Research Report

Fostering the wellbeing of students with challenging behaviour and/or emotional needs through Acceptance Commitment Therapy and Outdoor Learning

Group meeting space while walking to the Mount Keira Lookout

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## Contents

Suggested Citation: ................................................................................................................ ii

**Executive Summary** ........................................................................................................ 1

- Background Information .................................................................................................. 1
- Research Aims .................................................................................................................. 1
- Findings ............................................................................................................................ 1
- Discussion .......................................................................................................................... 3
- Conclusions and Recommendations .................................................................................. 3

**Context and Background** ............................................................................................ 4

**Related Literature** .......................................................................................................... 5

- Outdoor Learning and ‘at-risk’ youths ............................................................................. 6
- Acceptance and Commitment Therapy ............................................................................ 8
- ACT and youth .................................................................................................................. 8

**Research Aims** .............................................................................................................. 10

**Method** .......................................................................................................................... 11

- Research Design ............................................................................................................ 11
- Participants ....................................................................................................................... 11
- Measures .......................................................................................................................... 11
- The Intervention .............................................................................................................. 12
- Capstone Event ................................................................................................................ 16
- Data Analysis ................................................................................................................... 16

**Results** .......................................................................................................................... 17

- Pre and Post Quantitative Surveys .................................................................................. 17
- Findings: Qualitative Interviews – Student Experiences .............................................. 20
- Findings: Qualitative Interviews – Teacher Experiences .............................................. 27

**Summary of Findings** ................................................................................................... 36

**Discussion** ...................................................................................................................... 38

**Recommendations** ........................................................................................................ 39

**References** .................................................................................................................... 40
AIM 1
To ascertain the impact of ACT and OL upon the social, emotional and behavioural wellbeing of participants.

AIM 2
To assess the impact of ACT and OL upon the life skill development and coping strategies of participants.

AIM 3
To determine what aspects of the program were the most valuable for participants, and what are the suggested areas of improvement?

1. Student Interviews
What they learned?
- envisioning positive futures;
- exploring mindfulness;
- committing to action; and
- connecting to nature and movement.

2. Teacher Interviews
Predominant areas of change include:
- enhanced teamwork and ability to trust others;
- showing support and respect for others;
- self-calming through ‘meditating’ and breathing exercises.

Qualitative Data

Quantitative Data
- Avoidance and Fusion Questionnaire for Youth (AFQ-Y)
- Kessler10 (K-10)
- Children’s Anxiety Life Interference Scale (CALIS)
- Child Acceptance and Mindfulness Measure (CAMM)
- Self-Description Questionnaire 1 (SDQ1) - General School

Capstone Event
Art-mural co-created by students and an Indigenous elder.

Stimulus Idea:
In 100 years how would you like your grandkids or kids to be looked after? What would you like to see happening; what things would you see if your kids were being looked after well?
Executive Summary

Background Information
Students exhibiting severe and challenging behaviours and/or emotional needs are referred to specialised behavioural schools in NSW for expert intervention and support. This project sought to enhance the wellbeing and skill development of students within such a school (Lomandra Public) by administering an eight week intervention program, comprising an innovative combination of both Acceptance Commitment Therapy (ACT) and Outdoor Learning (OL), which is unique in this emerging field. The research was conducted and evaluated by an interdisciplinary team of educational professionals from Western Sydney University (Western).

ACT has emerged as a popular behavioural change technique that has been applied to address a wide range of challenges. Initiated on the principles of positive psychology, ACT’s goal is “to catalyse a change in focus of psychology from preoccupation only with repairing the worst things in life to also building positive qualities” (Hayes et al., 1999, p. 5). There are six core principles of ACT: acceptance, defusion, being present, self as context, valued living and commitment to action (Bach & Moran, 2008; Hayes et al., 1999). These basic tenets informed the research design and underpinned the structure of the intervention phase.

Simultaneously, the project incorporated the explicit use of experiential activities—primarily conducted in natural outdoor settings—to kinesthetically and cognitively engage students both affectively and behaviourally. Our innovative approach for Year 5-6 students sequentially integrated ACT as both a scaffold and framework for outdoor experiential sessions. The bespoke ACT and OL program culminated in an arts-based mural co-generated by the students and an Aboriginal elder and artist, Tex Skuthorpe.

This report showcases the results of the mixed-method study which included the administration of quantitative pre and post- surveys to nine students; and post interviews with students and teachers. Instruments included in the survey were: 1) Avoidance and Fusion Questionnaire for Youth; 2) Kessler10; 3) Children’s Anxiety Life Interference Scale; 4) Child Acceptance and Mindfulness Measure; and 5) Self-Description Questionnaire 1 – General School.

Research Aims
The specific aims of the project included:

Aim 1: To ascertain the impact of ACT and OL upon the social, emotional and behavioural wellbeing of participants.

Aim 2: To assess the impact of ACT and OL upon the life skill development and coping strategies of participants.

Aim 3: To determine what aspects of the program were the most valuable for participants, and in turn, what are the suggested areas of improvement.

Findings
The results of the students’ responses to the pre and post surveys indicated small but positive changes with regard to the students’: anxiety; impairment as a result of anxiety; depression; school self-concept; development of psychological flexibility; and mindfulness capabilities.

Both students and teachers provided a subjective analysis of the OL and ACT experience. Focus groups, one-on-one interviews, research activities and artefacts were utilised to measure impact of the intervention. Dialogue with the
students provided a deeper understanding of their experiences in the program, the aspects they appreciated the most, and what they learned, or took away, from their time with the group. These overall outcomes emerged as four interrelated themes representing the students’ experiences. These themes corresponded with the three aims of the research.

Consistent with Aim One, Envisioning Positive Futures was a result of values clarification work that was implemented throughout the intervention, with students identifying health and self-care, positive relationships, child-friendly spaces and communities, and opportunities to learn, as important for living a meaningful life.

Consistent with Aim Two, Exploring Mindfulness refers to the impact of the mindfulness and breathing exercises introduced, which students noted aided them in ‘taking time out’ and calming themselves. Committing to Action represents the each individual students’ intention to work towards positive changes.

Consistent with Aim Three, Connecting to Nature and Movement reflects the educational and therapeutic value of the experiential activities in nature for students (Africa et al., 2014). Lastly, the students offered suggestions for improvement, where they identified the challenges of the slower-paced activities.

In addition to teaching support staff, three teachers were participant-observers throughout the activities during the 8-week program, and were interviewed at the conclusion of the intervention. There was a high level of support from staff for the use of ACT and OL for the program and overall consensus that it was tailored and effective. With regard to Aim One: Staff found the predominant areas of change for students included enhanced teamwork and ability to trust others, and showing support and respect for others. With regard to Aim Two: Staff observed the most prominent impact was self-management and engagement, which is generally challenging for this particular group of students. Staff identified self-calming through breathing exercises as the most prominent coping skill developed through the program. With regard to Aim Three: The most valued aspects of the program were identified as:

Finger trap activity to teach ACT principles; Beeswax sculpting and storytelling.
responsive facilitation and trusting relationships; the power of storytelling; mindfulness; and movement and embodied learning. Areas for improvement included developing additional strategies for engaging students while in natural environments, as well as in group settings.

**Discussion**

This project has generated a new body of knowledge about how OL and ACT can be delivered in a collaborative and complementary fashion to effect positive change for students with challenging behaviours and/or emotional needs. Collectively, the pre and post survey data trends and the student/teacher interviews offered an interpretation of the value and utility of the intervention for supporting the emotional and social wellbeing of the participating students, as well as the acquisition of vital skills.

**Conclusions and Recommendations**

This report is intended to inform educational and therapeutic change for practitioners seeking guidance for future refinement and adoption of ACT and OL. While the focus is on the Australian context, we argue that our mixed-methods study findings may have international relevance.

