

Glenmore Lodge Transceiver Shovel and Probe Client Survey: Winter 2016 Analysis and Observations



06/07/16

Introduction

As part of the Glenmore Lodge TSP (Transceiver Shovel and Probe) Trial in year 3 a client survey was undertaken. This document looks offers an analysis and observations from that survey. From 920 invitations there were 393 respondents and I would like to take this opportunity to thank all those who took part. This was I believe a great response to what was at times a difficult survey. There was also a great deal of additional information provided from the 598 comments made in the free flow boxes. A number of the areas researched were also looked at from different perspectives and in different ways. This document only refers to this survey, the full picture being left to a full TSP trial report.

The survey was split into several sections and so I will follow that same format here.

The sections being:

Demographic Section: information about the respondent

Your Personal Experience of TSP Training

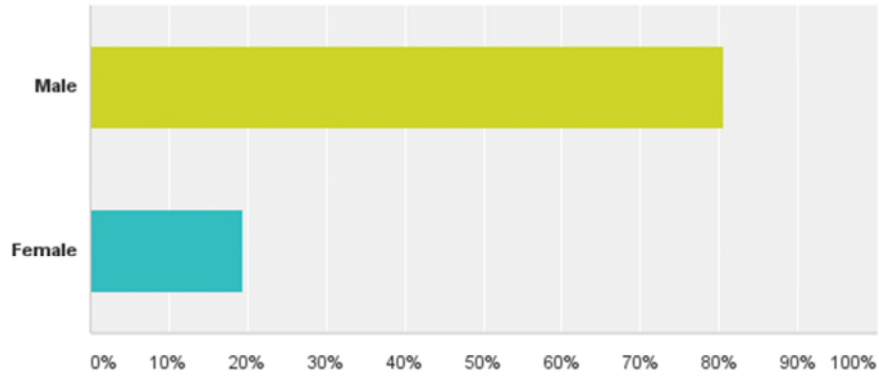
Information Retention

Summary Observations

Demographic Section: information about the respondent

Q1 Are you male or female?

Answered: 393 Skipped: 0

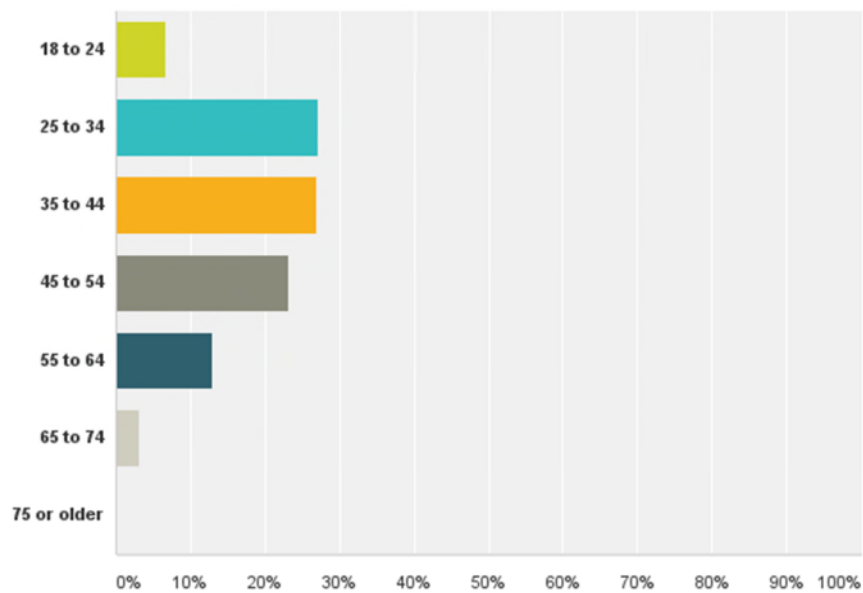


Observations

There was an 80/20 male to female split in respondents.

Q2 What is your age?

Answered: 393 Skipped: 0

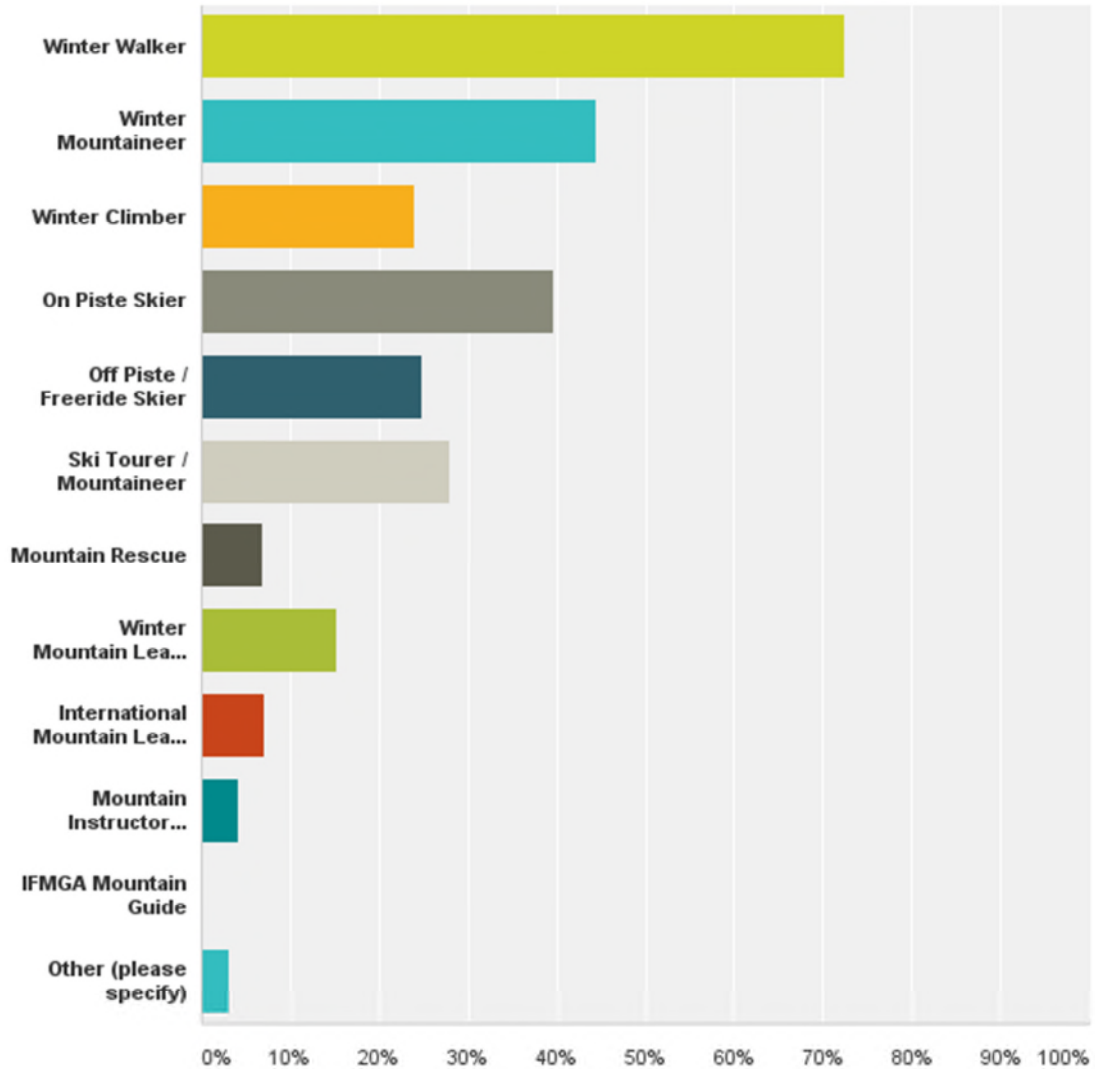


Observations

The age range of 25 to 54 accounts for 77% of respondents

Q3 Your personal outdoor experience; are you a

Answered: 393 Skipped: 0



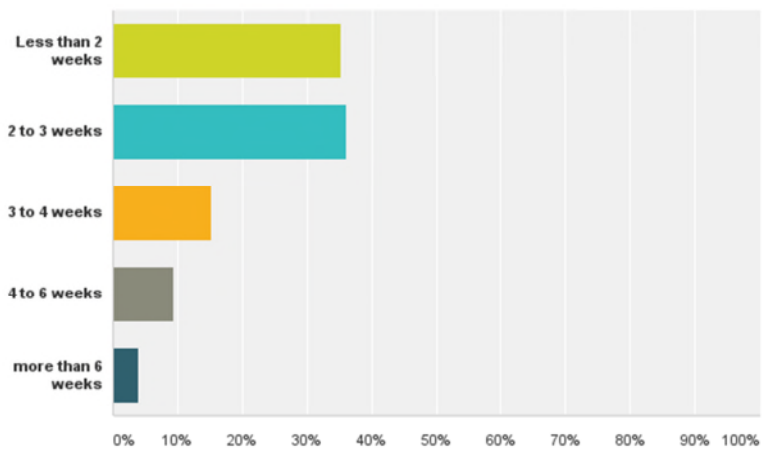
Observations

Whilst there is a broad range of personal experience and qualifications the vast majority of respondents are mountaineers. For key questions the survey does allow us to filter answers so we are able to identify if specific show variance from the groups norms. Later in the report and where it seemed appropriate this has been done

