

Target Shooting

Instructing The Beginner

By

Ross Mason

Introduction

This first stab at instruction is for prone shooting only. It's initial aim was at teenagers mainly but is applicable to all beginners.

I have been attempting to coach shooters for close on four decades. From new shooters who have never fired a rifle in their life, club shooters, secondary schools pupils and athletes who have achieved at World Championships and Paralympic Gold medals.

It has taken me all that time to glean what I would consider the essential basic skills that should be introduced from day one and reinforced all the way to the Gold and beyond. My experience is that if these skills are introduced from the start then it can eliminate an awful lot of un-learning in the future.

This introduction is aimed at the club member who is given the task of introducing the new shooters to our sport. It is an endeavour to ensure these basic skills are introduced at the beginning with the right purpose. These three basic skills are, in fact, relevant to all types of rifle shooting. With minor adaptation they are relevant to the other disciplines of Air Rifle and 3P.

I call this the initial phase a period of instruction. For this period you are an Instructor, rather than a Coach.

This introduction to shooting is a progression. I begin by eliminating all tasks that interfere with the three basics of shooting. Breathing, aiming and firing the shot. The new shooter begins "off the block", learning the basic skills and only when these are mastered are they moved onto the sling.

I am convinced that introducing the pain of the sling later is a more successful strategy for both coach and shooter.

It is a good idea for the Instructor to practice carrying out these skills and to shoot off a block just to reacquaint themselves with it. I might add that it is good training even for an experienced shooter!

All the instruction is for a right handed shooter. Sorry Lefties. But to assist you I have made mirror images of the photos in Appendix 1.

The "off the block" part of the instructions is a useful guide for Business House League participants and social groups. It quickly gets to the gist of shooting with the minimum of input from club members and ensures reasonable scores to the participants.

Acknowledgements

Thanks to Bridget Mason for posing as the new shooter. Incredibly, my three daughters never took up shooting but two struck up affairs with my other love, Hockey.

I have a very understanding and very forgiving wife, Kris, to whom I will be forever grateful for supporting my shooting through the years.

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The Welcome

Introduce yourself as the person who is going to show the new shooter your favourite sport. Tell them who you are, where you fit in the club hierarchy, show them around the club, and introduce fellow members. Show them the rifles, jackets, gloves, the shooting area and how the targets are marked. Let them watch a detail shoot through a scope with you telling them what is going on. Don't forget the cuppa at supper, the whereabouts of the loo and as they leave with their signed target..... what time they should turn up next week!

Safety & Introduction to the Rifle

To the nitty gritty. Explain Firearms Safety and show them the Arms Code Seven Basic Rules in Appendix 2 on page 19. Explain what they mean in words of one syllable! Tell them who is in charge on the range. What the Range Officer does, the club's range rules etc. Find an appropriate rifle for them to use for the evening and show them around it. Which end of the rifle to avoid and all the names of the bits of the rifle. Including the multiple names (Comb - Cheek Piece; Back Sight - Peep Sight; Hand Grip – Pistol Grip).

Grab the sight picture demo toy and show how the concentric circles line up. Explain the targets. 13 shots, 3 sighters, 1 shot on each counting target.

Emphasise the three sighting shots in the middle. Demonstrate how the bullet holder looks like the target so they can use it like a map and not get lost around the target.



On The Block or Rifle Support

The following usually happens in the club rooms. Get the rifle and double check it is empty because the shooter is going to dry fire the rifle in the clubrooms. Get a rifle support block and a rubber mat for the elbows. I always begin on the rifle support until they can shoot at least in the 90s (92-95) and, at least 3 times in a row.

At this stage I have found it a lot easier to get on the ground and demonstrate the following myself. Have them sit in front and to your right so you can keep eye contact.

I lie down at quite a big angle – about 20 deg to the target. I support myself with the elbows out as if you were leaning on your hands. Put the arms on the ground under your chest.