From the perspective of the research team, the key facilitation techniques which amplified the outcomes of the ACT and OL intervention included:

1. Promoting **self reflection**
2. Incorporating **storytelling**
3. Embedding **ritual**
4. Integrating **mindfulness**
5. Combining **creative and arts-based practice**
6. Maximising **embodied learning**

Other key facilitation strategies which enabled the success of the program included:

1. Promoting a **strength-based** approach
2. Utilising **relational** and **reciprocal** methods
3. Embedding **safety and trust** into all aspects of the course
4. Integrating **responsive** facilitation
5. Adopting a **challenge by choice** philosophy
6. Maximising **self determination**

Finally, regardless of age group or context, facilitator ‘attunement’ to the needs and interests of the group is the underlying ingredient to the effective integration of ACT and OL.

Whilst some students did exhibit improvement on the metrics and indexes, the low participant numbers (n=9) make the researchers prudent about overstating the definitive applicability of the findings. Consequently, the qualitative data from the study provides valuable insight into perceived benefits and attributes of the program. Therapeutic intervention attempts to ‘plant seeds’ which may not come to fruition until several years—if not decades—into the future. For this reason, the immediacy of the benefits of the ACT and OL program may not be witnessed until some forthcoming period of time. Nonetheless, the initial feedback on the unique combination of ACT and OL is promising and worthy of further application and investigation.
Lomandra Public School is a behavioural school in South West Sydney (SWS) which caters for students in Year 5-12 with severe challenging behaviours and/or emotional needs. Whilst immersed at the school, students are gaining life skills by engaging in stimulating learning experiences that challenge and extend their practical and academic skills, fortifying emotional intelligence and encouraging social responsibility and inclusion. Both intuition and evidence based research demonstrate—regardless of the adversity students encounter—if they can build and sustain a positive attachment to school, and gain an enthusiasm for learning, their future lives can be enhanced. To this end, the integral role the behavioural school and in particular, teachers, can play in the lives of these students cannot be underestimated.

In order to complement and advance the work of the school and teachers, the Western Sydney University research team were recruited to exercise their collective capacities in Acceptance Commitment Therapy, Outdoor Learning and Evaluation to deliver and evaluate an intervention program to foster wellbeing and skill development for students with challenging behaviours and/or emotional needs. This report documents how an eight week program of ACT was used to forge those attachments through two key mechanisms: firstly, understanding the fundamental building blocks of ACT and OL skills; and secondly, developing an appreciation of ACT to augment the school’s educational outcomes and their students’ healing and recovery.
Related Literature

There is mounting evidence to indicate that schools — and more importantly teachers—are the single most important factor influencing a student's educational progress and outcomes (Sclafani, 2010). Similarly, the role of the school in reengaging disengaged students, or students with challenging behaviour, cannot be underestimated. This study specifically investigated the interplay of outdoor learning (OL) and acceptance and commitment therapy (ACT) and the potency of these two modalities. It explored the combination of approaches and the extent to which they may help mitigate the barriers that disengaged and behaviourally challenged students confront.

There are two components to this research project’s literature review. The first section outlines outdoor learning and adventure therapy (a key element of outdoor learning) with young people ranging from youth with behavioural issues and young offenders. The second section investigates acceptance and commitment therapy (ACT), and draws on the literature supporting its implementation and efficacy for youth in a variety of contexts.

Outdoor Learning and Young People

The philosophical and theoretical roots of Outdoor Learning (OL) and Adventure Therapy (AT) can be located within experiential education (Bowen, 2016; Dickson, Gray & Mann, 2009; Gass, 1993; Norton, Tucker, Russell, Bettmann, Gass, Gillis, & Behrens, 2014). According to the definition provided by the Association for Experiential Education (AEE, 2013), experiential education is “a philosophy of education that informs many methodologies in which educators purposefully engage with learners in direct experience and focused reflection in order to increase knowledge, develop skills, clarify values, and develop people’s capacity to contribute to their communities” (para. 2). These concepts originated in the work of philosopher and educator John Dewey (Warren, Sakofs, & Hunt, 1995) and have great application to OL/AT; they have been reiterated most commonly in Kolb’s (1984) experiential learning cycle, which incorporates action, reflection, and integration as key elements of the learning (or therapeutic) process. Experiential education serves as the link between OL, AT and our implementation of the ACT program.

The application of experiential education in therapeutic contexts provides immersive, direct, and hands-on experiences that involve students as active participants in the therapeutic process. It stimulates engagement and motivation of group members, provides exposure to real and meaningful natural consequences, and offers opportunities for reflection and transfer of learning. Within experiential education, all these qualities are integral ingredients that assist participants to more fully engage in, reflect on, and integrate in the treatment process (Gass, 1993; Norton, 2010; Norton et al, 2014; Tucker & Norton, 2013).

There has been extensive research implicating the positive health benefits of further exposure to the natural environment (Truong, Gray & Ward, 2016). A meta-analysis of the OL/AT literature (Bowen & Neill, 2015) showed that it can be effective in facilitating positive short-term change in behavioural, emotional and interpersonal measures, which appear to be sustained in the long term.

In a meta-analysis of 197 studies of OL/AT participant outcomes, Bowen and Neill (2013) found they had a positive impact on young
people's personal social and behavioural development. They compared OL/AT to alternative treatment and no-treatment groups, measuring outcomes over multiple time points. The results indicated that the OL/AT programs were moderately effective in facilitating positive short term changes in psychological, behavioural, emotional and interpersonal outcomes and that these changes appear to be sustainable in the longer term. Short-term outcomes were significant in seven out of eight outcome categories with the strongest effects for clinical and self-concept measures, and the weakest for morality/spirituality measures. Positive effects increased with age though this was the only significant moderator. Older participants (18 and older) participated voluntarily and tend to have a stronger capacity for problem-solving, decision-making, abstract thinking, reasoning and self-regulation.

Outdoor Learning and ‘at-risk’ youths

Outdoor learning is often aimed at ‘at-risk youths’ ranging from young people with behavioural issues (violence, truancy, and anti-social behaviour), criminal records, and those at risk due to poverty. Many have explored the efficacy of OL/AT to address these issues. Overall, outdoor programs appear to have a positive impact on behaviour and recidivism rates.

In 2007 an evaluation of an OL/AT program targeting youth at risk of poverty, addiction, violence and experiencing low self-esteem, found that it helped develop healthy personal and social skills. They saw improvements in school work, higher school attendance rates, improved relationships with peers, family and adults (Jansen & Pawson, 2015). The researchers attributed much of the success to the skills of the facilitators, citing trust as the most important factor in the relationship. They concluded that a new approach is needed to address the developmental needs of ‘challenging’ young people, one that acknowledges young people's capacity for wisdom and insight into their own lives.

Over an eight year period Carpenter and others (2007) examined the responses of 121 participants to their participation in a six week bush OL/AT program; they were marginalised youth, from 15-25 years, with a history of drug and alcohol abuse. The program appeared to appeal to a group who normally avoid seeking treatment. In fact, a number completed two programs (there were 121 participants that completed 149 programs) such was their enthusiasm for this approach to therapy. The study revealed a high rate of completion (76%) despite, or possibly in spite of, the voluntary nature of the program where participants could opt out at any time. Participants believed that the development of their self-confidence and self-management skills, through what they perceived to be a challenging experience, could provide a stepping stone towards education or employment opportunities.

Autry (2001) explored the feelings, attitudes and perceptions of at-risk girls (nine girls between 13 and 18 years) after their participation in an outdoor experiential learning program. Overall, the girls found positive meaning out of the program and developed a more positive sense of self. However, the participants expressed their inability to transfer some of what they learned about themselves and their personal values into their everyday lives, which warrants more intensive follow-up after completion of the program.

Gillis, Gass and Russell (2008) revealed the effectiveness of an outdoor adventure based behaviour management program for
male offenders. Participants experienced significantly fewer re-arrests over a three-year period compared with participants in outdoor therapeutic camping programs and standard Youth Development Centre programs, despite possessing greater risk factors (younger, and with a more violent arrest records). Another study, however (Jones, Lowe, & Risler, 2004) found no significant differences in recidivism rates between young people who participated in wilderness adventure therapy programs and those who participated in group home programs.

Allen-Craig and Reynolds (2015) measured the effectiveness of a program promoting change in youth at risk of homelessness and educational disconnection. The results confirmed a change from pre to post-test responses, with an 8% increase in the students’ perception of their skills, in particular, time management, task leadership, social competence, and respect for personal boundaries. They noted small improvements in perception of self-esteem, conflict resolution, communication skills, emotional control, and internal locus of control, the latter of which is associated with increased resilience and decreased suicidal risk factors.