Your Personal Experience of TSP Training

Q5 How long has it been since your TSP training at Glenmore Lodge

Answered: 385 Skipped: 8

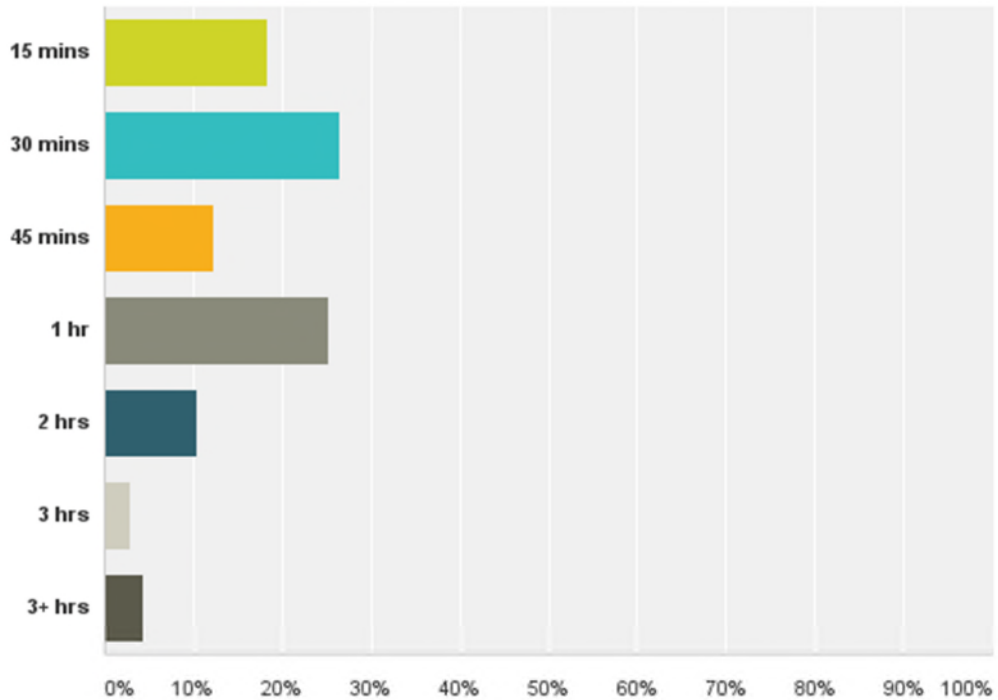


Observations

Question 5 was asked so that we could use it as a reference for the results that will come later around the question of information retention.

**Q6 As best as you can estimate, how much time did you spend training with TSP?
(Please note this does not include and time spent on general avalanche education)**

Answered: 348 Skipped: 45



As best as you can estimate, how much time did you spend training with TSP? (Please note this does not include and time spent on general avalanche education)

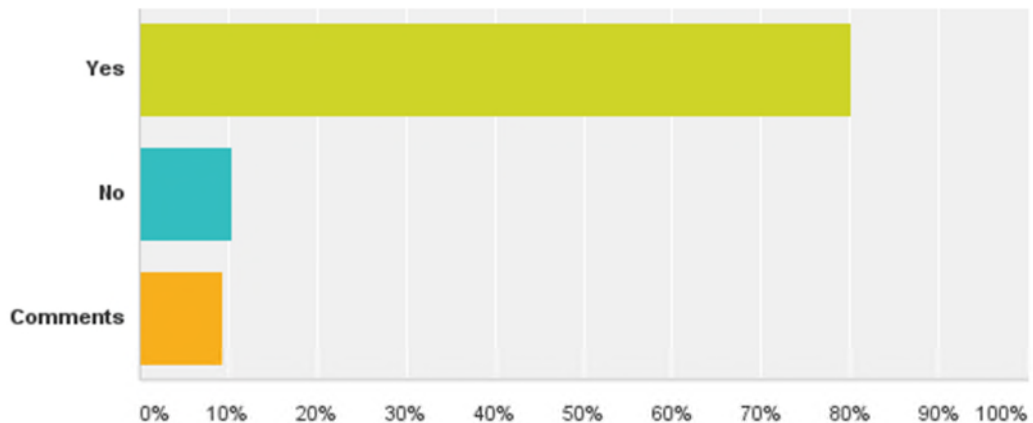
	ALL	Mountain All	Climb	Mountaineering	WML & MIC	Ava	Ski	ALL
Answer Options	Response Percent							Response Count
15 mins	18.4%	19.4%	22.2%	13.0%	42.0%	0.0%	15.9%	64
30 mins	26.4%	30.9%	41.6%	31.0%	22.0%	15.4%	11.6%	92
45 mins	12.4%	13.0%	8.3%	13.0%	15.0%	7.7%	11.6%	43
1 hr	25.3%	25.0%	22.2%	29.0%	11.0%	15.4%	28.9%	88
2 hrs	10.3%	8.6%	5.6%	8.8%	4.5%	30.8%	17.4%	36
3 hrs	2.9%	1.0%	0.0%	0.5%	2.0%	7.7%	11.6%	10
3+ hrs	4.3%	2.0%	0.0%	2.8%	2.0%	23.0%	3.0%	15
answered question								348
skipped question								45

Observations

As we might expect there is a variance with course type here with avalanche courses devoting the most time around subjects involving TSP and NGB courses the least.

Q7 Did you feel safer operating in the winter mountain environment after your TSP training whilst wearing TSP ?

Answered: 348 Skipped: 45



Did you feel safer operating in the winter mountain environment after your TSP training whilst wearing TSP?

Answer Options	Response Percent							Response Count
	ALL	Mtn All	Climb	Mtneering	WML & MIC	Avalanche	Ski	ALL
Yes	80.2%	77.6%	75.0%	79.0%	75.6%	69.0%	89.8%	279
No	10.3%	12.3%	16.6%	11.5%	13.3%	15.4%	4.3%	36
Comments	9.5%	10.0%	8.3%	9.3%	11.1%	15.4%	5.8%	33
answered question								348
skipped question								45

A Sample from the Additional Comments

If we had had lots of snow then definitely. As it was snow was patchy.

I felt that TSP was unnecessary for the winter climbing course. Good route choice made carrying the equipment an inconvenience rather than a necessity.

I would always take the same precautions.

Not really as I already knew how to use it. Always good to practice though and get slicker.

No because we stayed away from avalanche risk areas, but would have felt safer on more adventurous routes

Observations

It seems clear that the answer to this question is yes. However a quick read of the comments shows us that a good number indicate that they were aware of an approach that values avoidance of avalanche dangers with some recognising an added value gained by carrying avalanche rescue equipment.

Question 8

Did you feel the TSP training at Glenmore Lodge was beneficial?

Answer Options	Strongly Disagree	Disagree	Unsure	Agree	Agree Strongly	Rating Average	Response Count
All Respondents	1%	1%	8%	45%	45%	3.41	348
Mtn All	1%	1%	8%	50%	40%	3.36	268
Climb	0%	0%	13%	47%	39%	3.39	36
Mtneering	2%	1%	8%	48%	42%	3.38	182
WML & MIC	2%	0%	4%	58%	36%	3.31	45
Avalanche	0%	0%	8%	38%	54%	3.54	13
Ski	1%	1%	9%	26%	62%	3.58	68
Comments							104
answered question							348
skipped question							45

A Sample from the Additional Comments

As I understand it, walkers/climbers that die in UK avalanches often do so from internal injuries, rather than asphyxiation. Despite this, I still think it's a worthwhile addition to the course for general mountain awareness, potential overseas use, and should the delegate decide to carry TSP in the UK anyway.

Helpful to know there is equipment like that available

The training really left the impression better not 2 be in a risky situation in the first place! Being 5ft2 the transceiver belt was too long, even on short & v difficult to keep it out of the hip belt/ bending it got in the way. Maybe some shorter harnesses could be considered?

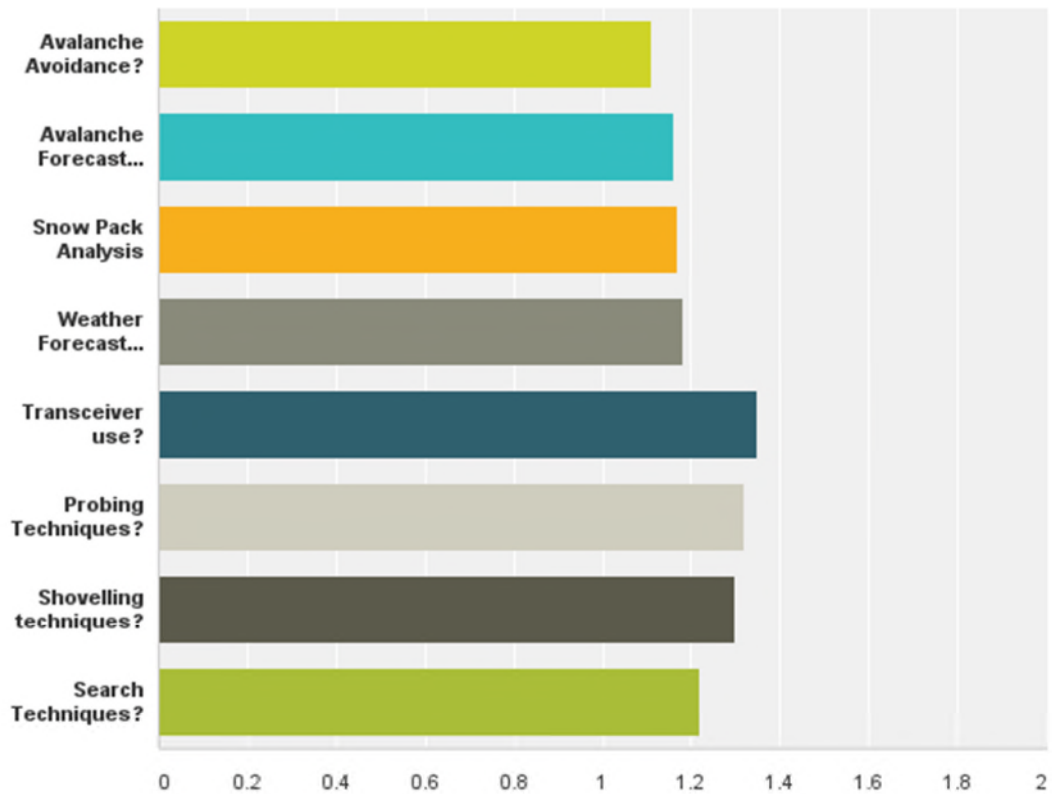
I could see more benefit in more challenging conditions and more relevance in alpine environment. that said I now know the kit exists and how it could be used.

