



Big Dipper (Giant swing)
Standard Operating Procedure
and
Risk Management Plans

OVERVIEW

The 'Big Dipper' is an element of our Adventure at Heights program. It is designed to challenge the participants to push themselves beyond their comfort zone and to encourage team support, cooperation and peer to peer encouragement.

OUTCOMES

Teamwork

Personal challenge

Trust

Peer to peer encouragement and support

PRE-REQUISITES FOR INSTRUCTORS

Blue Lagoon training for giant swing to Instructor level.

LOCATION

In the Rec Hall

PRIOR TO COMMENCING

Lay out and check all full body harnesses and helmets

Let down the swing and check all ropes are in good condition, are not knotted and are not showing signs of wear.

Lay out a drop zone using cones

Set up step ladder

Ensure the quick release is set ready for first use.

Ensure the retrieval line is attached, unfurled and ready.

INITIAL INTRODUCTION AND PARTICIPANT BRIEFING

Participants are to be welcomed and the activity explained.

This is a challenge by choice activity and participants only have to ride if they want to.

Explain how to put on the harnesses and helmets.

HARNESS FITTING

The Big dipper uses fall arrest or full body harnesses.

Using one leg at a time step through the leg strap as you would when putting on a pair of shorts.

Pull the harness up and over your shoulders

Fasten the chest strap by passing the smaller buckle through the larger silver loop.



Smooth shorts or pants before tightening the leg straps as bunched clothing can make you uncomfortable. All straps should be done up firmly.

There is adjustment in the chest strap, side straps in the front and in the leg loops.



Ensure

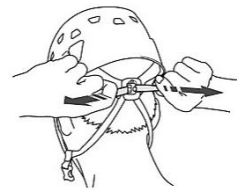
participants are comfortable and the harness is not pinching or pulling uncomfortably.

There is a strap that sits across the participant's backside to make sitting in the harness more comfortable.

HELMET FITTING

Helmets must be fitted before stepping into the climbing zone. Our helmets are one size and are adjustable to fit a range of people. People with long hair will need to tie it back low on their neck to avoid it interfering with helmet fit.

Helmets should sit low on the forehead and once the chin strap is done up the two tabs at the rear of the helmet can be pulled to adjust it to size.



Only one participant may ride the swing at any time. All other participants must wait outside the drop zone.

The waiting participants will form the haul line.

Haul line participant instructions:

Stay on the right side of rope.

Do not grab the rope above the pulley

Walk, do not run

Do not tie knots in the rope

Do not wrap the rope around any part of your body

Stop when the swinger says stop

Brace yourself for the release

Do not pull on or drop the rope until you have been asked to

SPECIFIC ACTIVITY SAFETY AND INSTRUCTIONS

The instructor will need to set the quick release after each ride

Here is the process for tying the quick release:



Harnesses and helmets should be checked by the instructor prior to attaching each rider.

The participant will need to climb up the step ladder (instructor should spot them as they do so)

They may be clipped either in front (to the two grey loops) or behind (to the metal ring) according to their choice.

The participant must sit in the harness and then the step ladder should be removed from the drop zone.

Once the drop zone is clear the haul team can then pick up the haul line and on the instructors mark they can work together to 'haul' the participant up.

The haul team must stop when the participant says stop.

The team will need to brace themselves for the release of the swing

The instructor may then give the go ahead to the swing rider to release the swing and the participant may pull the release cord.

Everyone must stay out of the drop zone while the swing is in action.

Once the swing has come to a stop the step ladder may be brought in the swing rider may stand on it and the instructor may unhook the rider.

The quick release must be retrieved by pulling the retrieval line and the quick release may be retied to the strop.

The next rider may then come into the drop zone on the instructors indication and the new rider is attached to the strop.

Anyone in the drop zone must be wearing a helmet at all times.

PACK UP AND DEBRIEF

Participants should be asked how they performed as a team and how that factor effected the activity.

Ask nervous riders what helped them to go through with the ride.

Emphasise the importance and power of encouragement and the way good teamwork can build trust.

At the conclusion of the activity the quick release should be retied, the retrieval line should be bundled and tied and the swing pulled up into the ceiling. The haul line should then be tied off

The harnesses should be checked, fully extended and stored in the storeroom along with the helmets, cones and the stepladder.

INSTRUCTOR RESPONSIBILITIES

To ensure all equipment is correctly set up and in good working order

To set up the activity

To manage the group behaviour and ensure the safety of the participants.

To give clear instruction to the participants

To conduct each swing in a safe manner

To pack up and stow all equipment at the conclusion of the activity.