Bowen and colleagues (2016) examined the efficacy of outdoor adventure interventions (OAIs) aimed to address “problem behaviours” in Australian youth, surveying program leaders and managers involved in outdoor programs. The main benefits staff identified related to recreational experience, personal and social development. Staff believed that participants obtained significant long term benefits (i.e. several years) and lifelong benefits from the OAIs. If the staff’s conclusions are accurate then OAIs have the potential to play a vital role in improving mental health and promoting at-risk youths’ personal and social development. While OAIs usually targeted personal development (self-esteem, independence), social development and problem behaviours (truancy, substance abuse, depression), staff did not identify the latter as a ‘key outcome’ that had been addressed. Managers (92%) were more convinced than program leaders (51%) that OAIs were effective at addressing problem behaviours in youth. However, there is a lack of information about the nature of OAIs in Australia. Past research has shown that...
benefits can last six months (Bowen & Neill, 2013, 2016; Hattie, Marsh, Neill, & Richards, 1997) but further research is needed to verify whether benefits are maintained over an enduring period of time.

**Acceptance and Commitment Therapy**

ACT originated from the intersection of positive psychology and Eastern philosophies where the goal is to promote behaviour change through six core principles: acceptance, defusion, being present, self as context, valued living and commitment to action (Bach & Moran, 2008; Hayes et al., 1999). According to Hancock et al, (2016, p. 1):

“Acceptance and Commitment Therapy (ACT) is considered to be part of the “thirdwave” of behavioral and cognitive therapies, incorporating elements of cognitive behavioral therapy (CBT) with processes of mindfulness and acceptance (Fletcher & Hayes, 2005)”.

Studies have demonstrated the benefits of ACT to support behavioural change for managing a range of issues from depression to risk of dropping out of school (Murrell & Scherbarth, 2006; Ruiz, 2010). Additionally, ACT can support positive long term effects two-years following completion (Livheim, 2004).

Ruiz (2010) sought to evaluate the empirical evidence behind research into ACT, examining a variety of methodological approaches: correlational studies, experimental psychopathology, component studies, outcome studies and case studies. On review of the outcome studies, Ruiz concluded that ACT has proven to be effective “in a wide range of problems in which a common pattern of experiential avoidance … is present” (Ruiz, 2010, p. 146). Studies showed that ACT had similar positive results as cognitive behavioural therapy (CBT) while other studies showed superior results for ACT. Correlational studies support the ACT model while the results of experimental psychopathology and component studies were “very coherent with the correlational evidence” (Ruiz, 2010, p.148).

**ACT and youth**

While there is significant research to support the assessment of ACT-based constructs (experiential avoidance, fusion and mindfulness) in adults, work with children and adolescents has also been gradually growing (Coyne, McHugh, & Martinez, 2011). ACT is increasingly being regarded as a highly suitable approach for children (Coyne, McHugh, & Martinez, 2011; Epkins, 2016; Simon & Verboon, 2016).

Acceptance and mindfulness techniques are particularly suited for children and adolescents given the emphasis on metaphor and experiential exercises. By grounding these practices in concrete exercises, such as eating or walking meditation, the concept of mindfulness becomes practical and accessible through experience (Zack, Saekow, Kelly, & Radke, 2014).

Although there is a scarcity of scholarly research attesting to the effectiveness of ACT in the treatment of children, it has been contended that the use of metaphors and experiential learning approaches in ACT may be ideally suited to students (Hancock, et al, 2016). This is based on the premise that they think less literally than adults and may readily

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1 Ruiz observed that relational frame theory is the main characteristic differentiating ACT from other second and third wave therapies. RFT is a contextual behavioural approach to human language and cognition positing the theory that human beings relate stimuli that do not share formal properties.
grasp abstract concepts through experience (O’Brien, Larson, & Murrell, 2008). Due to its focus on psychological flexibility and focus on cognitive skills, Simon and Verboon (2016) argue that ACT would be a practical to introduce to children with anxiety. ACT’s cognitive elements require skills that children are likely to master early in life.

ACT has been applied to children and adolescents to treat anxiety and depression, chronic pain, anorexia and psychosis, and resulted in positive psychosocial outcomes (Coyne, McHugh, & Martinez, 2011). Two studies in particular (Coyne, McHugh, & Martinez, 2011; Murrell & Scherbarth, 2006) have examined the growing body of literature around ACT and application with children for a variety of psychological conditions exploring a raft of issues ranging from mental health issues (eg. Schizophrenia), body image issues, chronic pain to behavioural issues and substance abuse. Hayes, Boyd and Sewell (2011) compared ACT treatment of adolescents with depression to ‘treatment as usual’ and found that ACT participants showed significantly greater improvements and “clinically reliable change” (p. 86). Another study explored the effect of a brief protocol based on ACT (four 90 minutes individual sessions over two weeks) on five adolescents (15-17) with behavioural problems at school and home (Gomez et al, 2014). Reports revealed a high positive change and a one-year follow-up showed valuable changes in family, social relationships, school achievement and occupational status.

In sum, a review of the literature highlights documented advantages for young people facing adversity when participating in either Outdoor Learning or Acceptance Commitment Therapy. However, intervention and research have not explicitly combined the two approaches in innovative ways, for engaging students with challenging behavioural and/or emotional challenges, to determine the acceptability or impact of such a combination. The current study seeks to address this substantive issue.
This project presents an innovative approach to supporting the wellbeing and skill development of children with challenging behaviour and/or emotional needs. Although modest in size and scope, it seeks to contribute to the emerging body of empirical and evidence-based research investigating the impact of implementing an Acceptance Commitment Therapy program, together with Outdoor Learning. The project investigated three primary aims:

**Aim 1:**
To ascertain the impact of ACT and OL upon the social, emotional and behavioural wellbeing of participants;

**Aim 2:**
To assess the impact of ACT and OL upon the life skill development and coping strategies of participants; and,

**Aim 3:**
To determine what aspects of the program were the most valuable for participants, and, in turn, the suggested areas of improvement.
Method

Research Design
To address the stated research aims, the current study adopted a mixed methodology combining both a quantitative pre and post-intervention survey, and post-intervention qualitative interviews (Creswell, 2009). It is important to note that no control group was available for this study and, therefore, the research design does not represent a quasi-experimental design whereby any change witnessed from the pre to post surveys can be compared to any developmental growth that occurred in a control group. The addition of the qualitative interviews, however, provides further insight into the perspective of students and teachers about the impact of the intervention. Together, the pre and post survey trends and the student and teacher interviews provide an understanding of the value and utility of the intervention for supporting the emotional and social wellbeing and skill development of the participating students.

Participants
Pre and Post Survey
A total of 9 students completed both the pre and post survey, and thus the following results are based on their survey responses at these two time points. This included 8 males and 1 female (5 in Year 5; 4 in Year 6). The number of days per week at the School for Specific Purposes ranged from 3 to 5 per week. Six students identified themselves as Australian; one as New Zealand origin; and two as Aboriginal. Only one student indicated that they spoke a language other than English, namely Spanish.

Interviews
Within the student cohort completing the surveys, a total of 7 students, consisting of 6 males and 1 female, participated in post-intervention interviews. Additional qualitative data and artefacts included the letters to self, completed by 6 male students, and the capstone artwork session, completed by 5 male students.

Three school staff members, 2 males and 1 female, also participated in post-intervention interviews.

Measures
Pre and Post Survey
A number of self-report measures were administered to the participating students at the beginning and end of the program, in order to determine if any patterns of change occurred over this time period for key constructs targeted by this intervention. The specific measures administered included:

Avoidance and Fusion Questionnaire for Youth (AFQ-Y). This is a 17-item child-report measure used to assess psychological inflexibility engendered by cognitive fusion, experiential avoidance, and behavioural ineffectiveness in the presence of negatively evaluated private events (e.g., thoughts, feelings, physical-bodily sensations) (Greco, Murrell & Coyne, 2005). Lower scores are more desirable.