Observations

There is an overwhelming statement here that this training is beneficial on Lodge courses.

Q9 When on a Glenmore Lodge course would you opt for further training in the following subjects? Please tick as many of the following subjects as you feel appropriate...

Answered: 348 Skipped: 45



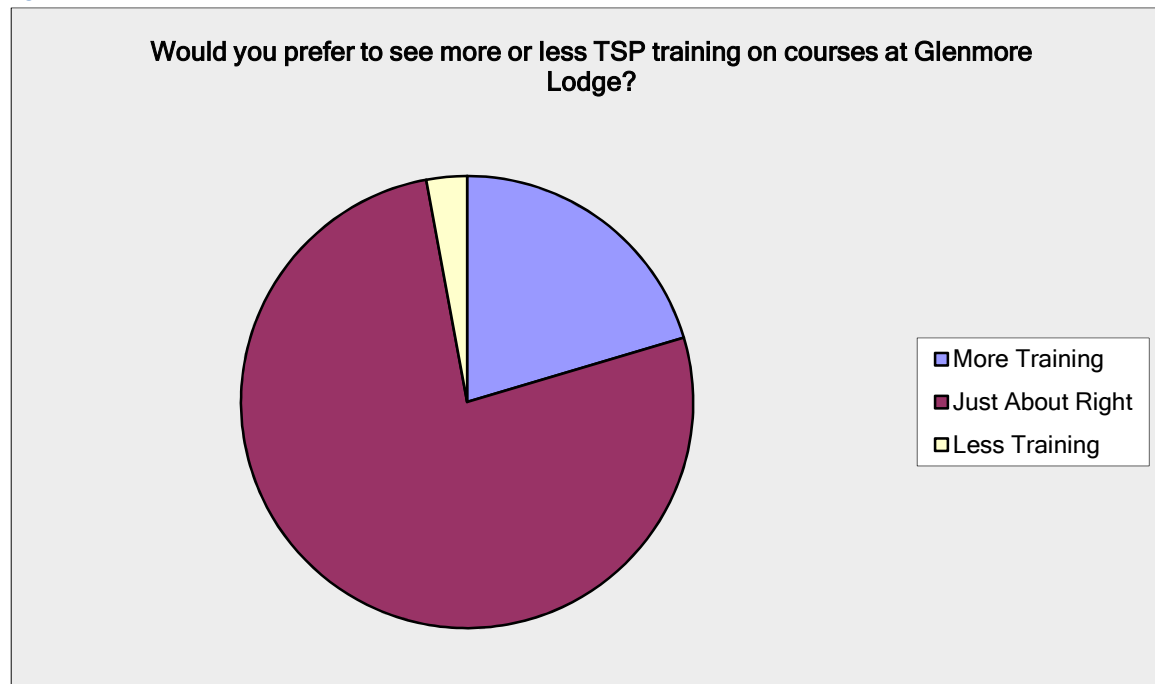
When on a Glenmore Lodge course would you opt for further training in the following subjects? Please tick as many of the following subjects as you feel appropriate...

Answer Options	Yes	No	Rating Average	Response Count
Avalanche Avoidance?	297	36	1.11	333
Avalanche Forecast Interpretation?	266	52	1.16	318
Snow Pack Analysis	264	53	1.17	317
Weather Forecast Interpretation?	259	57	1.18	316
Transceiver use?	188	101	1.35	289
Probing Techniques?	199	92	1.32	291
Shovelling techniques?	202	88	1.30	290
Search Techniques?	248	69	1.22	317
<i>answered question</i>				348
<i>skipped question</i>				45

Observations

Generally the majority of respondents indicated that they would like further training in all of the subjects suggested. Further training in Avalanche Avoidance ranks more strongly than training in the subjects associated with rescue. The responses to this question are probably best read alongside those to the next – Q10.

Question 10



Would you prefer to see more or less TSP training on courses at Glenmore Lodge?

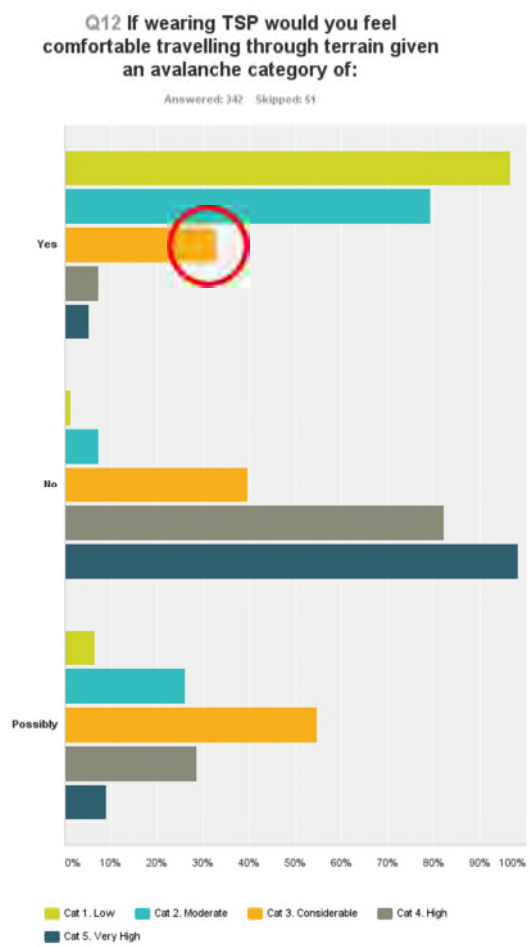
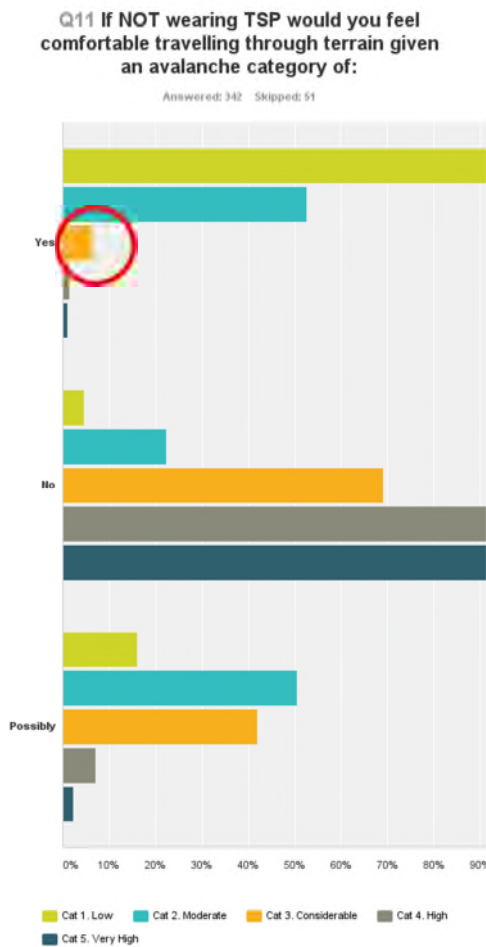
Answer Options	Response Percent							Response Count
	ALL	Mtn All	Climb	Mtneering	WML & MIC	Avalanche	Ski	ALL
More Training	20.4%	17.9%	11.1%	15.4%	33.3%	38.5%	30.4%	71
Just About Right	76.7%	78.3%	80.5%	82.4%	62.2%	46.2%	69.6%	267
Less Training	2.9%	7.7%	8.3%	2.2%	4.4%	15.4%	0.0%	10
answered question								348
skipped question								45

Observations

It would appear that we are for the most part delivering a product that the respondents liked. A large majority suggesting that we are getting the balance right with many indicating that they would like to see more training done. There would appear to be two areas to investigate further. Whilst in the minority, there is a desire from some for less training in TSP. Most significantly this is around the avalanche courses, but also to a lesser extent around climbing and mountaineering courses. It is not obvious if this is for the same reasons, and so is an area that we might wish to research further.

Questions 11 & 12

These 2 questions are perhaps best considered together so the charts appear here side by side for comparison. The figures are also shown on a combined table following.



Would you feel comfortable travelling through terrain given an avalanche category of...							
	Answer Options	Cat 1. Low	Cat 2. Moderate	Cat 3. Considerable	Cat 4. High	Cat 5. Very High	Response Count
If NOT wearing TSP	Yes	283	152	19	4	3	289
If WEARING TSP	Yes	313	257	106	24	17	324
If NOT wearing TSP	No	15	74	228	312	327	330
If WEARING TSP	No	4	22	119	247	295	300
If NOT wearing TSP	Possibly	36	113	94	16	5	224
If WEARING TSP	Possibly	14	56	117	61	19	214
	Further comments?						74
						<i>answered question</i>	342
						<i>skipped question</i>	51

Observations

The responses to questions 11 & 12 would appear to indicate some mixed messages. Possibly even indicate some answers that are in conflict to responses and comments elsewhere in the survey.

As we would expect as the hazard level increases as indicated by the category all groups migrated in their responses from being comfortable to not being comfortable to travel through this terrain.

There are however a number of concerning comparisons that would indicate that if wearing TSP individuals would be comfortable in terrain where without they would not. Specifically if we look at the figures circled in red. This indicates that a much higher number of respondents would be comfortable travelling in a Considerable avalanche risk environment if they are wearing TSP. Is this evidence of risk homeostasis? If so this would appear to persist despite the education that Glenmore Lodge would impart to help mitigate against it. This must be an area for further thought.

There would appear to be an unacceptably high acceptance or comfort around risk. It is higher when considering wearing TSP, but comfort levels seem high from respondents when considering avalanche terrain with or without TSP. This is worthy of further thought. Whilst I believe that our messages at the Lodge are clear and strong, this does not seem reflected in the responses. Reading through the 142 comments submitted for these 2 questions, overwhelmingly (and reassuringly) most of the comments would support the GL message around travel in avalanche terrain. It is possible to find a few that would support the areas of concern. Perhaps for some reason it is the more knowledgeable that have made comment?