To provide first aid if required

ASSESSING THE LEVEL OF RISK

Once risks are identified, they are evaluated on a 2 dimensional matrix using a qualitative rating of the likelihood of the event occurring and the scale of the possible consequences. When risks have been identified, they are analysed by combining the consequences and likelihood to produce a level of risk. This form of evaluation provides a good graphical representation of how serious the risk is or where it lies within a group of risks. The risk analysis provides information critical to determining what risks need to be treated and what risks are accepted.

The following matrices have been utilised for the assessment process;

Table 1. Primary Risk Category. (the primary risk is the most immediate or likely risk). Risks may technically fall under several categories eg. A student who has their leg trapped under a falling mast on a sailboard may suffer a physical injury (primary Risk), such as a broken leg, however there may be legal action at some point in the future (secondary risk).

Primary Risk Category	Brief Risk Description
Physical	Injury risk to person - including <ul style="list-style-type: none"> ➤ Participants ➤ Instructors ➤ Community members
Property and Equipment	Damage risk to campsite property/equipment.
Environmental	Includes risk factors that may impact upon the activity. <ul style="list-style-type: none"> ➤ Climatic eg. Thunder and lightening, strong winds. ➤ Marine eg. Tidal or current flow. ➤ terrain
Medical and Disease	Includes risk factors associated with: <ul style="list-style-type: none"> ➤ Pre-existing medical condition eg. Epilepsy, asthma. ➤ Loss of required medication eg. Asthma inhaler. ➤ Disease transmission. From person or environment eg. Influenza.
Psychological	Risk associated with trauma or fear/stress.
Legal, Moral and Ethical	Risk associated with: <ul style="list-style-type: none"> ➤ Legal action and/or litigation. ➤ Breach of legal obligations. ➤ Damage to DECS reputation. ➤ Criminal activity.

Table 2: Likelihood Matrix

Level	Descriptor	More Detail
A	Almost certain	Will occur. Expect frequent/regular occurrences.
B	Likely	The event will probably occur more than once
C	Possible	The event might occur at some time
D	Unlikely	The event is not expected to occur
E	Rare	The event may occur only in highly exceptional circumstances

Table 3: Consequence Matrix – relate to the *most probable* outcome.

Eg. A fall from a windsurfer is most likely to result in **no or minimal injury and therefore be rated as 1-2 ie. insignificant/minor.**

Level	Descriptor	More Detail	Injuries	Potential Operational Impact
1	Insignificant	Low Impact, no injuries/damage, low profile.	None	Student still able to participate. Little impact <30min
2	Minor	Minor Injuries/damage sustained. Low impact, possible public embarrassment.	First Aid Treatment	Student able to participate after treatment. Low impact <30min
3	Moderate	Significant injuries/damage sustained. Public embarrassment possible.	Medical Assistance Required	Student unable to continue with activity. Instructor impact whilst treatment given.
4	Major	Extensive injuries/damage sustained. Loss of instructional capabilities, public embarrassment, 3 rd party action, high news impact	Extensive Injuries. Medical Treatment	Loss of instructor/s whilst treatment/medical aid given. Extended rehabilitation of injury/damage repair.
5	Catastrophic	Public embarrassment, 3 rd party action, high news and media impact.	Deaths	Loss of instructor/s, closure of centre whilst investigation conducted.

Table 4: Level of Risk – consideration of both likelihood and consequence.

		Consequence				
		1	2	3	4	5
		Insignificant	Minor	Moderate	Major	Catastrophic
Likelihood	A Almost Certain	High	High	Extreme	Extreme	Extreme
	B Likely	Medium	High	High	Extreme	Extreme
	C Possible	Low	Medium	High	Extreme	Extreme
	D Unlikely	Low	Low	Medium	High	Extreme
	E Rare	Low	Low	Low	High	High

Important Note: Following the identification and implementation of risk management control measures it is assumed that all Risk Descriptions will be reconsidered as having a “low risk” factor. If the re-assessed level of risk remains at “Extreme” or “High” following implementation of control measures serious consideration should be given to not proceeding with this activity. Risk vs Reward for this specific activity should be carefully considered!!

Table 5. Risk Priority – an indication of how quickly/frequently an identified risk needs to be addressed and/or monitored.

Rating	Description
Low	Low priority.
Medium	Medium priority.
High	High Priority. Requires immediate action to redress risk. Additionally, risk should be closely monitored to ensure management strategies to reduce risk are effective.