Kessler10 (K-10). This is a 10-item measure of anxiety and depression symptoms experienced in the past 4 weeks (Kessler et al., 2002). The scale has been used in studies with Australian adolescents and adults. Scores range from 10 to 50 and are classified into four bands: Low: 10-15, Moderate: 16-21, High: 22-29, and Very High: 30-50. The K10 has excellent internal consistency (α=0.93) (Kessler et al., 2002). Lower scores are more desirable.
Method

Children’s Anxiety Life Interference Scale (CALIS). This is a 9-item measure used to assess the level of life interference and impairment associated with anxiety (Lyneham et al., 2013). Lower scores are more desirable.

Child Acceptance and Mindfulness Measure (CAMM): is a 10-item measure of mindfulness and assesses the degree to which children and adolescents observe internal experiences, act with awareness, and accept internal experiences without judging them (Greco, Dew, & Baer, 2005). Higher scores are more desirable.

Self-Description Questionnaire 1 (SDQ; Marsh, 1990) is a measure of multidimensional self-concept with strong reliability and validity. For the current study, the general school factor was administered; it includes ten items about the student’s competence and enjoyment of school in general, on a 5 point Likert-type response scale. Higher scores are more desirable.

Interviews
Post-intervention focus groups and individual interviews were conducted, with students and teachers, to enhance our understanding of any change that may have occurred for students. The semi-structured interviews with students were designed to gain insight into students’ overall impressions of the program and perceived benefits, including questions such as: 1. What is your opinion about the weekly sessions? 2. What did you like the most? 3. Which activities did you enjoy, or get the most out of? 4. What could have been improved? 5. Think about what you were like before you started and what you are like now. Have there been any changes? 6. What are the main messages or lessons you have taken away from our sessions? 7. How do you apply these principles/lessons at home or at school? The enduring impact of ACT and OL on students was investigated at the post-intervention stage when they wrote a “Letter to My Future Self”.

The semi-structured interview questions with teachers examined similar questions, to examine their perceptions of the program and observed changes in the students’ behaviour. Additionally, teachers were asked: 1. As a result of going through this intervention, what is your awareness and knowledge of ACT and its impacts on students? 2. Do you think that this program should be incorporated within the school curriculum for other students? If so, how do you think this is best achieved? 3. Provide three words to sum up your experience of being part of the ACT intervention.

The Intervention
The ACT and OL program
The ACT and OL program was developed by the Western team and used all ACT processes that comprise the “hexaflex” model—cognitive defusion, acceptance, mindfulness, self-context, committed action, and values. Formal mindfulness exercises were undertaken at the beginning of each session with an energy rope. An age-appropriate explanation of the ACT model through metaphor and experiential learning approaches such as the Minefield, Helium Stick and the Chinese Finger Trap metaphors (Hayes et al., 1999) was adopted. The concept of living a valued life was communicated through values cards. Arts-based practices such a clay and wax modeling were also used to concretize the learning processes. Figure 1. depicts the conceptual foundations, conceived by the Western team, which underpinned the creation the new ACT and OL program. Table 1. shows the sequence of specific concepts and related activities.
Figure 1: Conceptual foundations underpinning the ACT and OL Program
<table>
<thead>
<tr>
<th>Session</th>
<th>ACTIVITIES</th>
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</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td>Pre test surveys with students</td>
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<td><strong>2</strong></td>
<td><strong>SESSION 1</strong>&lt;br&gt;• Circle. Establishment of parameters for interaction – reiteration of school approaches of Safe, Respect and Learner.&lt;br&gt;• Energy rope.&lt;br&gt;• Construction of balancing structure with natural materials. Breathing practices.&lt;br&gt;• Overview of all sessions and anticipated outcomes.</td>
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<td><strong>3</strong></td>
<td><strong>SESSION 2</strong>&lt;br&gt;• Circle and recap on week 1.&lt;br&gt;• Checking in with our bodies in space – stretching, breathing and body awareness.&lt;br&gt;• Helium stick.&lt;br&gt;• Nature walk to identify anger.&lt;br&gt;• Exercises for contextualising negative thoughts drawn on paper and sand.</td>
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<td><strong>4</strong></td>
<td><strong>SESSION 3</strong>&lt;br&gt;• Circle with focus on positive reflections.&lt;br&gt;• Checking in with our bodies and emotions.&lt;br&gt;• Oz Tag game with rule changes for reflection.&lt;br&gt;• Writing then destroying words depicting negative emotions in the sand.&lt;br&gt;• Rock skimming (negative thoughts written on rocks).</td>
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<td><strong>5</strong></td>
<td><strong>SESSION 4</strong>&lt;br&gt;• Circle – reflection on previous weeks with examples of activities enjoyed or positive thoughts.&lt;br&gt;• Balloon (with negative thoughts inscribed) sling in groups of 3.&lt;br&gt;• Tug of war game.&lt;br&gt;• Chinese finger traps.&lt;br&gt;• Mindfulness activity with a focus on the body and thoughts.</td>
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<td><strong>6</strong></td>
<td><strong>SESSION 5</strong>&lt;br&gt;• Circle and energy rope with recap on being safe, respectful and a learner - new space.&lt;br&gt;• Breath exercises.&lt;br&gt;• Values cards exercise.&lt;br&gt;• Clay sculptures and storytelling.&lt;br&gt;• Closing activity – human yurt.</td>
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<td><strong>7</strong></td>
<td><strong>SESSION 6</strong>&lt;br&gt;• Circle and energy rope, reflections on values.&lt;br&gt;• Rob the nest game.&lt;br&gt;• Beeswax sculptures, storytelling and totems.&lt;br&gt;• Values cards exercise.&lt;br&gt;• Breathing and mindfulness.</td>
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<td><strong>8</strong></td>
<td><strong>SESSION 7</strong>&lt;br&gt;• Circle and energy rope, reflection on totems and symbols.&lt;br&gt;• Problem solving with knots, and charcoal drawings.&lt;br&gt;• Developing a plan for implementing problem solving actions.&lt;br&gt;• Minefield game.&lt;br&gt;• Breathing and stretching.</td>
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<td><strong>9</strong></td>
<td><strong>SESSION 8</strong>&lt;br&gt;• Nature hike – with activities en-route.&lt;br&gt;• Circle - safety review and identification of purpose of walk.&lt;br&gt;• B.O.L.D. – Breathe, Observe, Listen, Decide.&lt;br&gt;• Choice point exercise – fork in the bush path.&lt;br&gt;• Paper plane at end of walk.&lt;br&gt;• Letter to self regarding following school year.&lt;br&gt;• Cutting of energy rope and making slipknot bracelets for all participants.</td>
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<td><strong>10</strong></td>
<td><strong>SESSION 10</strong>&lt;br&gt;• Post test surveys with students.&lt;br&gt;• Focus group interviews with students and teachers.</td>
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# Method

## Focus Areas

### Identifying existing levels of wellbeing and skill.

- Introduction and practice of mindfulness and contact with the present moment. Contact with place.
- Willingness to make space for difficult thoughts. Emotions and behaviours associated with adversity and hardship. Changing the way we respond to difficulties. Recognising the ephemeral nature of negative thoughts.
- Objectifying thoughts – as separate from the self – my thoughts are not me. Communication, attempting to reach consensus, group action, disassociation from negative thoughts. Identifying how negative thoughts hook us. Awareness of responses to no-win situations – fight or flight – or witnessing and letting go.
- Awareness of difficult thoughts, and of energy used in discordant emotions. Living a valued life – identifying personal values and goals. Identifying steps to achieve goals. Working together with group support to stay safe and achieve outcomes.
- Working with values. Identifying what it means to live a valued life and what detracts from the valued life. Perspectives on problems. Symbols and totems we can use for reminding us of our values. Developing resilience.
- Taking action – practising techniques to live with emotions and take action towards a valued life. Unhooking from difficult thoughts. Developing trust. Identifying scale of problems, strategies for solving them, weighing of strategies and choosing one for action plan.
- Focus on values-guided action – commitment strategies for living a valued life, dealing with setbacks and recognising progress. Willingness to try something new. Recognising body and emotions working together and the influence awareness can have on both. Identifying strengths, making decisions and self-compassion. Symbolically committing to actions for a valued life.
- Identifying current levels of wellbeing and skill.
  - Focus groups with students and teachers for evaluation of effectiveness of program.
    1. Role
    2. Responsibility
    3. Respect
    4. Relationships
**Capstone Event**

After the post-test surveys and focus group interviews had been conducted, the study culminated with the students’ narratives being co-generated into a creative artwork collaboratively with an Indigenous Elder. The mural was co-created together as the students were asked:

*In 100 years how would you like your grandkids or kids to be looked after? What would you like to see happening? What things would you see if your kids were being looked after well?*

This approach embedded a tangible commitment to their future values and most importantly does not deny the negative in their life but creatively commits to a new narrative they can adopt in the present moment into the future (Hayes, et al, 2010; Westrup, 2014).