Perhaps this questions the validity of the question?

A Sample from the Additional Comments

In support of respondents being comfortable travelling in higher risk areas

It might make me a bit less risk averse on some slopes which posed a greater risk. This would definitely still involve risk assessment around other people being able to see me get avalanched, potentially other group members having TSP.

Might consider riskier areas. But do not regard the transceiver as making avalanches less likely and would rather not be in a risk area.

In support of respondents thinking in accordance with GL teaching around travelling through terrain with avalanche risk

Would not pin my hopes of survival on being dug out.

TSP should be considered alongside other heuristic traps.

I do not wish to be avalanched, with or without a transeiver, as such it should not affect my route planning.

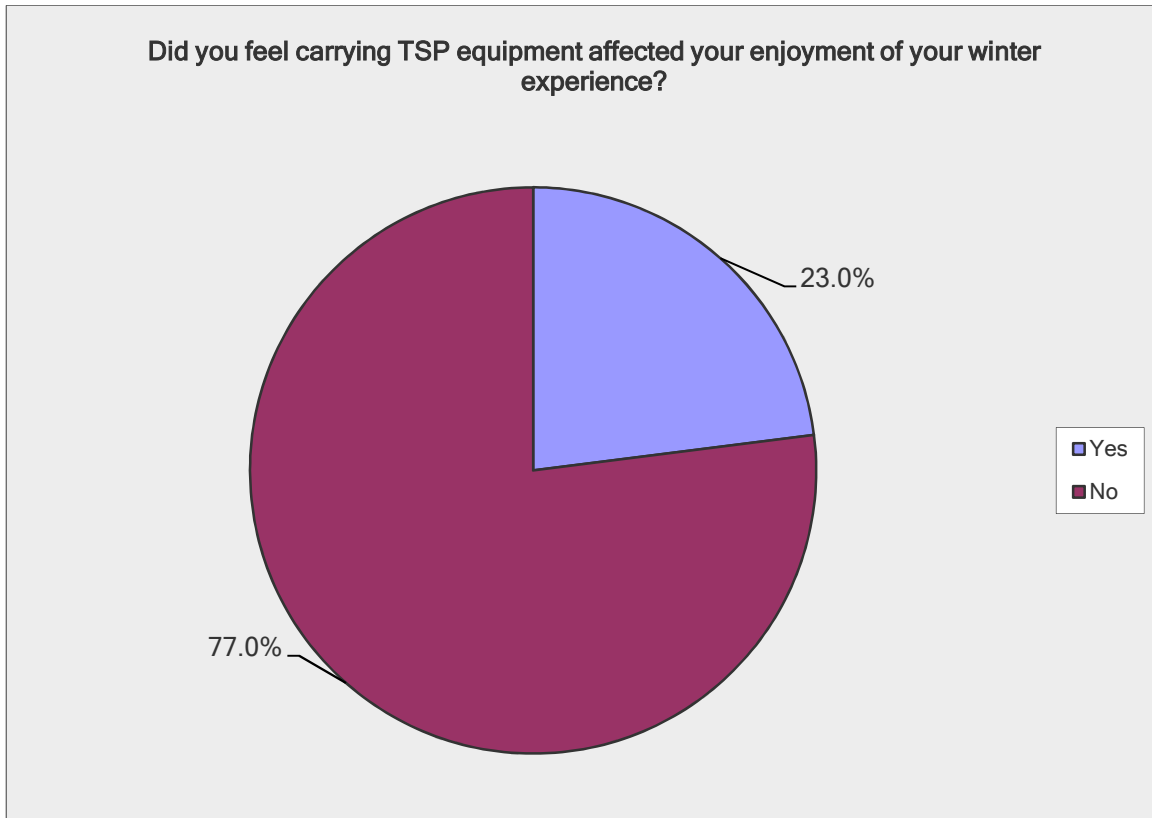
If I was walking/mountaineering I would likely be comfortable on all categories with proper planning to avoid hazard areas etc.

Wearing a transceiver doesn't make me feel any safer. I wear on the basis that if things go wrong I stand a better chance, but that probably isn't much of a chance.

Depends on the terrain and avolidability

I would make decision based on whether I could plan a route around danger areas following ridge lines etc to stay in safer areas.

Question 13



Did you feel carrying TSP equipment affected your enjoyment of your winter experience?								
Answer Options	Response Percent							Response Count
	All	Mtn All	Climb	Mtneering	WML & MIC	Avalanche	Ski	All
Yes	23.0%	20.2%	25.0%	20.0%	17.8%	23.0%	31.9%	80
No	77.0%	80.0%	75.0%	80.0%	82.2%	76.9%	68.1%	268
If you answered yes please briefly explain ...								91
answered question								348
skipped question								45

There was an interesting challenge with this question.

We can state that 77% of respondents didn't feel that their enjoyment of their GL course was affected by the carrying of TSP. Here comes the challenge. When we refer to the 91 comments given it is clear that of those who thought it did affect their experience some thought it had a positive affect and some a negative. I have put responses into categories and the results can be seen in the following table. (Note: Some comments fell into more than one category)

	Course affected positively	Course affected negatively	Neutral
Totals	46	22	27

A Sample from the Additional Comments

I enjoyed it more because I relished the training ...not sure if that is yes or no...

Gave more confidence that should you find yourself in trouble then you're following best practise, have better chance of survival. Will definitely invest in relevant gear for ski touring and wouldn't go without (bit like wearing a helmet cycling, didn't use these before, but now wouldn't cycle without).

Could have known before course we had to carry equipment ie shovel, probe as rucksack choice would have been bigger.

Yes, affected my enjoyment in a very positive way. This is the whole reason for carrying out such training, to gain knowledge, experience and confidence.

Found wearing the transceiver quite restricting.

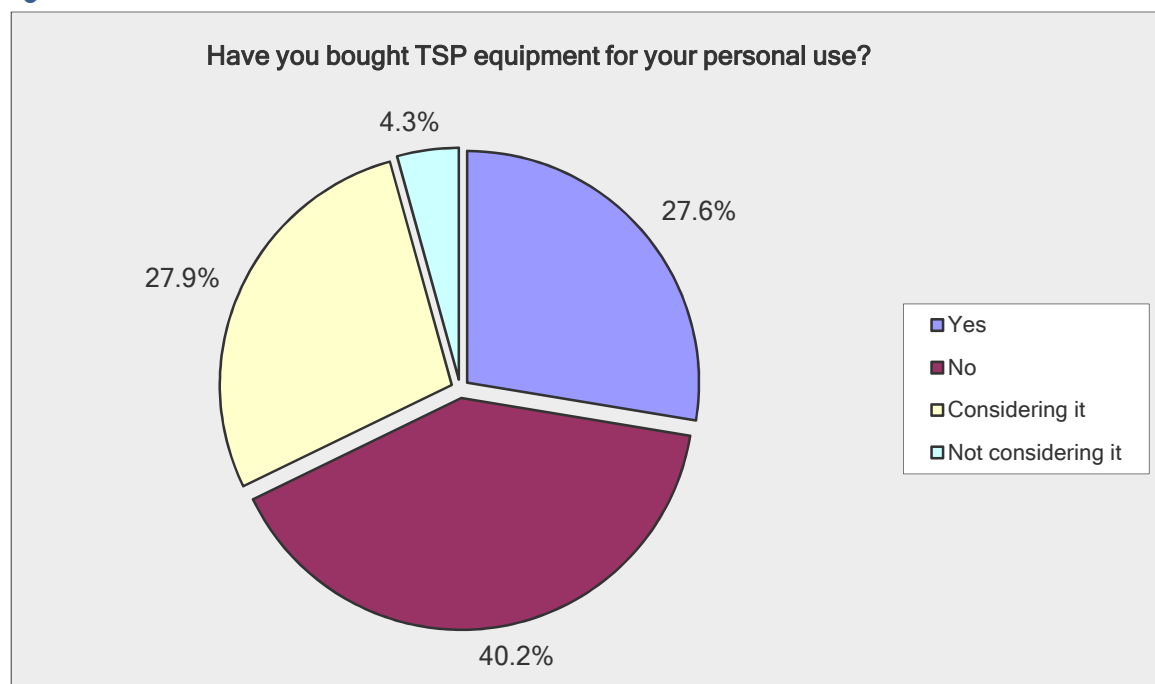
Although risk was low, it felt good to carry it in preparation for further touring.

Observations

This additional data supports the notion that courses were in the most part not negatively affected by the use of TSP. This is an important statement as it was an area that 3 seasons ago we would have had serious concerns about. The negative comments were mostly around the weight of the kit and the discomfort of the transceiver. We might have thought that the climbing courses would have been more negatively affected but with a variance of only 2% from the norm this does not seem significant.

On balance we can say that across the board respondents do not feel negatively affected by carrying TSP

Question 14



Have you bought TSP equipment for your personal use?