Set the legs as per the position adopted when the sling is fitted. Put a glove on the left hand under the right shoulder and make a fist. Then put the rifle on the front support.

Support the rifle butt with the left hand on the fist with the butt resting on the thumb end. Drop the butt plate down as far as it will go so that the end of it can be held inside the fist for a bit more support.



Note that the rifle will be quite low with the butt resting on the left fist, therefore the rifle support needs to be low as well. The trigger arm and hand is swung forward so that it rests on the hand grip.

Keep the rifle support as far forward as possible and supported on the fore end rather than the barrel. This gives a bit of weight at the back for the fist to hold and the rifle doesn't end up dangling in mid air if the support is too far back. The rifle support in the pictures is triangular with three levels. Each arm is at a different height above the ground. It is nice and stable. See Appendix 3 for a drawing and dimensions.

With the big angle of the body (about 20 deg or more to the target line), the cheek fits the cheek piece and the head comes close to the correct position nice and close to the back sight. I suggest to them to hold the hand grip with the force it takes to hold up a can of coke. The butt just touches the shoulder without any pushing into it. Sometimes it doesn't even reach. It does not matter.

So often I see learners lined up directly behind the rifle with the sights miles away from the eye. Having the body at a 20 deg (or so) angle allows the head and shoulders to get closer to the position that will be adopted when the sling is introduced. You might like to try lying down with the left hand under the fore end of the rifle and butt on the shoulder while supported by the rifle support and trying to get your head close to the sights. It is awkward and imposes unwanted movement to the rifle that usually results in the shooter tensing up to keep the damn thing still. ***These are ALL the wrong signals.***

Now to the Most Important Skills in Shooting

I explain how to breathe. Breathe in slowly and deeply. Let the breath "fall out" of the lungs until they are comfortably empty. "This is the time to aim and fire". This is emphasised over and over while the shooter is under instruction. In fact it should be remembered for ever!

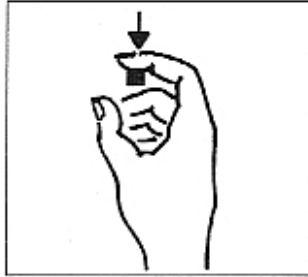
While they are in the seat watching me I suggest they think about how few breaths they take while watching TV. Get them to try it and show there can be quite a long gap between breaths and that this only occurs when they have breathed out. Note how deep they breathe while watching TV. This is how they will breathe while shooting. Long and slow rather than short and sharp.

I show how the rifle can be shifted up and down by taking more or less of the butt plate in the fist. Emphasising they must keep the fist resting on the ground at all times. I sometimes put a support like an extra mat under the left hand to ensure this happens. Keep both elbows on the rubber mat to prevent slippage. Show them how to wriggle left and right to steer the rifle onto the targets. Moving the body rather than sliding the rifle on the support.

I then show them how to load the rifle with little movement of the body. Just a lift of the head to see where the breach is. I show them how to close the bolt with fingers clenched so that the loose finger does not hit the trigger accidentally.

I breathe, I relax, I aim the rifle. I point out where the cheek is, how close the eye needs to be to the back sight. I start off about 20 to 30mm away to make sure they see the peep hole plus a good bit of the foresight and the area around it

I breathe, relax and gently pull back the trigger (I suggest they imagine trying to touch their nose with the trigger finger as they pull it) with the minimum of movement and no lift off the trigger. In other words, showing how to follow through with no finger bounce. Get them to see how little movement there is when the trigger is pulled deliberately and gently. It should be imperceptible to you and them.



Now it is their turn

They then lie down and try it. Body at about 20 deg. Elbows out. Place the rifle on the rest for them. Let it rest on the left hand. Ensure the cheek is resting on the cheek piece and the head not being lifted up. Make sure they have found the back sight, the front sight and understand how to line them up.

