

Appendix 2: Tips for planning great courses

1. You'd be surprised how much is in the NZOF "Rules 2008", which is downloadable from the "Technical" pages of www.nzorienteering.com. This also contains the International Orienteering Federation's "Principles of Course Planning" is available as Appendix 3 (begins page 27). Read them!
2. The club library has a hard copy of an Orange A4 book entitled "Course Planning" available to borrow.
3. Another source of excellent information, although they have more colour codings than us, so beware when translating them, is at <http://www.britishorienteering.org.uk/downloads/volunteersupport.php>
4. Bruce Collins (a former Technical Director of the NZOF and multiple winner of the National Course-Setting Competition) says:

People might think they don't have the experience to plan courses but with a little thought everyone can do it. It doesn't take an elite orienteer to plan courses for elite orienteers and it leads on that relatively inexperienced people can plan satisfactory club events. Planning can be lots of fun and it is extremely beneficial to your own orienteering.

The experienced planner thinks of all sorts of ways to lead the competitor into making mistakes such as trying to tempt them into making parallel errors, contour height errors etc. If you have got thoroughly lost on a course (hasn't everyone!) think about where you got lost and why. See if you can incorporate this into the next course you plan.

The main aim of planning is to give the competitors a course that is correctly designed for their capabilities, is fun and challenging, and above all that it is fair.

Some general do's and don'ts:

- Don't have doglegs. This is where the competitor leaves the control in the same direction as they came into it, and therefore can inadvertently show an incoming person exactly where the control is.
- Don't have different courses coming into the same control from opposite directions for the same reason as above.
- Don't have controls on similar features within 100m of each other.
- Try to have the start so that people waiting to go don't see the route choice of the competitor before them.
- Try to keep climb under 5%. Climb is the vertical distance climbed divided by the horizontal distance and multiplied by 100, both of these being on the planners optimum route. Only count the up climb, not the down climb! Climb greater than this is too physical for older or less fit orienteers. You work out the vertical distance climbed by counting the number of "up" contours and multiplying this by the contour interval.
- Don't hide the control. Make sure it is visible without having to search for it. The challenge is navigating to the control site, not having to search under bushes for it when you are within a few metres!

- Don't have long legs where there is little navigation involved because of prominent features or large catching features.
- Give the course an interesting shape. Don't have all the legs the same length or the course generally going in one direction. Try and make people turn left then right etc at each control and vary the leg length
- A route choice between controls should make the competitor think hard about which they think is best. A straight choice of over the hill or around the hill is not necessarily a good route choice.

What is the purpose of the course labelling and who are the courses for?

White courses are the courses designed for beginners, i.e. those just starting out in orienteering. They should be designed so that everyone finishes and, just as importantly, we should be trying to make the courses interesting. This is important as we are trying to hook these beginners, and their families, into orienteering, NOT to turn them off for life.

Yellow courses should follow on from this. They should be MORE interesting. There must be a challenge. They should allow those with better skills some advantage over those with lesser skills. There must be an element of competition for those that want it and don't agree with the politically correct "everyone must win" idea.

Orange courses are the next step and are for those who are learning contours, and the more intricate features, but don't feel confident enough for a Red course yet.

Red courses are the ultimate test of an orienteer's ability to navigate and follow the map. These courses must be done as fast as possible if you want to win. BUT, and it's a big BUT, you don't have to run fast to do Red courses. Lots of people enjoy red courses and do them at a walk. It's the challenge of **navigation** that is the enjoyable part, not the physical exertion.

So what is the problem with courses in NZ?

Many White courses are BORING!!!!!!!!!!!!!! Usually they follow a fence or track system around in a circle. What fun! It's just a cross country run without crossing much country.

Many Yellow courses are just as boring. They usually follow the same or similar route to the White course but miss out the odd control. What is the navigational skill in this? It is still track running! Sometimes planners are adventurous and give the competitor a control 50m off the fence line but visible from 200m away. Wow!

Many orange courses are too hard and almost of red standard. It's an enormous jump from an easy Yellow course to a hard Orange course. This is where we see a big drop off in competitors. Is this related?

Red courses are Red courses. Most people get these about right (except for hiding some controls under bushes, behind trees etc, which is NOT part of this sport).

Now after all that criticism I'll say what I think the courses should be like!

White Courses

The official description of White courses from the 2008 NZOF rules is:

Courses must follow drawn linear features (tracks, fences, streams, distinct vegetation boundaries, etc.). A control site must be placed at every decision point (eg. a turning point, a track junction or a change in the type of linear feature - from following a track to following a stream). All control markers must be visible from the approach side. Where the course has to deviate from the handrail feature (e.g. to cross through a forest block), the route must be marked all the way until a new handrail feature is reached. The Start Triangle shall be on a linear feature. If no such feature is available, then there must be a taped route all the way from the start to a linear feature (ie. the first control). Compass use is limited to map orientation only. No route choice is offered. Doglegs are permitted.

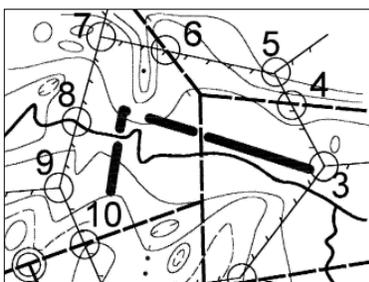
Used for: M/W-12, M/W-14B

Firstly these courses must be "safe". By that I mean all competitors must finish. The course can't be too easy. The definition of a white course is that there is NO route choice. Controls MUST be at every decision point. That is every track junction, fence junction etc even if the competitor is going straight ahead. **The challenge at this level is in learning to keep the map orientated.** The controls should be placed just past the feature to make sure the competitor is going in the right direction. In other words at a fence junction the control must be on the part of the fence that the competitor will continue on. Not the part that they approach on, and not the part of the fence that they won't be travelling on. Also and very importantly the control must be visible as they approach.