Answer Options	Response Percent							Response Count
	All	Mtn All	Climb	Mtneering	WML & MIC	Avalanche	Ski	All
Yes	27.6%	19.4%	13.9%	9.9%	55.6%	69.2%	50.7%	96
No	40.2%	48.1%	44.4%	56.0%	24.4%	0.0%	15.9%	140
Considering it	27.9%	26.8%	36.1%	27.0%	20.0%	23.0%	33.3%	97
Not considering it	4.3%	5.6%	5.6%	7.0%	0.0%	7.7%	0.0%	15
	100.0%	99.9%	100.0%	99.9%	100.0%	99.9%	99.9%	
<i>answered question</i>								348
<i>skipped question</i>								45

Observations

The overall figures here would appear to paint the correct picture. When we break down the information by course we see a massive variance with nearly 70% of people attending avalanche courses owning TSP as contrasted with only 10% of those attending mountaineering courses. It is interesting to speculate the reasons for some of this variance. Some thoughts around this are that it may be that:

- Skiers as a sport have a culture of using TSP so we should not be surprised by the high level of ownership. Looking further into the figures we see the following:

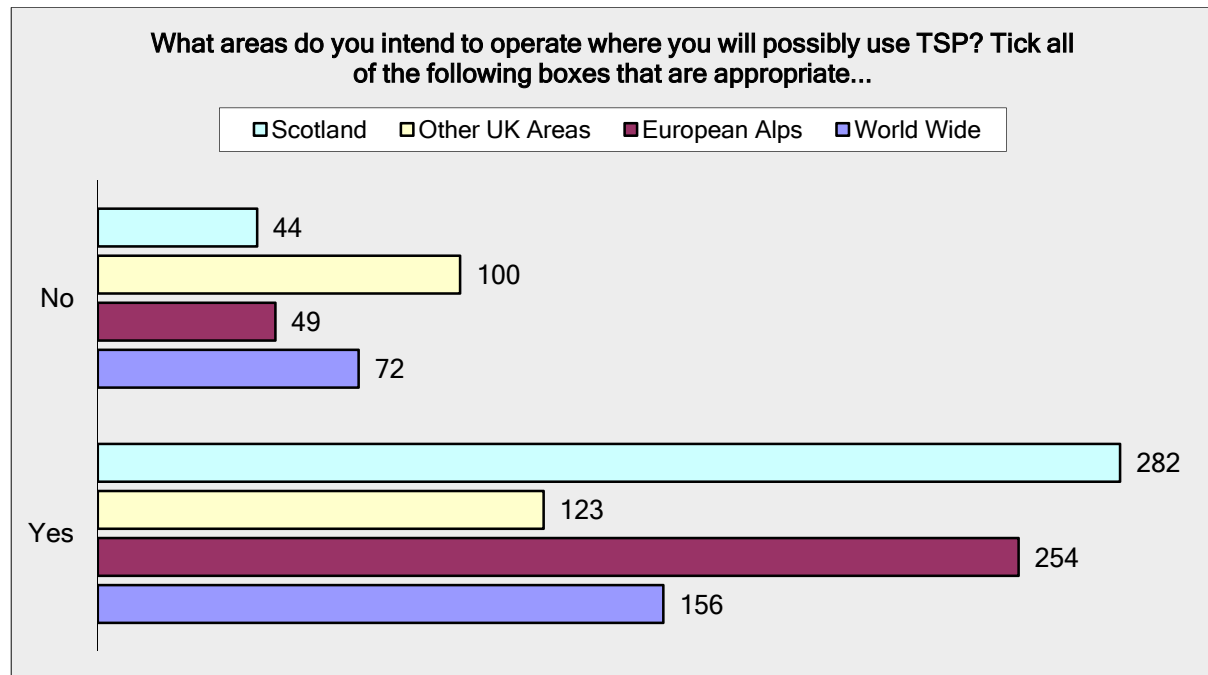
	Ski Intro Courses	Ski Advanced Courses
Yes	30%	70%
No	18.18%	10%
Considering it	50.52%	20%
Not considering it	0%	0

- Ownership was intriguingly high amongst respondents who had attended WML & MIC course. Looking into the figures we see the following:

	WLM Tr & Ass	MIC Tr & Ass
Yes	51.35%	75%
No	27.03%	12.5%
Considering it	21.62%	12.5%
Not considering it	0%	0%

Overall it would appear that ownership of TSP was also related to experience within the winter mountain sports. Perhaps with TSP being used in other sports or abroad or perhaps at home?

Question 15



What areas do you intend to operate where you will possibly use TSP? Tick all of the following boxes that are appropriate...

Answer Options	Scotland	Other UK Areas	European Alps	World Wide	Response Count
Yes	282	123	254	156	317
No	44	100	49	72	128
<i>answered question</i>					348
<i>skipped question</i>					45

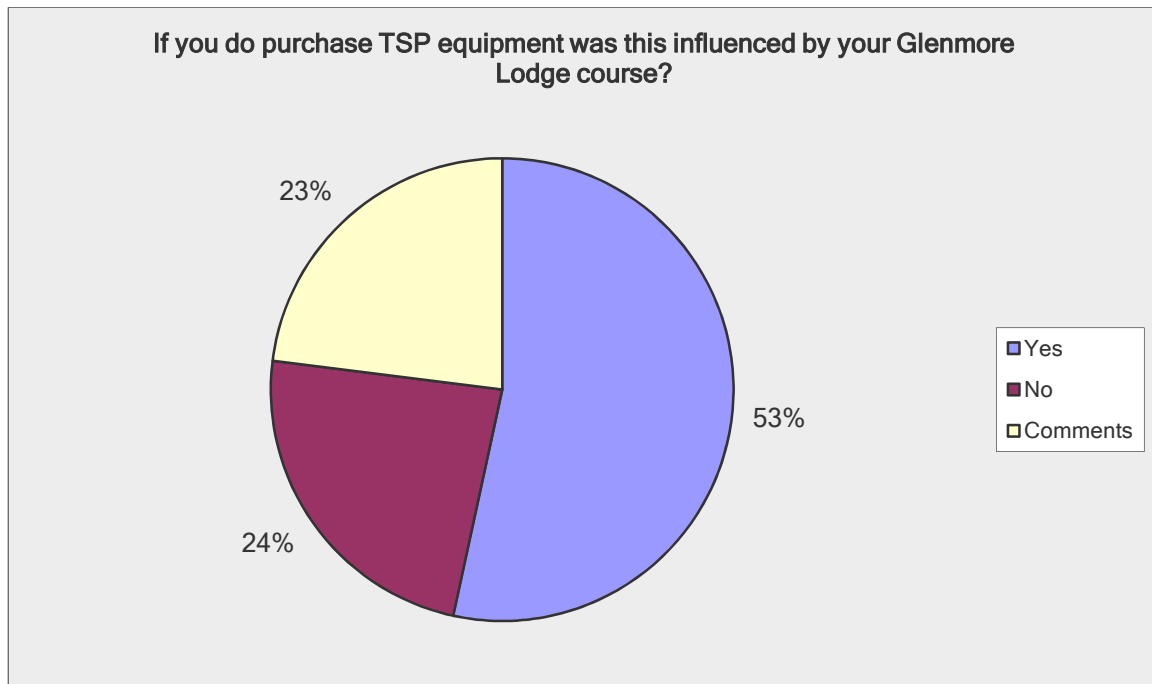
Observations

This would appear to show that the majority of respondents would consider using TSP in the future and particularly in Scotland and the European Alps. Whilst this is perhaps not a surprise it does help us know our audience and tailor the education we provide.

I have chosen not to show the statistical variance here as most groupings show a similar pattern. A summary would be as follows:

Mtn Only & Climb	both are similar to the norm
WML & MIC	Similar to the norm with the addition of a greater potential worldwide use
Ski	Similar to the norm geographically but with a greater overall intended usage
Ski Alpine	Similar to Ski but with greater alpine usage
Avalanche	Similar to the norm geographically but with a greater overall intended usage

Question 16



Whilst the majority said yes to this question there were a large number of comments given (80).

A Sample from the Additional Comments

I will be avoiding avalanche risk areas in my walking trips as a result of this course.

Bought pieps equipment

Didn't know it was generally available before the course.

It's made me aware of how they work. Costs personally are prohibitive.

*I am considering investing in a probe and shovel, as these are more accessible pieces of equipment
I will almost certainly not be purchasing a transceiver in the near future due to cost.*

*It is for use skiing - where traveling occurs on a wider ranging basis, and the possibility of shallow
burial is higher than the risk of trauma*

Dont use often enough to purchase but would hire a unit

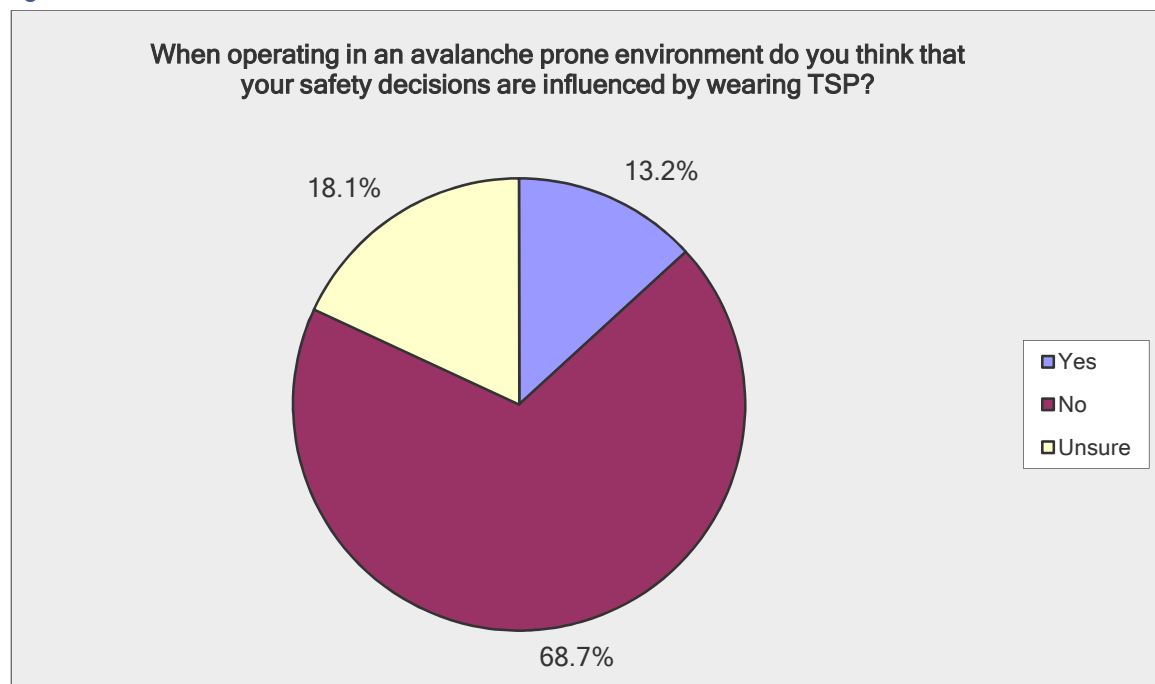
I had never heard of it elsewhere.