Breathe. Breathe and breathe again. Slow, deep and smooth. Almost certainly the rifle will move as they breathe in and out. Tell them not to worry as the rifle will come back to the same position as they breathe out. This is a good trick to put them in the right frame of mind when the sling is fitted.

Cock the rifle and let them test the trigger.

Breath, relax, momentary wait, release the trigger.

Practice loading – without a bullet!

Sights

To begin with, keep it simple. Identify the top and side adjusting screw. Tell them they move the shot closer to the middle of the target. Ensure they know which is clockwise and anticlockwise. Get them to feel the clicks. Ensure they show you they understand what “2 clicks clockwise on the side” means and that the instructor will tell them how many clicks to adjust. That is all that is needed until they are scoping themselves. After a few shoots begin explaining what you are doing when you adjust the sights based on where their shots are falling.

Time to move to the range on the Rifle Rest

Repeat all the above as they prepare to shoot. Talk to them quietly and with the sequence of the process to the fore. That way you won't get lost and they won't get too confused.

Place the rifle support as far forward as it will go on the firing point keeping it as far to the right as possible. Reinforce the angle, cheek, making a good fist that rests on the ground. Keep a close watch on the breathing. Keep a close watch that the left hand is on the floor. Keep a close watch on the trigger – sitting on the first finger pad, rest of the finger clear of the wood. The finger staying attached to the trigger until after the shot is released.

Fire the sighters, adjust for approximate centre and leave it as is for the whole card!!!! This is most important because it is a lot easier to gather consistency information if you don't move the sights! A short time period must elapse before they leap to the bolt. They will!! Nail it now.

Once they look like they are cottoning on to the breathing and the shots are falling towards the centre of the target, I then tell them the trick of slowly moving their eye across and up and down the back sight. Noting that it goes, "fuzzy fuzzy fuzzy, clear, clear, fuzzy fuzzy fuzzy" as the eye moves across the aperture. Tell them they need to find the clear spot and put it over the front sight. Note that they should only worry from now on about getting the clear spot over the front sights, not where the rear sight ring concentrically sits over the foresight. I am always impressed with the sudden improvement in the performance when they nail that trick.

Each time they go down to shoot, quietly reinforce the basics at random times while they shoot. Watch for the breathing, head behind the sights, the short pause before firing and good trigger finger attachment!

They are the three most important skills to teach:

Breathing. Sighting. Trigger release.

The purpose of resting the rifle on the left hand is not to "cheat" but to eliminate everything that impinges on learning these three basic skills.

Prepare them for the jacket, they should find one that fits and wear it while shooting off the rest for a couple of cards.

I insist they visit the Op Shop and buy a tight fitting sweater - with no hoodie – and a skivvy to go under it. These should not be baggy under the armpits. Fashion and style is nothing in shooting! But they certainly look better every time their score improves!

Moving to the sling

Once the scores are coming, it is time for the pain. It is far easier to move to the sling when they know what sight picture, trigger release and breathing skills are needed.

From the basic lying down position off the rifle support at about 20 deg, it is an easy transition to just flip the left hand over to be under the fore-end of the rifle.

Because they now understand where the cheek, and trigger hand and elbows go, it makes the next step a lot easier. Get them to hold the rifle in both hands with the left hand gripping the fore-end while pulling the butt slightly back onto the shoulder. Move the hand stop well forward so it is out of the way and not touched.

Find the right elbow, left elbow/forearm/upper arm angles that feel comfortable for them. Adjust the butt plate (length as well) to get a good full contact just inside the "shoulder ball muscle" and across the collar bone.

Make sure the eyes and cheek are comfortably behind and in line with the sights. They are allowed to cant the rifle so the eye can see through the sights easier. Move the hand stop close to the left hand. Adjust the sling a wee bit tighter than what is required with them holding it up.

Get them to release the tension in the arms and shoulders and let the rifle weight be taken up by the sling. TOTALLY.