**Data Analysis**

**Pre and Post Survey**

The small number of participants (n=9) completing the survey at both pre and post data collection times limited the capacity to test for significant differences statistically through techniques such as repeated measures t-test. As such, the mean score at pre and post data collection points are compared and presented graphically to identify trends across the two time points.

**Interviews**

The rigour of this study and qualitative data analysis process was enhanced through the use of multiple coders and a focus on intercoder agreement. Guided by the constant comparative method and thematic coding (Creswell, 2007; Glaser & Strauss, 1967, Strauss & Corbin, 1998), interview transcripts were reviewed and categories developed based on similarities and differences of ideas within the data, in relation to the study aims. These categories served as the basis to identify common themes across all qualitative data sources.
Pre and Post Quantitative Surveys

Nine students who participated in the ACT and OL program completed both the pre and post quantitative survey. The surveys comprised five distinct measures: Avoidance and Fusion Questionnaire for Youth; Kessler10; Children’s Anxiety Life Interference Scale; Child Acceptance and Mindfulness Measure; and Self-Description Questionnaire 1 – General School subscale.

To determine if any patterns of change emerged from before students commenced the program to the cessation of the program, the mean score reported on the pre survey for all nine students was compared to the mean score reported on the post survey for all nine students. Figures 2 to 6 portray the mean scores at these two time points and these analyses address aim 1 and 2 of the project.

Figure 2 illustrates that from pre to post data collection points, participating students reported reduced psychological inflexibility and rigidity when experiencing negative thoughts, feelings and events.
Figure 3 shows that at the commencement of the program, the average score on the Kessler10 placed students’ reported anxiety and depression within the “High” range. At the end of the program, reported anxiety and depression had reduced somewhat, although it can still be considered as “Moderate to High”.

Figure 4 demonstrates that students reported that their anxiety interfered with and impaired their life less after the intervention than it had previously.
Figure 5 indicates that students' ability to observe internal experiences, act with awareness, and accept internal experiences without judgement increased slightly following their participation in the intervention.

Figure 6 shows that general-school self-concept rose, on average, 2 points (on a 40 point scale) from pre to post-testing. This is a small increase, but moved the mean score from the 49th percentile to the 59th percentile in comparison to the normative sample depicted in the initial Self-Description Questionnaire I manual (Marsh, 1990).
Findings: Qualitative Interviews – Student Experiences

Introduction

The program was intentionally designed to enhance student wellbeing and assist with values clarification and behavioural change. There was regular consultation with the students throughout the duration of the program, which was conducted informally at the end of each session to ascertain the types of activities they enjoyed, as well as the key areas of learning. This also allowed the research team to implement a responsive approach to planning and conducting the experiential sessions with the students. Insight into their experiences was examined in more detail at the end of the program through individual semi-structured interviews and focus group interviews.

The research conversations with students provided a deeper understanding of their experiences participating in the program, the aspects they appreciated the most, and what they learned or took away from their time with the group. These overall outcomes are represented in the following four interrelated themes, which correspond with the three aims of the study: Aim One, *Envisioning positive futures*; Aim Two, *Exploring mindfulness and Committing to action*; and Aim Three, *Connecting to nature and movement*, and *Suggested areas of improvement*.

Aim 1:
To ascertain the impact of ACT and OL upon the social, emotional and behavioural wellbeing of participants

Envisioning positive futures

The process of values clarification was introduced throughout all of the sessions, with the aim of helping students identify what is important to them and what it means to live a meaningful or ‘good’ life. These sequentially planned activities prepared students for the final activity in this program, which took place three months following the eight-week intervention. The art-based activity was led by an Aboriginal Elder, Tex Skuthorpe, who asked the students:

In 100 years, how would you like your grandkids or kids to be looked after? What would you like to see happening, what things would you see if kids were being looked after well?

Each student’s narrative became a part of a collaborative artwork that was co-created with Tex, to produce a visual artefact from the research. While each individual response varied, there were commonalities across the answers, which related to: health and self-care; positive relationships; child-friendly spaces and communities; and opportunities to learn.

Health and Self-care: Many of the students’ responses were related to having their basic needs met, including having healthy food, housing, access to education, and being looked after, and having people to rely on. Additionally, for one student, personal agency was also critical as he talked about the importance of learning how to look after oneself.

Positive Relationships: Students identified the desire to have family around, people to play with, people or friends to talk to, and to be treated well. Notions of fairness and equity were also present in the discussions, with one student sharing that it is not about colour – all people should be treated with respect.

Child-friendly Spaces and Communities: The students also talked about the types of places that are important to them, and in particular, they described safe communities where children are able to play, spend time with
Students navigating adults through a trust and communication activity.
others, and be in the natural environment, including spaces to: have fun; ride bikes; play games; go camping; and be outdoors.

**Opportunities to Learn:** The importance of education and learning was also commonly mentioned by students. The right to learn, to receive help when needed, and to be able to ‘get a good job’ were all priorities identified in the group, as well as to: be taught to read; learn new stuff; have an education regardless of where you are from; learn to cook; and to look after oneself. For one student in particular, self-identity was also an essential educational priority, where children are taught the history of where they are from.

**Aim 2:**
To assess the impact of ACT and OL upon the life skill development and coping strategies of participants

**Exploring mindfulness**
Mindfulness was a prominent theme that emerged for the majority of program participants. While the students themselves did not specifically use the term ‘mindfulness’, there were numerous references to ‘taking time out’, ‘calming down’, ‘breathing’, ‘meditation’, and ‘yoga’, in relation to students’ recollections of what they learned and their perceived behavioural changes as a result of participating in the program. These responses are expressly related to the mindfulness approaches and content of the program that were designed to develop students’ self-reflection and awareness of their emotions in the present moment. Additionally, the sessions were focused on helping students to build skills to identify and manage challenging emotions, such as anger, anxiety, and stress. The establishment of these new skills for many of the students is evident from their responses during our research conversations when they were asked to think about what they had learned from the program or how their behaviour had changed.

For example, the following interview exchange with Ned reveals not only what he learned in relation to managing feelings of anger, but also a concrete example of how he put this new knowledge and skill into action in his daily life at school.

**Researcher:** What do you think you learned?

**Ned:** Control my anger because now I’m like I can control my anger.

**Researcher:** Do you feel like you can recognise when you start to get angry?

**Ned:** Yeah.

**Researcher:** And what do you do now?

**Ned:** Just calm myself now.

**Researcher:** Okay. How do you calm yourself down?

**Ned:** Breathing. Do that breath stuff.

**Researcher:** Can you think of a time that you’ve done that in the past, since we started our sessions?

**Ned:** Tuesday.

**Researcher:** So you started; what happened?

**Ned:** This [student] was just
annoying me so much and then I got to a point and I swore. I didn’t even know I swore. I yelled out and I was like so messed, I didn’t even know... But to calm myself down I walked outside and I went to have a drink and I took some breaths.

Other individual interviews also highlighted the impact of teaching breathing exercises to the students. For example, Leon also commented that he experienced changes in his feelings of anger and resultant behaviour, and attributed the change to various ‘calming exercises’ that were taught during the program. Similarly, when asked about what he learned through his participation in the program, Ryan responded:

Well it made me behave more better and calmed me down. Like it would teach me how to calm down instead of being all angry and it’s better...