*I think I have already made the decision to purchase my own equipment however the free use of the
equipment that the lodge has help me make a decision on which brand/equipment to buy.*

Observations

We know that Glenmore Lodge influences those on our courses. From an educational point of view it is interesting to see the messages taken away from our clients' time with us. There has also been discussion around the educational value of using TSP. I think that these comments support the idea that this adds educational value to our courses.

Question 17



When operating in an avalanche prone environment do you think that your safety decisions are influenced by wearing TSP?								
Answer Options	Response Percent							Response Count
	All	All Mtn	Climb	Mtneering	WML & MIC	Avalanche	Ski	All
Yes	13.2%	10.0%	2.8%	13.2%	4.4%	23.0%	10.0%	46
No	68.7%	72.0%	72.2%	67.7%	84.4%	69.3%	72.0%	239
Unsure	18.1%	18.0%	25.0%	18.1%	11.1%	7.7%	20.0%	63
Comments								96
answered question								348
skipped question								45

Observations

Matt Groves' perceptual study showed that risk homeostasis is indicated to be a concern particularly in more novice groups (Risk perceptions, attitudes and behaviours: perspectives on transceiver use in Scottish mountaineering). The concern whilst significant was (he suggested) best dealt with as a heuristic trap and mitigated against in a similar way. The statistics here would appear to show that

1. Nearly 70% of respondents did not feel their judgement would be influenced by carrying TSP
2. That 13% thought they would

So how is this affected by experience levels?

	Ski Intro Courses	Ski Advanced Courses
Yes	30.3%	15%
No	57.6%	50%
Unsure	12.12%	35%

	WLM Tr & Ass	MIC Tr & Ass
Yes	5.4%	0%
No	81%	100%
Unsure	13.5%	0%

We can say that as individuals become more experienced, that they believe that their judgement is less affected adversely by carrying TSP. This may well be the case, but may also be another heuristic trap that experts are susceptible to? Is this another area for consideration?

A Sample from the Additional Comments

I simply would not ski off piste without TSP. However, I would not expose myself to significant risk of avalanche, expecting TSP to save me if it happened. The most important thing is to use knowledge to avoid being avalanched in the first place.

I think if anything it just enforces the saftey message and care needed.

If so, only subconsciously

Need to be careful to not think of TSP kit as meaning you can take more risks.

Avoidance is key

forgot I was wearing one most of the time.

Question 18

If wearing TSP please tick any of the following options that you feel apply to you.

Answer Options	Response Percent	Response Count
You feel that you are more able to make bold decisions when traveling in avalanche terrain	3.8%	13
You feel that you make sensible travel decisions based on the avalanche information available	70.7%	244
You like the idea of wearing TSP as it makes you safe	20.6%	71
You don't like wearing TSP as it feels like you are preparing to enter a dangerous place	3.2%	11
You don't feel that the use of TSP effects your decision making process around traveling through avalanche terrain	65.5%	226
Comments	15.1%	52
	answered question	345
	skipped question	48

Observations

Generally very good answers here

A Sample from the Additional Comments

Things can go wrong in the mountains and TSP helps in that situation. But I definitely don't rely on it. I hope it never gets used.

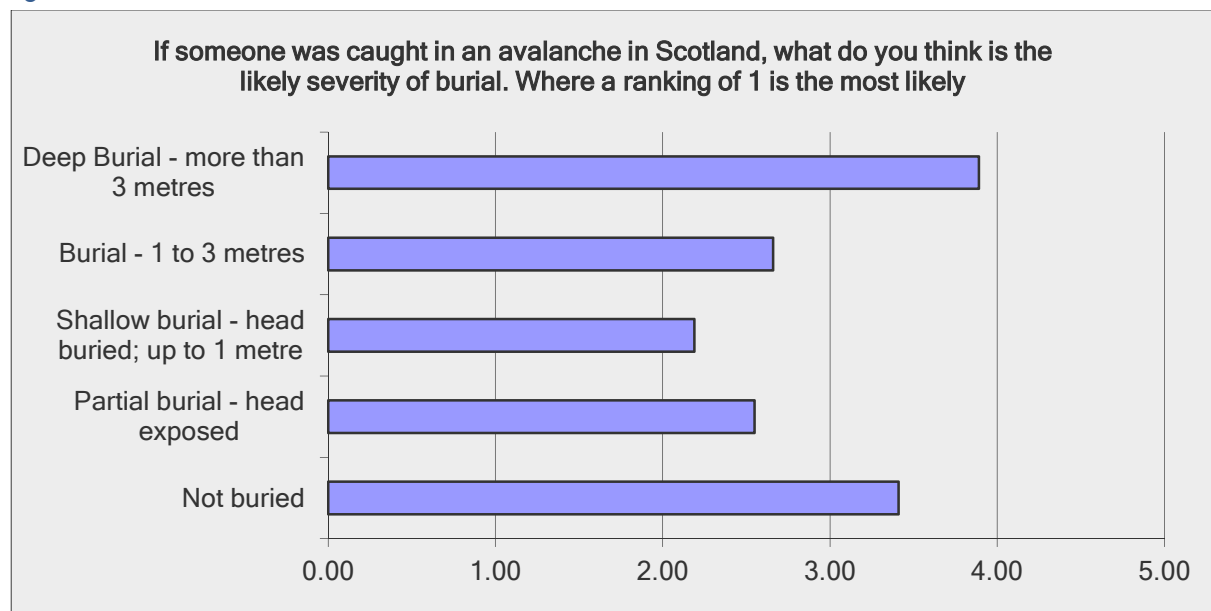
Having safety equipment should never be an excuse to make more bold decisions. Knowing that you and your group are well prepared and thinking wisely, should help reduce stress and worry, and aid good decision making.

.. I think it is just a sensible safety option when in that environment. However it wouldn't make me feel any more or less safe

Re "You like the idea of wearing TSP as it makes you safe " - I would not say "safe" but safer than not wearing it.

Safer, not safe. Decisions not based on kit but risk

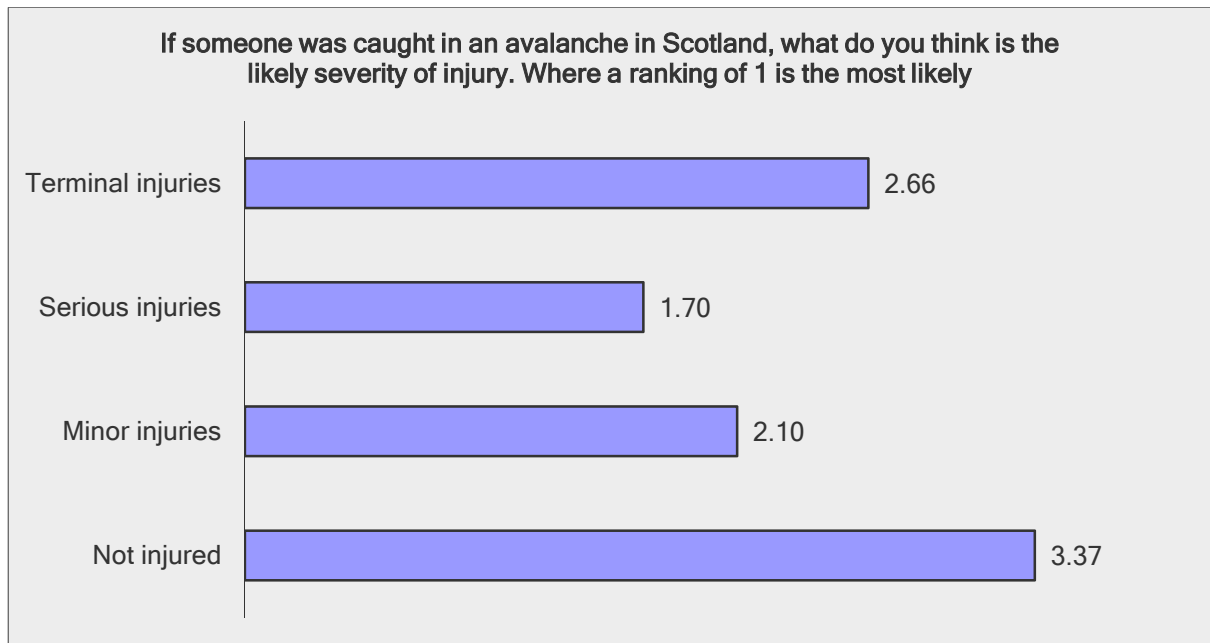
Question 19



Observations

Again this question gives an insight into the beliefs of our students. A quick comparison shows that this is similar across all of our courses.