Adjust the sling as necessary to get the rifle up to a comfortable height. This may include hand stop adjustment, slight shifting of elbows etc. Ensure there is a good open triangle formed by the sling and left arm.



On Left Hand Fist



Supported by Left Hand



With Sling fitted

These three pictures demonstrate the same basic position can be adapted from the rest to the sling.

The emphasis is to ensure they understand that all the weight is taken by the sling with absolutely no lifting or pushing down with the left forearm.

The left arm is **completely** relaxed.

The left elbow, upper arm and forearm are in a straight line if you look from above and their eye is comfortably on line with the sights.

Once sorted, while looking through the sights at the wall, get them to breathe. Ask them to tell you which way the rifle moves as they breathe in and out. Down breathing in, up breathing out.

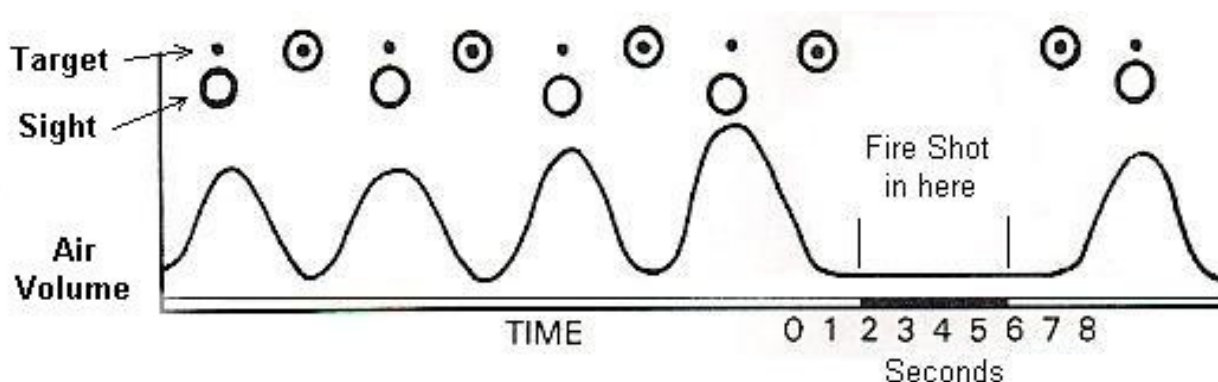
Emphasise that the rifle is adjusted onto the target by moving the hips back to raise the rifle, hips forward to lower the rifle, hips left to move it right and hips right to move it left. All direction changes of the rifle occur from behind the shoulders rather than pushing the arms.

Emphasise after each body movement the right elbow must be lifted and placed down again. Especially note that after loading, the right hand takes hold of the pistol grip and only then is the right elbow placed on the ground.

Emphasise that when settling the rifle onto the target the rifle has to move on the breathing line. It must not be muscled sideways onto the target. Explain how just moving the toes or feet or legs a little can make small movements of the rifle onto the target.

Most of all, it is emphasised that when the lungs are comfortably empty **the rifle rises no more and no less than the target height**. The subtle lifting and forcing down of the rifle is one of the first faults that develop. Nip it in the bud.

Use this diagram to demonstrate the breathing cycle. Note the slightly increasing breath as the shot gets closer.



How to lay down with the Rifle and Sling

This is not a trivial exercise for the new shooter. It is hard enough trussing someone up in a jacket but to then tie them up with the sling and tell them to lie down can be a bit difficult. My tried and tested method is as follows. Again, demonstrate this first yourself while explaining what is happening and why.

Bring the rubber mat.

Kneel on the ground. Take the sling in the left hand and clip it into the hand stop. Lift the arm over and inside the sling and place the hand under the fore end.

Ensure they can see how the sling is smoothly fitting around the wrist and remember to show them what it looks like when it is twisted.