It just made to calm you down, change your actions, make you more better, calm you down, gives you time out, like yoga. Yeah. Makes you behave. Doesn’t make you angry. Doesn’t make you have thoughts of bad stuff.
Results

While breathing and calming exercises are just one facet within a mindfulness approach, the students’ responses indicate that they were particularly beneficial in relation to identifying and managing difficult emotions. Some students found it challenging or at times boring to participate in these activities; however, they also identified the value of developing these new skills, with one student commenting that he grew to respect the program over time.

**Committing to action**

At various stages of the research process during the outdoor sessions, the students were asked to reflect on the ways in which their current situations and behaviours created challenges for them in their regular school settings. The scaffolded approach was designed to help students identify how their negative feelings and emotions may affect their behaviours and to find more workable options or solutions available to them. While recognising that there are many factors at play which affect student behaviour and engagement, one aim of the program was to help students articulate their own commitment towards change – a commitment to action in creating a more positive school experience along with the support of their teachers and the school community. During our research conversations, the students could identify their own positive behaviours, which they associated with the program. For example, having completed the program, Nathan stated: “I do more work. I reckon I listen more...I'm way calmer.” Ned simply replied: “I respect you more,” which was a positive outcome from developing a relationship of mutual trust and respect.

The final bushwalk also served as a metaphor, recognising the many challenges students may face, but also that success is possible when they believe in themselves, and work together with each other and trusted adults. Upon completing the short, yet challenging hike, the students were asked to identify what a positive school experience looks like to each of them individually. The students were then asked to write a ‘letter to self’ to articulate their vision for a positive school experience and advice on working towards that vision. The students were then presented with a copy of their letters as a tangible reminder of their commitment.

Students mentioned various words of advice that they would offer themselves in order to improve their experience at school. They mostly involved applying themselves, making an effort to socialise with others, and tempering the aggressive behaviour that has been problematic for them throughout their schooling. For example, Nathan identified that he would need to “listen better” while Ned stated he would like to “be good and listen to the teachers and just try my hardest”. Nick emphasised the importance of taking his time with school tasks that he finds difficult (eg. multiplication and division), and Ryan said that he would advise himself to “be calm, do my work” and listen to the teacher.

The students also suggested making an effort to socialise and get along with their peers as a way to improve their school experience. Half of the participants insisted that they would need to curtail their aggressive behaviour such as fighting, smashing windows and lashing out at others. Ryan in particular discussed how his aggressive behaviour led him to leave his regular school and that he would have to “calm down” and “make a change” if he wanted his school experience to improve.

Many of the students noticed that they had improved their behaviour, attributing that to the activities from the program, and in particular the mindfulness activities. For example, Ned said that he learned to control his anger by employing the breathing techniques
they had learned. Similarly, Leon felt that he had reduced his overall level of anger, partly attributing this to new skills, such as going for a walk and finding a quiet place when he felt agitated. Ryan believed that employing the various skills they learned helped him improve his behaviour. These included counting to ten and taking deep breaths, taking a time out, or going for a walk.

These words of advice resonated with the students because they are stated in their own words and also are anchored in particular embodied experience of ‘climbing’ to the Mt. Keira Summit Park. This may serve as a powerful metaphor, such as with the case of Ned, who indicated that he wanted to “Make some friends. Don’t be left out. I don’t want to be left out of nothing. Don’t embarrass myself...I just want to start a whole new life.” However, it is also important to note that the letters to self are not fixed contracts, but rather individual commitments to action, which can be revisited and revised so that they are timely, relevant, contextualised, and meaningful to each student. During the interviews and discussions with students, we observed that many could remember certain activities and that they stood for something (e.g. a lesson, a concept, a metaphor), but they could not always remember the specific significance. This demonstrates the impetus and potential for closer collaboration with teachers and embedding experiential and ACT principles into everyday teaching approaches and practices so that the impact of the program extends beyond the sessions themselves and there is continuity of learning with the students.

**Aim 3:**
To determine what aspects of the program were the most valuable for participants, and in turn, what are the suggested areas of improvement

** Connecting to nature and movement**
When asked to comment on their overall impression of the program, the majority of students shared that it was an enjoyable experience, using words such as ‘fun’, ‘cool’ and ‘good’ to describe the sessions. Overwhelmingly, the students appreciated that the sessions were held outdoors in an environment different from their usual classroom setting, and in particular, enjoyed the physical activities that were conducted in a natural environment.

The students found the program to be an enjoyable, rewarding experience that incorporated learning with outdoor physical activities. The experiential and physical nature of many of the activities was especially engaging for the majority of students. It was at times difficult for the students to articulate their views; however, the movement experiences, and spending time in nature and outside of the usual classroom setting had a clear positive impact on their experiences, as evidenced by the following statements in reference to what they enjoyed most about the program:

“Running around not just sitting down talking.” (Nick)

“I liked being outside.” (Annie)

“I can’t explain how it’s fun but when we done it, it just was cool. How we did the tug-of-war and all that...Getting together and like just playing games. Bouncing around and having some fun.” (Ned)

The bushwalk along the Dave Walsh Track at Mt Keira was a particular favourite activity amongst the students, as it incorporated movement with deeper immersion in the natural environment. For example, Leon stated that he especially
Student artwork on the collaborative group mural during the Capstone Event.
enjoyed the bushwalk because “we were out in the bush and walked mostly.” Correspondingly, Derryn shared that it was memorable because it was truly in “nature, not in a park.”

Organised as a final activity for the outdoor sessions, the bushwalk was both a physical challenge for the students, as well as a culminating event to reinforce their prior learning from the program. The process itself highlighted several key concepts from the program and allowed the students to demonstrate positive behaviours, including trust and rapport within the group, positive communication and support for others, as well as perseverance and dedication to achieving goals.

Suggested areas of improvement

While very few negative comments were expressed, some students shared that they found the slower-paced activities, such as the group discussions and mindfulness practices to be ‘boring’ or ‘weird’. These comments were shared by a minority of the students, and despite the challenges they faced while participating in these reflective and sharing activities, the same students also identified and articulated the benefits of the new skills they were learning and practicing. Therefore, there was an implicit recognition that this program was not solely an outdoor diversional or recreational program, but rather it was an outdoor experiential learning program with specific aims.

Findings: Qualitative Interviews – Teacher Experiences

Introduction

A small group of teachers and school staff consistently attended and participated in the weekly sessions. While the composition varied from week to week, this small group of staff had a strong level of rapport with the students through their daily interactions within the school setting. This relationship and knowledge of individual students placed the staff members in a unique position to make observations on the impact and effectiveness of the program. The teachers were provided with opportunities to share feedback throughout the implementation of the program, as well as during post-intervention interviews. Overall, the comments received were positive and words used to summarise their experience of being a part of the program, included: honoured; excited; hopeful; adaptable; enlightening; and worthwhile.

The semi-structured interview questions asked teaching staff to reflect on the effectiveness of the ACT intervention and its observed impact on students, particular program elements or activities that were valuable learning experiences, the ways in which aspects of the program could be integrated into everyday teaching, and areas for improvement. Their responses were interpreted using a thematic analysis process and organised in the following section in relation to the three project aims.

Aim 1:

To ascertain the impact of ACT and OL upon the social, emotional and behavioural wellbeing of participants

Overall, there was strong support for the use of ACT and OL as the basis for the program. The teachers commented on the observed impact of the program on student wellbeing, particularly in relation to their rapport with members of the school staff and research team. The teachers also unanimously agreed that the ACT intervention was tailored, appropriate, and particularly effective for this specific age and stage of learner. The predominant areas of change observed by the teachers included:

enhanced teamwork and ability to trust others,
Results

and showing support and respect for others.

**Enhanced teamwork and ability to trust others**

Many of the experiential sessions required the students to communicate in a group setting and cooperate with one another in a wide range of games, activities, and reflective conversations. The teachers shared that this was often a challenge, particularly for this group of students, and one observation that stood out for them was the level of positive social interaction that emerged on many occasions. While individual engagement and participation varied from week to week, the teachers reported that even in those few sessions they observed positive change in the students’ ability to get along with one another, with the adults, and work together. When asked about any changes observed in the students who participated, one teacher commented:

“They’re seeing us as not so much their bosses and being in charge of them. They’re kind of seeing that we’re there to help them and the positive push that this program’s got has really changed their thoughts towards us and it gives us a lot more base knowledge.