Question 20

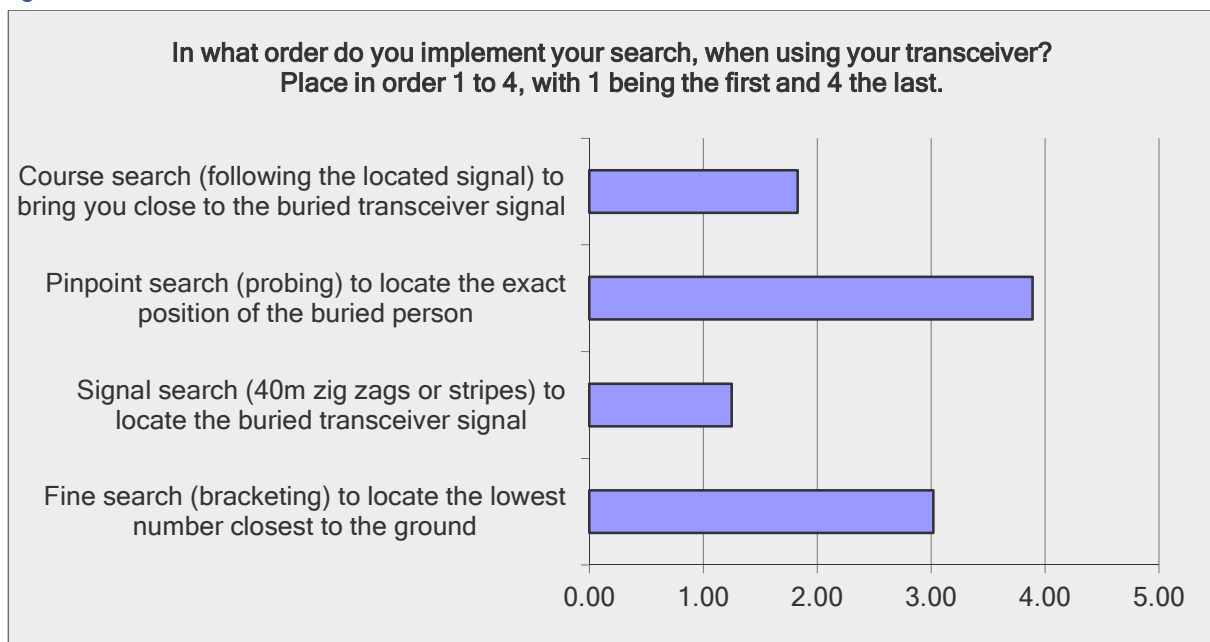


Observations

Again this question gives an insight into the beliefs of our students. A quick comparison shows that this is similar across all of our courses.

Information Retention

Question 21



Observations

Again this question gives an insight into the beliefs of our students. A quick comparison shows that this is similar across all of our courses.

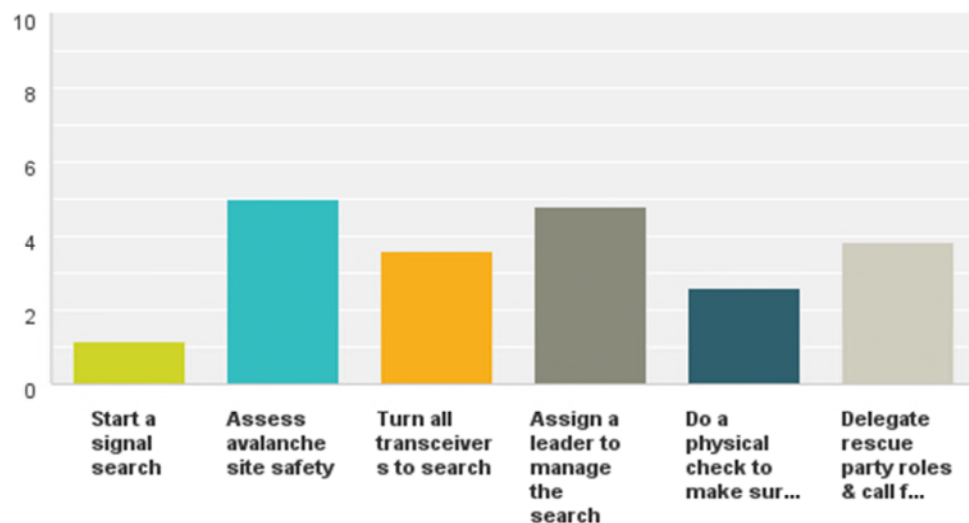
The vast majority getting this sequence correct. It should be remembered that respondents were asked NOT to refer to additional information to answer these questions as they were to measure retention as well as understanding of knowledge.

This positive outcome remains the same for respondents who completed the survey more than 2 weeks following their course.

Question 22

Q22 You are a member of a group and you witness an avalanche that you can assist with, place in order of organisation with 1 being the first task and 6 being the final task.....

Answered: 289 Skipped: 104



You are a member of a group and you witness an avalanche that you can assist with, place in order of organisation with 1 being the first task and 6 being the final task.....

Answer Options	1	2	3	4	5	6	Rating Average	Response Count
Start a signal search	0	0	2	4	34	249	5.83	289
Assess avalanche site safety	157	49	41	13	27	2	2.00	289
Turn all transceivers to search	9	43	77	148	11	1	3.39	289
Assign a leader to manage	95	103	48	22	19	2	2.21	289

the search								
Do a physical check to make sure everyone's transceiver is on search	0	9	36	77	162	5	4.41	289
Delegate rescue party roles & call for help	28	85	85	25	36	30	3.16	289
							<i>answered question</i>	289
							<i>skipped question</i>	104

Observations

Again this question gives an insight into the beliefs of our students. A quick comparison shows that this is similar across all of our courses

Whilst it may not be obvious from first look at the charts the vast majority are again getting this sequence correct.

This positive outcome remains the same for respondents who completed the survey more than 2 weeks following their course.

Question 23

When solo searching for a signal (Signal Search) from a buried avalanche victim; choose any of the correct following options....

Answer Options	Response Percent	Response Count
Turn your transceiver off?	1.4%	4
Look for surface clues?	92.0%	266
Start probing randomly?	0.3%	1
Start your search from the point last seen?	83.0%	240
Use 40m distancing between your strip search?	52.2%	151
Randomly switch your transceiver back on to send just in case you get avalanched?	2.4%	7
Follow arrows on your transceiver whilst reducing the numbers indicated?	94.5%	273
Take your rucksack off to allow faster searching?	13.8%	40
	<i>answered question</i>	289
	<i>skipped question</i>	104

Observations

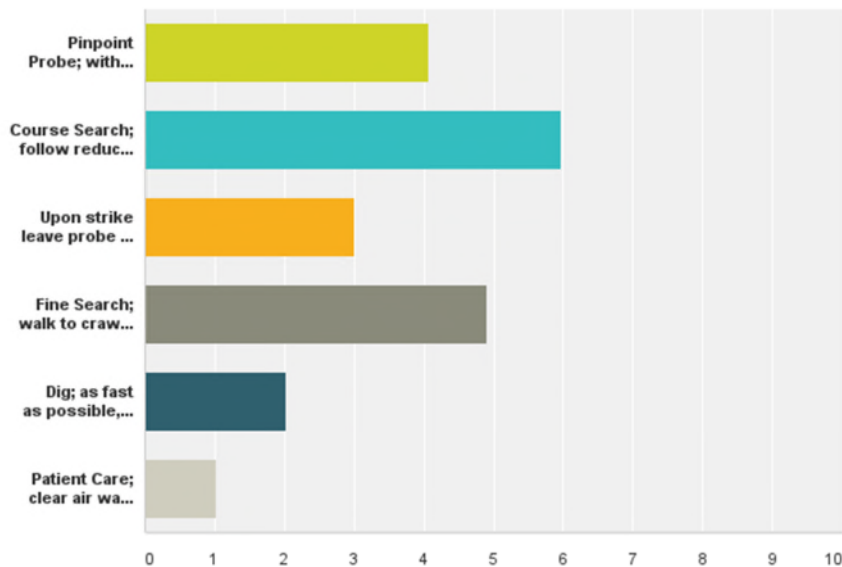
Again this question gives an insight into the beliefs of our students. A quick comparison shows that this is similar across all of our courses.

This positive outcome remains the same for respondents who completed the survey more than 2 weeks following their course.

Question 24

Q24 When Companion Rescuing (solo searching for 1 person) once you have located a strong signal on your transceiver; number in order of preference 1 being the first task and 6 being the final task from the list of options below....

Answered: 289 Skipped: 104



When Companion Rescuing (solo searching for 1 person) once you have located a strong signal on your transceiver; number in order of preference 1 being the first task and 6 being the final task from the list of options below....

Answer Options	1	2	3	4	5	6	Rating Average	Response Count
Pinpoint Probe; with 25cm spacing, concentric circles	3	18	265	2	1	0	2.93	289
Course Search; follow reducing numbers and large direction arrow indicated on transceiver, move fast	284	3	1	0	0	1	1.03	289
Upon strike leave probe in place, to mark causality	1	0	4	276	8	0	4.00	289
Fine Search; walk to crawl after 10m displayed on transceiver, bracket to find the lowest number displayed on transceiver	0	267	18	3	1	0	2.09	289
Dig; as fast as possible, 1.5 x the buried depth down hill of the causality, less than 1m buried dig straight down	0	1	1	7	278	2	4.97	289
Patient Care; clear air way, check ABCs, protect neck & spine, treat for injuries, shock & hypothermia	1	0	0	1	1	286	5.97	289

<i>answered question</i>	289
<i>skipped question</i>	104

Observations

Again this question gives an insight into the beliefs of our students. A quick comparison shows that this is similar across all of our courses

Whilst it may not be obvious from first look at the charts the vast majority are again getting this sequence correct.

This positive outcome remains the same for respondents who completed the survey more than 2 weeks following their course.

Question 25

Choose from the following answers the correct digging and first aid options...		
Answer Options	Response Percent	Response Count
Rotate digging team frequently	92.0%	266
Better to dig with your hands than a shovel	0.3%	1
If the buried person is less than 1m deep, dig down directly to them	69.2%	200
When digging it's best to hold your breath as this helps you to understand how it feels to be buried	0.7%	2
Ideally dig around the buried person leaving them laying on a snow shelf	20.1%	58
If the buried person is more than 1m deep, start digging into them from 1.5x the burial depth	76.8%	222
Once you have located the buried person with probe, take your time digging them out	1.0%	3
Take care when approaching the buried person when digging	66.4%	192
Expose feet first when first aid assessing the buried person	0.3%	1
Airway Breathing Circulation are your main priorities when assessing the buried person	97.6%	282
Drag the buried person out of the hole as fast as you can	8.0%	23
If safe to do so leave the person where you have dug them out until professional help arrives	70.6%	204
	<i>answered question</i>	289
	<i>skipped question</i>	104

Observations

Again this question gives an insight into the beliefs of our students. A quick comparison shows that this is similar across all of our courses.

This positive outcome remains the same for respondents who completed the survey more than 2 weeks following their course.