Important note: The assessment and identification of Risk Priority should not be solely based upon the likelihood or frequency of an event occurring, but more a consideration of a number of factors, including: *frequency, likelihood, consequences (particularly the possibility of serious personal injury or death) and risk of litigation or legal exposure!* A student competing in a bicycle tour event on a controlled public road is very unlikely to be involved in a collision with a motor vehicle, however the consequences may well be most serious, with the possibility of a serious injury and possible legal exposure. Therefore a Risk Priority rating of **High** should be applied, with appropriate risk management.

Table 4 : Risk Register/Risk Management

Function/Activity:

Big Dipper (giant swing)

Compiled by:.....

Activity Description:						
<p>General Safety consideration: Known hazards will be identified to all participants, in particular the risks to participants when rules are not followed. Participants will be required to follow the instructors instruction or they may be omitted from the activity. A clearly defined ‘drop zone’ should be marked out to prevent anyone moving into the path of the swing. Riders should be properly harnessed and given a briefing before riding. Haul team is to be given clear instructions and warning of the dangers of not following instruction correctly.</p>						
Primary Risk Category (Refer Table 1.)	Risk description. What and how can it happen	Likelihood (Refer Table 2)	Consequence (Refer Table 3)	Level of Risk (Refer Table 4)	Management. Including existing Control measures to eliminate or reduce the risk. Note: Once the risk management measures listed below are f risks described in column 2 will be reconsidered as having a Level of Risk”.	Priority
1.	Fall from height	E	5	High	<ul style="list-style-type: none"> • Pre-activity briefing conducted by Activity Facilitator • All participants must wear correctly fitted harness and helmet, and safety lanyards • Giant swing has backup cables • Activity Facilitators check that participants are connected to swing and check equipment prior to participant starting 	
2.	Fall from step ladder	D	2	Low	<ul style="list-style-type: none"> • Participants briefed to face ladder when climbing up and down • Activity Facilitator helps spot while participant climbs • Participant wears helmet 	
3.	Impact by participant on swing - To other persons - To ladder	D	3	Medium	<ul style="list-style-type: none"> • Boundaries identified to group at start of the activity • Swinging area (drop zone) clearly marked • Activity Facilitator moves ladder as part of activity procedure prior to each swing 	

Primary Risk Category <small>(Refer Table 1.)</small>	Risk description. What and how can it happen	Likelihood <small>(Refer Table 2)</small>	Consequence <small>(Refer Table 3)</small>	Level of Risk <small>(Refer Table 4)</small>	Management. Including existing Control measures to eliminate or reduce the risk. Note: Once the risk management measures listed below are all risks described in column 2 will be reconsidered as having Level of Risk".	Priority
4.	Whiplash from swinging participant coming to abrupt stop	E	2	Low	<ul style="list-style-type: none"> • No knots or loops tied in tow rope • Pulley guides tow rope • Participants required to hold onto tow rope until participant on swing has pulled cord and instructor clears them to put it down 	
5.	Entanglement of participants pulling haul rope	C	2	Medium	<ul style="list-style-type: none"> • No knots or loops tied in haul rope • Participants briefed on proper hauling technique prior to first swing • Activity Facilitator briefs participants as they haul the rope 	
6.	Entanglement By participant on swing - Hair, clothing or jewellery - Retrieval line	D	2	Low	<ul style="list-style-type: none"> • All loose clothing, jewellery and other objects that may become entangled are to be removed for the activity • Long hair is to be tied back for the activity • Activity Facilitator guides recovery rope while participant is swinging 	
7.	Rope Burn From haul rope	C	2	Medium	<ul style="list-style-type: none"> • Participants briefed on proper tow technique prior to first swing • Activity Facilitator briefs participants as they tow the rope • Participants required to hold onto tow rope until participant on swing has pulled cord • At least 10 participants required to be on the tow rope when pulling/holding 	

8.	Falling Objects Causing injury; eg. equipment, loose items etc.	E	2	Low	<ul style="list-style-type: none"> All equipment is attached to system, regular checks to ensure no loose items Participants briefed on not carrying loose items, participants checked for loose items before going on swing 	
9.	Inverting Where participant flips upside down	E	1	Low	<ul style="list-style-type: none"> Proper harness fitting demonstrated, and harnesses checked for each participant prior to going on swing Harnesses are full body harnesses 	
10.	Participant stuck on swing Emotionally (won't pull cord)	C	1	Low	<ul style="list-style-type: none"> Activity run on challenge by choice principles Participants given choice about height they want to be pulled to Groups encouraged to be supportive Participant can be lowered slowly by haul group 	
11.	Structure Failure Safety of the giant swing structure	E	5	High	<ul style="list-style-type: none"> Load rating checked by engineer Regular inspections of structure ropes and equipment performed by activity staff 	
12.					<ul style="list-style-type: none"> 	