Correspondingly, another teacher reflected on the students’ ability to develop a positive rapport with the adults in the group:

“I think that what I’ve noticed is that – and we’ve worked on it all year, but it’s becoming more and more – that they work as a team, a lot more teamwork and a lot more trust between them… I like the way that they really trusted you guys now and that they know you and they’re comfortable.

**Showing support and respect for others**

The importance of trust is interrelated with the ability to show support and respect for others. This emerged as another theme, and in particular, the storytelling activity involving the use of clay was a significant antecedent event. When asked to identify an activity that had the most impact on students, one teacher shared:

*For me personally it was the clay building. That day was amazing. To see some of the [students] open up and be so honest and there was no competition between stories. It wasn’t ‘Well I’ve done this’, ‘I’ve done that’, and ‘I’ve got a worse life than you.’ It was just open and honest what they were saying. So yeah, that was a real highlight of the [program] for me was a couple of the [students] talking so openly and honestly...No one took it as a ‘Look how bad my life is.’ It was more of a ‘This is just what’s happened to me and I trust you guys enough to tell you.’ So the trust in that exercise was amazing.*

The level of trust and rapport within the group was viewed positively. The impact of adults putting their trust in the students, as was the case during a minefield activity was also viewed as impactful:

*I really loved the minefield activity and I think that the kids really love it when we put our trust in them and it really stood out... when the kids were in charge of*
our safety and they didn’t abuse it. They took it really seriously.

**Aim 2:**

To assess the impact of ACT and OL upon the life skill development and coping strategies of participants

While interrelated with Aim One, Aim Two focuses more specifically on the development of coping skills and strategies as a result of participating in the program. The teachers commented on the students’ ability to remain engaged, and in particular, how some students were able to stay focused while others were not on-task or participating in the group activities. In our interviews, this skill development was discussed as self-management, and self-calming. One teacher articulated students’ skill development in relation to self-management of behaviours in the outdoor learning activities, which provided students some freedom of movement in natural spaces:

> For our students we set the boundaries, but again we want them to be able to manage themselves and be able to explore boundaries and different environments in a very safe way. I’m watching the students manage themselves. I’m watching the students keeping themselves...
safe, not wandering off; working together.

**Self-calming through ‘meditating’ and breathing exercises**

The most prominent coping skill development observed by the teachers was the students’ ability to calm themselves when feeling anxious, angry, or frustrated. This was discussed by the teachers generally in relation to the mindfulness activities, and more specifically, the breathing exercises introduced throughout the program sessions. This is demonstrated in the following interview exchange:

**Researcher:** Have you noticed any change in the students who have participated? So those that did engage, in terms of their behaviour or their emotions, out of class or in class?

**Teacher:** I have noticed a change in [one student] and to some degree [another]. When he had a good week down there about two or three weeks ago he had a good two or three weeks after the session back at school and then went off the rails again. But yeah, I think [they] probably needed it the most and probably took along the most, like took on the strategies and everything and have used them. I’ve seen [him] use them and he
spoke about that in his interview, but he does use the calming.

**Researcher:** So what does that look like when you say he uses it and what does he do?

**Teacher:** He just blanks out basically. He blanks out and kind of sits there and does his own thing. He just stares at something and I’ve asked him about it and he said ‘I’m meditating’, which I don’t know if he is or if he’s just blocked out, but it really seems to calm him down when he does it.

Similarly, when asked to identify a particular aspect of mindfulness that was beneficial for the students, one teacher mentioned the importance of breathing exercises:

*We speak to the kids about grounding activities and things like that when they’ve got their externalising behaviours. So that breathing, the breathing really helps. So I use...guided meditation for the kids...But I also really like the idea of just sitting around with the kids and doing a bit of clay work and talking to them about their values and things like that. So we do a lot of work with values here. So, it’s definitely something that I would expand on...*

**Aim 3:**

To determine what aspects of the program were the most valuable for participants, and in turn, what are the suggested areas of improvement Overall, four interrelated themes emerged that represent the most valuable aspects of the program based on the teachers’ observations and reflections. These included: responsive facilitation and trusting relationships; power of storytelling; mindfulness; and movement and embodied learning.

**Responsive facilitation and trusting relationships**

The teachers observed that the trust and rapport developed with all participants contributed towards a positive group dynamic and connection with the research team. The teachers also noted the ways in which the program was tailored for the particular group of students, as well as adapted throughout the course of the study to suit their needs. Additionally, the flexibility of the research team as facilitators contributed towards the effectiveness and impact of the program. For example, when asked about the overall impression on the weekly sessions, one teacher shared the following:

*I thought they were fantastic. What I liked about the program was how open you were for tailoring it to our students...We just felt that the way that you adapted it to suit our students’ needs was absolutely fantastic. So we really liked that. I really enjoyed the way that you did the mindfulness and then we had the physical activities as well and the hands-on work, so I just thought it was a really strong program to participate in...We were just so impressed with how you tailored it to suit our kids.*

Correspondingly, in response to the same
question, another teacher shared:

The adaption that happened every week was really good because it took probably the first week just to find out what the kids enjoyed and learn a bit about the kids, but by the end of the program all the sessions were worked towards what the kids would enjoy. So they enjoyed it and got more involved as it went on.

In addition to the flexibility, iterative, and intentional design of the program, responsive facilitation included the approach taken by the research team in not only leading the various activities and engaging with the students, but also in the relationship with the teachers:

I clearly again got a sense that the facilitators were able to take on an important and predominant role in that management during that time. It wasn’t a sense that we were the primary managers, because often when you’re in that situation it disempowers the facilitator, because then the students don’t perceive them as being that person in that teaching or facilitating role.

But again I look back at what it looked like in the Mount Keira walk. The facilitators were the managers. They were giving the instructions. The majority of the students were able to follow those instructions. It didn’t require a lot of intervention on our part...The facilitators to me were part of that whole team. They were there, and right throughout.

**The power of storytelling**

As previously mentioned, the clay activity with storytelling stood out as a highly impactful activity towards building trust and rapport, as well as engaging with the ACT process. The potency of storytelling as a teaching tool with at-risk populations has been widely acknowledged (Gray & Stuart, 2015). In this study, the teachers mentioned they chose to share an experience that was appropriate to disclose in their role as a teacher. However, they also observed the impact of the research team sharing their experiences, which were still appropriate, and yet more personal in nature and within the therapeutic context. When asked if there were particular activities that stood out to them, one teacher shared:

The clay storytelling and sculpture and I think what stood out for me there was that you guys were really vulnerable with the kids and spoke about your experiences in life and it just felt more real. So, when you opened up to the kids I think that it gave them the opportunity to feel that they could trust you. So that really stood out to me...You were able to be more vulnerable.

**Mindfulness**

The teachers also shared that they were able to gain knowledge and increase their understanding of ACT, particularly with regards to developing calming skills and strategies. One teacher also shared that they felt calmer in their own work as well. As discussed in Aim 2, the breathing exercises introduced served as
a concrete example of skill development. One teacher shared:

I’m learning that it’s not all just airy fairy nonsense. It has got a lot of basis and will be good for my class…I’ll be using it again next year with some of the calming skills and strategies that they’ve already picked up.

The focus on mindfulness was viewed as valuable for the school in general, for both students and staff:

Mindfulness I think is just so important for everybody to understand and they can implement it in their own life. I think that’s what we’re hoping to do here, bring it to the school and hope that people tap into it for their own personal use as well.

Movement and embodied learning

The variety of learning experiences explored throughout the sessions was viewed as valuable to the overall program. The experiential and physical nature of the intervention created learning opportunities for the students along the way. For example, one teacher stated:

I really liked when we had those teachable moments throughout the course. Especially, I remember the day with the minefield when they were having a particularly bad day and when we had [a student] say ‘This is no good. We come to [school]. You can’t teach us anything’. We were able to turn it around and say ‘No, you come to [school] and only you can change.’ [The student] was saying ‘You can’t change us’, and ‘How’s this going to work?’ We were able to turn it around and talk about the school values.