While the course must follow a linear feature the words "streams, vegetation boundaries" have been added to the official description to encourage people to think beyond tracks and fences.

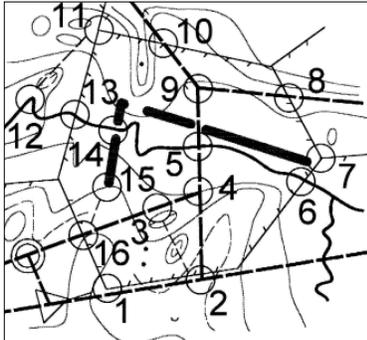
When you are planning the course try not to think just of the easiest course but think of fun for the competitor. Use as many different linear features as you can and try not to make the course circular. Turning left after each control can get boring, and doesn't help them learn to keep their map orientated!

It might be more work for you as planner, especially if you only have a few on the course, but consider taping some routes. A taped route can get you from one linear feature to the next. It can take the competitor through some knolls, past a re-entrant, over a small hill, round a bank etc. to show them what the terrain is like. Fact: White Course competitors spend a lot of time looking around. Some become so interested in birds, animals and things they see that they stop! Some become so distracted they turn right around and when they restart again they are not sure what direction they should be going in. True! Giving them a taped route adds to the scenery they will see and their enjoyment. As long as there is a control at each end of the taping it is safe.



For White courses the key words are SAFE; NO ROUTE CHOICE; and INTERESTING.

This is a BORING WHITE COURSE because the thick line is a hedge



THIS IS A BETTER WHITE COURSE

2-3, 11-12, and 15-16 are taped routes.
5-6 and 12-14 follow a stream. 14-15 follows a hedge. (7-11 is a bit boring, so maybe from 7 bring them back along the hedge to the track just south of 9)

Yellow courses

The official description of yellow courses from the 2008 NZOF rules was:

Control sites must be on or near (<50 m) drawn linear features (tracks, fences, streams, distinct vegetation boundaries, etc) but preferably not at turning points. This gives the opportunity to follow handrails or to cut across country (i.e. limited route choice). Control sites shall be visible from the approach side by any reasonable route. Compass use is limited to rough directional navigation. Contour recognition is not required for navigation but simple contour features may be used for control sites. Doglegs are permitted. Used for: M/W14-A, M/W-16B, adult C classes

As I have said above these courses are generally made too easy. There must be some route choice that enables the better competitor to make a decision about whether they can go cross country or whether they should follow the linear feature.

Courses are often clones of the White course with every second control left out. Worse is when they use the same controls. These courses give absolutely no route choice and must be very boring for the competitor. Also if someone doing a White course wants to do a Yellow course later that same day its no fun if the controls are the same

Some courses have controls on knolls etc but still on the fence line. While competitors learn what a knoll is, there is still no interest and no route choice.

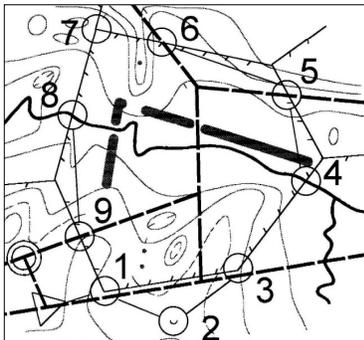
The other extreme is where some controls are too hard. The planner has read that controls can be up to 50m from the linear feature so they put a control on a dot knoll 50m from a straight fence line that is 300m long. There is no attack point whatsoever and this poor competitor has to judge the distance along the fence line before they go in 50m to the knoll!! This is especially bad in forested areas. Compass use is for rough direction, NOT fine navigation.

If using a control site up to 50m from the linear feature make sure the control site is on a large distinguishable feature such as a cliff, large boulder, large knoll etc, and not a small dot knoll or shallow re-entrant. Also make sure there is a strong attack point so they can find their way to the control and make sure the flag is very visible from all the approach directions.

Once again try to make the course interesting. Use different features and make the course an interesting shape. At this level it is even more important not to be bored by turning left at each control. Make sure you give them route choice. If they are following a fence line give them the opportunity to cut across so that they don't have to follow the fence all the way to the control. Make sure that when you give them route choice cross-country, the features are large and easily read. Don't expect them to navigate cross-country though detailed contour areas. They are not expected to read contours but they can use their compass for rough directional navigation. Therefore they can "aim off" to another linear feature. If they do have this opportunity for compass use make sure there is a large re-entrant they can follow, or round the side of an obvious hill to guide them. Don't make the possible compass use go through undulating terrain where they can go wrong. Make it foolproof. Also remember though that like red courses, route choice should not be just the choice between around a hill and over the hill.

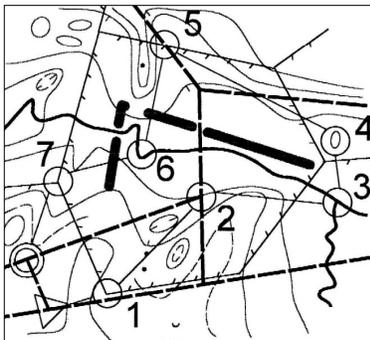
From interesting courses with route choice comes the ability for better orienteers to beat faster runners with no orienteering ability. That's what orienteering is all about!!

For Yellow courses key words are INTERESTING; ROUTE CHOICE; COMPETITIVE.



POOR YELLOW COURSE?

Control 2 is 50 m from track with no attack point. 4-5, 5-6 and 8-9 cut corners but not enough to give any incentive to leave the fence line.



BETTER YELLOW COURSE?

Most controls give a route choice with an incentive to go off the track/fence system.