Summary Observations

The Survey Group

Whilst there is a broad range of personal experience and qualifications the vast majority of respondents are mountaineers, this range matches the courses undertaken. For key questions the survey does allow us to filter answers so we are able to identify if specific groups show variance from the groups norms. Almost 80% of our respondents fall into the age range of 25 to 54 and there is an 80/20 male to female split

Your Personal Experience of TSP Training

As we might expect the time spent training around TSP varied between course types. With avalanche courses devoting the most time around subjects involving TSP and NGB courses the least.

It seems clear that students felt safer using TSP and following training in its use. However a quick read of the comments shows us that a good number indicate that they were aware of an approach that values avoidance of avalanche dangers with some recognising an added value gained by carrying avalanche rescue equipment.

"... we stayed away from avalanche risk areas, but would have felt safer on more adventurous routes"

Overwhelming TSP training was identified as being beneficial on Lodge courses. This comment captured the feelings of many:

"As I understand it, walkers/climbers that die in UK avalanches often do so from internal injuries, rather than asphyxiation. Despite this, I still think it's a worthwhile addition to the course for general mountain awareness, potential overseas use, and should the delegate decide to carry TSP in the UK anyway."

We are clearly delivering a product that the respondents liked. A large majority suggesting that we are getting the balance right with many indicating that they would like to see more training done. Generally the majority of respondents indicated that they would like further training in a range of avalanche education areas. Notably avalanche avoidance ranks more strongly than training in the subjects associated with rescue.

As we might have expected, respondents indicated that they would be progressively less comfortable travelling through terrain as the avalanche hazard increased. There was some evidence to support risk homeostasis. This was most powerfully illustrated in Category 3 where 32% said they would be comfortable in this terrain if they had TSP as opposed to only 6.6% if they did not. This would appear to persist despite the education that Glenmore Lodge imparts to help mitigate against it. This must be an area for further thought. This area of questioning also would appear to indicate an unacceptably high acceptance or comfort around risk. Comfort levels seem high from respondents when considering avalanche terrain with or without TSP. This is worthy of further thought. Whilst I believe that our messages at the Lodge are clear and strong, this does not seem reflected in the responses. Reading through the 142 comments submitted for these 2 questions, overwhelmingly (and reassuringly) most of the comments would support the GL message around travel in avalanche terrain. Perhaps there are issues around the validity of the question?

“It might make me a bit less risk averse on some slopes which posed a greater risk. This would definitely still involve risk assessment around other people being able to see me get avalanched, potentially other group members having TSP.”

“Wearing a transceiver doesn't make me feel any safer. I wear on the basis that if things go wrong I stand a better chance, but that probably isn't much of a chance.”

Interestingly courses were not in the most part negatively affected by the use of TSP. This is an important statement as only 3 seasons ago we would have had serious concerns about this. The negative comments were mostly around the weight of the kit and the discomfort of the transceiver. We might have thought that the climbing courses would have been more negatively affected but with a variance of only 2% from the norm this does not seem significant.

There is a variance in TSP ownership of students prior to attending a course. For example nearly 70% of people attending avalanche courses own TSP as contrasted with only 10% of those attending mountaineering courses. It is interesting to speculate the reasons for some of this variance. Skiing as a sport has a culture of using TSP so we should not be surprised by the high level of ownership. Ownership was intriguingly high amongst respondents who had attended WML & MIC course. Overall it would appear that ownership of TSP was also related to experience within the winter mountain sports. Perhaps TSP is being used in other sports or abroad or perhaps at home?

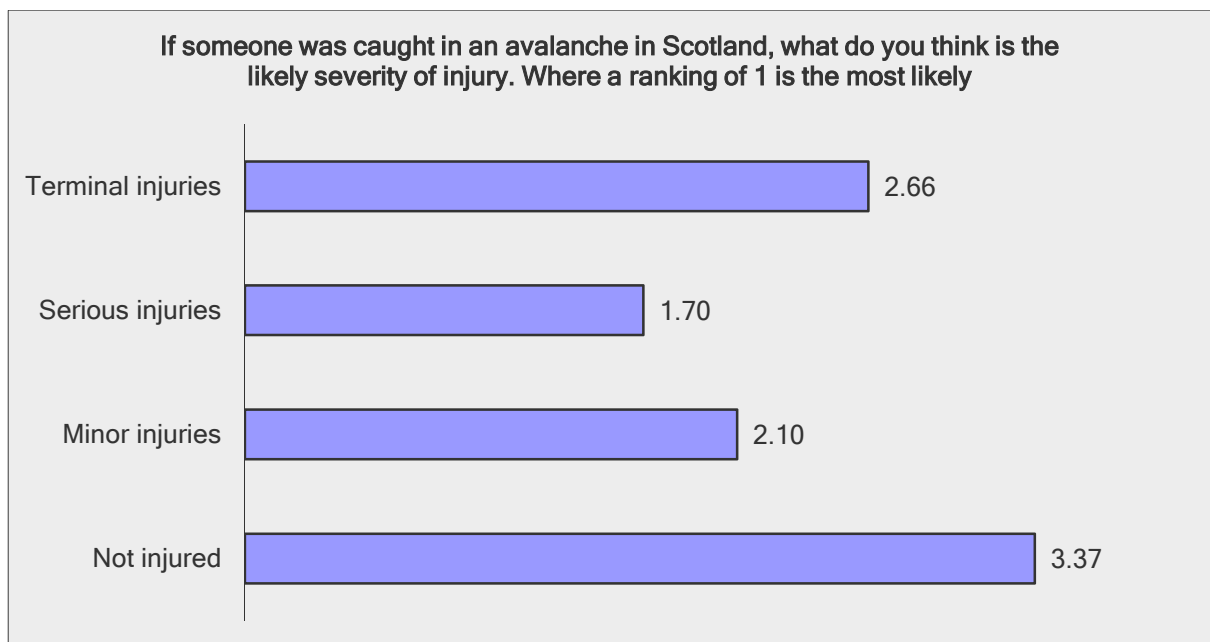
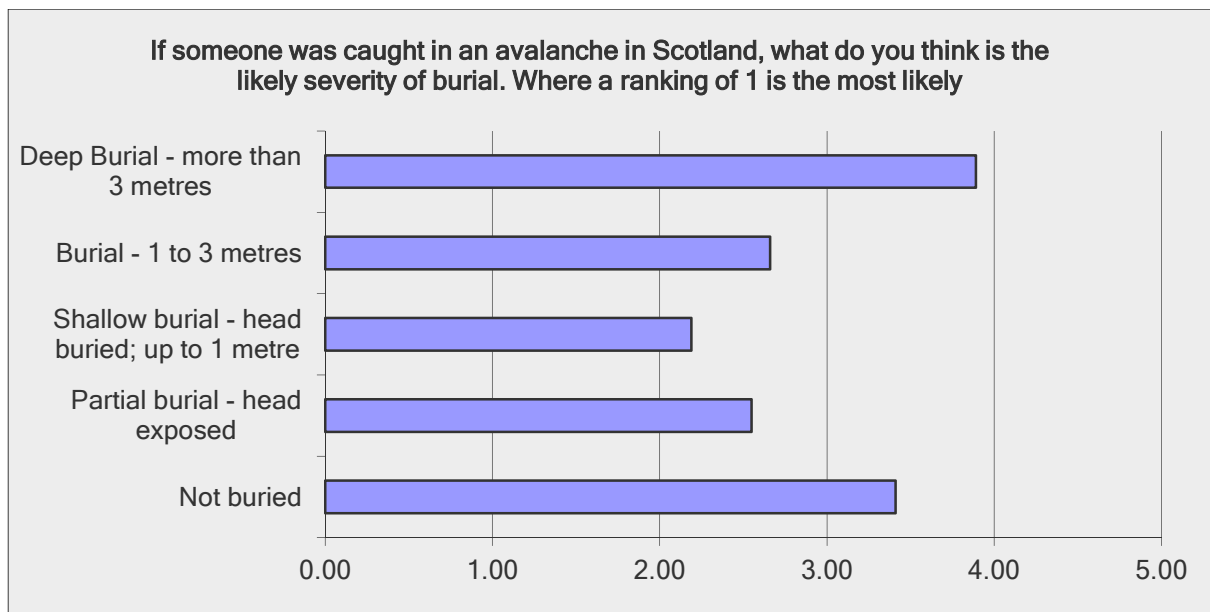
The majority of respondents said that they would consider using TSP in the future and particularly in Scotland and the European Alps with the more experienced groups considering worldwide venues. Whilst this is perhaps not a surprise it does help us know our audience and tailor the education we provide.

Decision Making & TSP Use

Matt Groves' perceptual study showed that risk homeostasis is a concern particularly in more novice groups. The concern whilst significant was (he suggested) best dealt with as a heuristic trap and mitigated against in a similar way. The generalised statistics show that nearly 70% of respondents DID NOT feel their judgement would be influenced by carrying TSP but that 13% thought they WOULD. So how is this affected by experience levels?

We can say that as individuals become more experienced, that they believe that their judgement is less affected adversely by carrying TSP. 100% of MIC candidates believe that their decision making would not be affected by carrying TSP. This may well be the case, but may also be another heuristic trap that experts are susceptible to. Is this another area for consideration?

Questions 19 & 20 are insightful in that they show us something of the thinking and beliefs of our students. A quick comparison shows that this is similar across all of our courses.



Information Retention

In the final section of the survey our students were asked a series of questions aimed to test their knowledge and specifically retention of knowledge around companion rescue with TSP. There were five questions and even after a minimum break of 2 weeks since their course respondents were able to answer questions correctly. Combining this test with the field testing done during courses we can say that retention of knowledge and skills is good over a period of a few weeks.

It is appropriate that the closing comments should be taken from the survey. I believe they illustrate the thinking that is behind our delivery.

“Having safety equipment should never be an excuse to make more bold decisions. Knowing that you and your group are well prepared and thinking wisely, should help reduce stress and worry, and aid good decision making.”

“Things can go wrong in the mountains and TSP helps in that situation. But I definitely don't rely on it. I hope it never gets used.”

<ENDS>