The Mount Keira walk was also viewed as a significant learning event. The walk was challenging, physical, socially, and emotionally for students, and they were able to trust and support each other within the group. For example, one teacher shared:

I think that it’s really important to get kids out of their comfort zone and I think that from what I understand when they were out of their comfort zone on the bushwalk it made them more vulnerable. We find that anyway, when we take them to places like the snow, the masks come down.

Another teacher commented on how the walk itself brought together many elements of the program and demonstrated the positive impact on the students:

I could see a sense of working together as a team. That was very evident, and even more evident in the last activity on the Mount Keira hike…but again I come back to the last part of the program at Mount Keira where you probably saw – from my perspective you saw it working at its best. Where they worked together as a team, they supported each other, they worked with the facilitators.
Results

**Suggested areas of improvement**

In general, very few suggestions were offered for future improvements to the program. The key challenges identified by the teachers were related to the environment and student engagement.

*The outdoor environment.* The beach and park location was at times challenging due to the heat, the traffic (e.g. nearby cars and foot traffic), and the lack of shade. This was observed to contribute towards students’ restlessness or ability to focus. It was also recognised that the variety of activities and facilitator flexibility helped to re-focus or re-engage students. Despite these challenges, the outdoor environment was also viewed as an important aspect of the program itself:

> Probably at the start I was thinking that the environment was a bit of a distraction, but also I understand that we need those distractions; that the kids need to work round those distractions. Maybe working with a smaller group it could take out some of the distractions, just maybe working with one class at a time may help. But there’s not really anything I would change about it. I thought that the program was really strong and [our school] we have good days and bad days. So that’s the way it is. It’s always like that here. I don’t think it would have worked half as well having it in a school hall. I just think it was really important to have us outside. No, I don’t think there was anything I would change at this stage because I think all through the course you were changing it to suit the kids anyway. So I just think you were really responsive the whole way through.

*Student engagement.* Fostering a high level of student engagement on an individual and group level was also a challenge from week to week. The teachers felt it worked well to have the students off school grounds, and also to schedule the surfing lessons to be held after the weekly program to help maintain students’ attention. As mentioned in the teacher’s quote above, working in smaller groups was one of the main suggestions:

> That’s probably what I would think is maybe we could have identified the ones that were disengaged and distracting the others. We could have then broken off into groups but good days and bad days isn’t it? It’s just the way we roll.

Another teacher also suggested that in addition to working in smaller groups, finding additional strategies or alternatives to engage students would be helpful:

> The improvement could probably come with some sort of strategies for the disengaged students...my job is to engage each student and I know how hard it can be, but for a program like that to work I think everyone needs to commit as a group. I know that was part of the first session was to say ‘Look, this is a group thing, if everyone’s involved. If you don’t want to be involved don’t disrupt the rest of the class’, and unfortunately that didn’t always work. Maybe trying to find something to engage those students, which is going to be difficult.
Envisioning positive futures.
Summary of Findings

The presentation of findings will be articulated through the lens of qualitative and quantitative data analysis in relation to the three research aims.

**Aim 1:**
To ascertain the impact of ACT and OL upon the social, emotional and behavioural wellbeing of participants.

1. Students reported a reduction in anxiety and depression over the duration of the program, moving their collective mean scores from the “High” to “Moderate to High” range.

2. Following the completion of the program, students reported that their anxiety interfered with and impaired their life less than it had previously.

3. Students reported a small increase in their general-school self-concept following their participation in the program.

4. Students identified key elements of health and self-care that were important to them and expressed the value of positive relationships in their view of a valued life.

5. Students articulated the need for child friendly community spaces where they could play, be active, be social and learn.

6. Students enunciated the importance of being able to learn in their future view of a valued life. This included formal learning, support for learning and learning how to care for themselves.

7. Teachers reported students engaging in enhanced teamwork and ability to trust others.

8. Teachers reported that students showed enhanced support and respect for others.

**Aim 2:**
To assess the impact of ACT and OL upon the life skill development and coping strategies of participants.

1. Students’ ability to observe internal experiences, act with awareness, and accept internal experiences without judgement increased slightly following their participation in the intervention.

2. Participating students reported reduced psychological inflexibility and rigidity when experiencing negative thoughts, feelings and events following the completion of the program.

3. Students reported on enhanced ability to manage their emotions and responses. Repeated references to ‘taking time out’, ‘calming down’, ‘breathing’, ‘meditation’, and ‘yoga’ were made.

4. Students reported an enhanced ability to identify what a positive future looked like for them, and some of the steps they needed to take to achieve it.

5. Students reported an awareness of and determination to commit to action to realise a valued life.

6. Teachers reported self management of behaviours in the outdoor activities.

7. Teachers reported the students’ ability to calm themselves when feeling anxious, angry, or frustrated.
**Summary of Findings**

**Aim 3:**
To determine what aspects of the program were the most valuable for participants, and in turn, what are the suggested areas of improvement

1. Students reported that experiences that incorporated learning with outdoor physical activities were rewarding.

2. Students reported that the movement afforded by being in real nature was good and memorable.

3. Students reported that the pace of some of the slower activities could have varied to engage disengaged students further.

4. Teachers reported that the outdoor environment was a key element in the success of the program, but an outdoor environment with fewer distractions may have improved the student engagement.

5. Teachers reported that activities to engage individual or smaller groups of students may have improved the overall engagement of students who were periodically disengaged.

Beach walking and mindfulness activities.
The results of the students’ responses to the pre and post surveys indicated small but positive changes with regard to the students': anxiety; impairment as a result of anxiety; depression; school self-concept; and development of psychological flexibility; and mindfulness capabilities.

These results should be interpreted with caution as without the adoption of a control group and an adequate sample size to conduct rigorous tests of significant change, the researchers are unable to assert that changes reported from the pre to post survey are either significant or the direct result of students’ participation in the intervention, as opposed to other confounding factors. Nonetheless, the witness of small positive shifts for a group of children experiencing significant emotional and behavioural challenges is encouraging.

The outcomes of the qualitative interviews provide additional opportunities for confidence in the trends shown in the quantitative data. Self reports from students that highlight new levels of awareness, identification of negative behaviours and emotions are significant for the cohort reported on here. In addition, the student reports regarding recognition of constructive steps for implementing new patterns of being and commitment to action towards a valued life represent new levels of self awareness and agency.

Qualitative reports from teachers also highlight the development of new levels of awareness in their students. Enhanced abilities to work together and to engage in trust-based relationships are key in any classroom and the improved capacities for students to self-calm and recognise their emotions and to disengage from them means a more coherent and productive school life.

This program combination of OL and ACT represents a process of emerging awareness, identification of desired behaviours and conditions, and a commitment to working toward an improved valued filled life, for the participants. It is, in essence, a transformational process. The qualities of the program and the implementation strategies, as well as the outdoor setting all played a significant role in its success.

The qualities of the program included interactions that were:

1. Relational and reciprocal
2. Provided Challenge by Choice
3. Revolved around Responsive Facilitation
4. Trusting and Safe
5. Strength Based
6. Empowering for Self determination

The implementation of the program included the following key elements.

1. Embodied Movement
2. Creative Arts-Based
3. Reflection
4. Mindfulness
5. Storytelling
6. Ritual
Recommendations

It is recommended that the combination of ACT and OL is further developed and implemented with students exhibiting challenging behaviour and/or emotional needs. The participating students enjoyed and valued the process and activities and their self-reports indicate their social, emotional and behavioural development has been enhanced. It is also recommended that future implementation programs be funded and designed so that larger sample sizes and control groups are adopted to advance knowledge in the field about the efficacy and impact of ACT and OL programs. Such designs will not only benefit the direct participants of future programs but more sophisticated evaluations will benefit the broader education and psychology sector, and of course many more children in need. Additionally, future studies may also seek to increase collaboration with school and teaching staff, in order to build capacity and enhance the integration of OL and ACT into everyday teaching practices.

While the focus of this report is based on a small-scale study within the Australian context, the findings have international relevance to the empirical literature. The latest evidence-based research is uncovering techniques which enable adolescents to emerge from adversity with a stronger sense of purpose. To this end, by pioneering the merging of ACT and OL in this study, we demonstrate that change – albeit small - can be achieved for students with seemingly entrenched difficulties and adversity to help students transform their lives.
References


References


