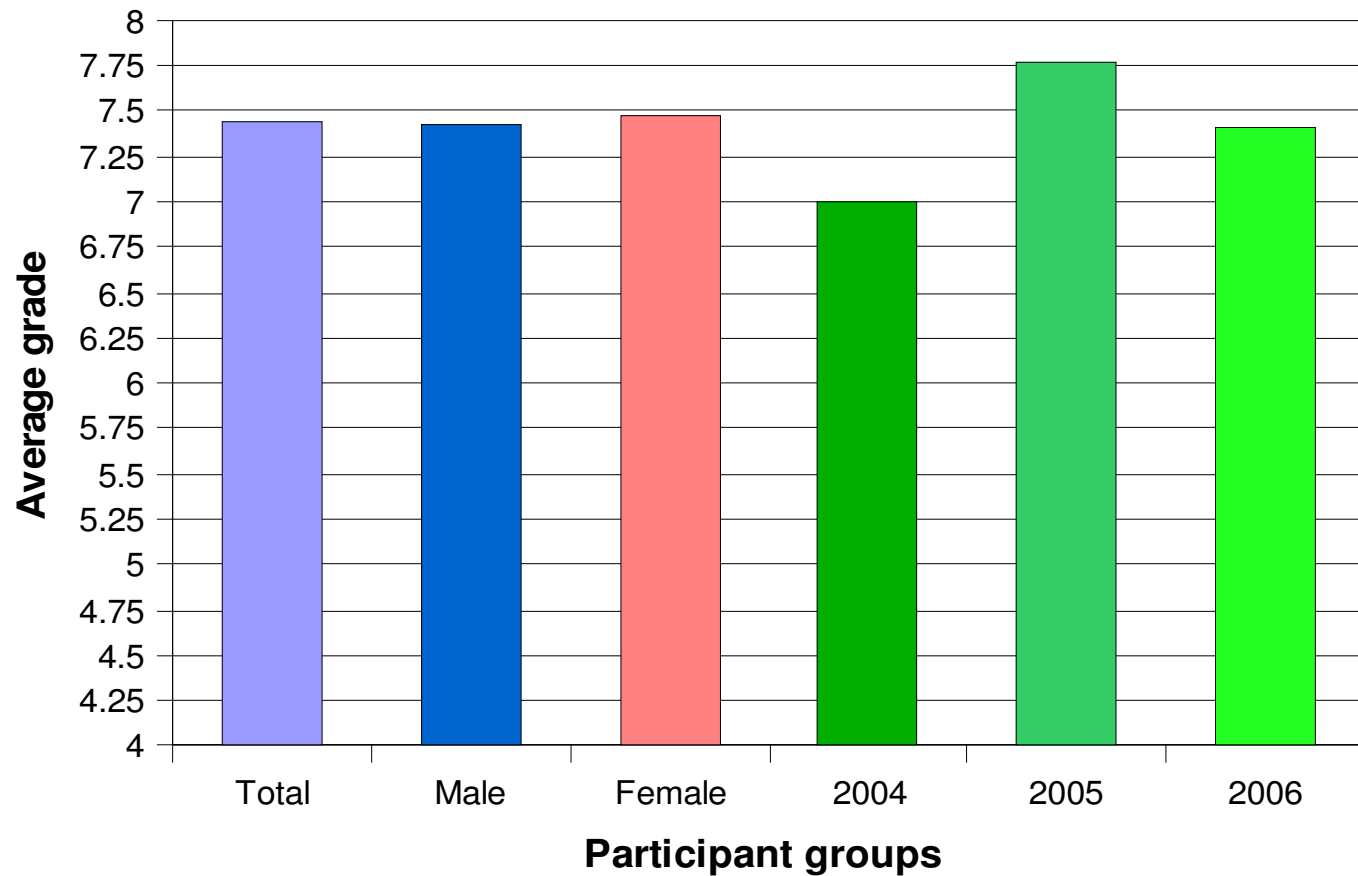




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Overall satisfaction

Figure 17: Overall Satisfaction with the Program





Success of the program?

- 98.94% would recommend the program to other students.
- 87.23% would consider a career in OR as a result of undertaking the program.



What is it about the context that influences such outcomes?

- Length of program?
- Nature of the program?
- Locus of control of participants?
- Nature of engagement?
- Facilitation of learning outcomes?
- Size of group?
- Nature of the environment?
- Challenging context?
- Isolation from technology?
- Integration/connection with school's curriculum?
- Choice?



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The TVET Outdoor Recreation Program

1. 10 day intervention program.
2. Block delivery format in an adult learning context.
3. Students exercise choice.
4. Outdoor adventure activity participation provides the means to multiple ends.
5. Key learning focus is on future employment for students – highlighting who they are, what they are good at, what their limitations are, skills for success in HSC and future employment.



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The TVET Outdoor Recreation Program

The OR curriculum focuses on the development of:

- technical knowledge and skills to select and use equipment and demonstrate safe participation under supervision in a range of outdoor pursuits, camp craft, bushcraft, campsite selection, minimum impact, personal and group hygiene, planning and preparing food, and water collection and purification.
- life skills.



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From this program my self confidence has increased more than I thought it would. I feel very confident with myself and now I believe I can do anything if I put my mind to it.



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After living in the bush and in a tent for 10 days without a toilet or a shower I can do anything and achieve whatever I want.



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I recommend this program to all who seek an adventure. It opens many doors and you meet a lot of new, fun and interesting people and you also unlock the adventure within!!!



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I started this program as a lazy person that gets everyone to do everything for me and now I feel I am responsible and can take a lot of initiative to do things for myself.



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The TVET program has positively affected my ability to communicate socially and work as a team with a large group that aren't my usual friends. It has helped me learn a way to connect with people my own age and how to be accepting of others more.



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I think it has increased my patience with others as I have learnt to not get angry when I'm tired and hungry and frustrated because chances are the other people are just as frustrated as me and it really won't fix the situation if you go off at someone. You should calmly resolve things before they escalate.



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It has given me confidence to stand up and lead a group of people I really didn't know to start with and this has increased my confidence to lead a group in the future.



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I really, really liked this program. The challenges of canyoning, canoeing and climbing have made me feel very proud of myself. I loved rock climbing and want to do it again. The friends I have made are really great. The instructors are great. The whole program is awesome. This is a really good experience. THANKS FOR EVERYTHING.