Ensure the fore end is sitting well onto the base of the thumb and wrist rather than in the palm of the hand. By sliding the wrist under the rifle more it will be found the rifle sits more solidly and does not fall to the right.

Kneel at the approximate angle to the target that they have been using up this stage.



Stretch out the right hand as far forward as they can and lean forward and let it take the weight of the top half of the body. Place the left elbow well forward and lay down by moving the legs back.

It is a good idea for you to point on the floor where the hand and elbow need to be positioned.

Let the rifle butt rest on the floor during the whole manoeuvre.



The rifle is then rested on the left hand. The left elbow is moved so that it is in the straight line with the body, forearm, elbow and upper arm in a straight line.

The forearm is released forward until the sling is taking the weight. All this time the right hand is being used to assist in manoeuvring the body and left elbow into position.

Ensure the sling is well up the arm, pulling fractionally on the **outside** of the upper arm and is smoothly around the wrist. Pulling on the outside will stabilise the left arm/sling more than allowing it to pull on the inside of the upper arm.



Once the general alignment to the target is sorted, the right elbow is lifted slightly by rolling the body a fraction to the left and the right hand grasps the *bottom of the butt plate* – not the pistol grip – and positions the butt plate snugly into the shoulder.

Opening the shoulder this way ensures the butt plate can be placed consistently into the shoulder. It is a lot easier holding the rifle at the back rather than half way along at the pistol grip and trying to wave the butt plate into the shoulder.

The pistol grip is then taken hold of and the right elbow carefully dropped to the ground with a slight body roll to the right. Position the right elbow so that there is only a very small force towards the rifle up the forearm. Ensure the upper arm is not vertical and propping up the right shoulder. The right arm is a steadying support rather than a solid foundation.

The trigger hand should not be forced against the rifle otherwise the trigger finger will be under too much strain. It needs to hold the rifle in as neutral a position as possible neither pulling back nor pushing forward.

Keep the length of the trigger finger clear of the stock.

Practice loading again. It is surprising where the breech disappears to when the sling is fitted. A small roll to the left lifts the right elbow off and should allow full movement of the arm to reload.

Emphasise a slight roll to the left is all that is necessary. Just enough to take the weight off the elbow. If they still can't reach the breech rework the position until it does. The usual culprit is the butt being too long.



Moving to the range with the sling

Repeat the process of getting into the sling and laying down with the rifle at the target.

Emphasise the body angle when getting into position.

Emphasise the need to find the Natural Point of Aim (NPA) for the rifle. I do this as they are lifting the rifle into the shoulder. I hide the target with a spare target in front of the back sight while they get into position. Then lift the target away when they are comfortable. They check where they are aiming without moving the rifle. The directions to shift the body are explained. They make the movements, the target is then hidden again, and they take a couple of breaths and then expose it again. Repeat as necessary until they can see at least some of the black of the target in the front ring. They can then take a breath or two while making slight adjustments with the toes, feet etc until when the breath is out, the rifle is on the target.

Keep reinforcing these skills each time they are preparing and getting into position and moving around the target. This requires small body position movements and needs to be done for each shot. Keep reminding them about the fuzzy fuzzy clear and the breathing. Watch the trigger finger for lack of bounce!

I keep an eye on the breathing and target elevation as follows:

Watch the end of the barrel. It will fall and rise with each breath. By noting a spot in the background in line with the barrel end, it is easy to see if they are reaching the target as the breath is expelled. A close watch will reveal how consistently they are breathing onto the target and either, lifting the rifle onto the target, or, stopping their breath to prevent overshooting it. The preliminary breaths give this away as the spot you are looking at is not the same for the final breath. Quietly remind them to either move the hips forward or backward to ensure the target is reached without strain.

Moving from target row to target row is always a good time to reinforce the small movement. It is so easy for them to lift or hold down the rifle at this point around the target.

After a few weeks on the sling I give them a couple of cards of practicing getting up and down into the shooting position. Fire the three sighters and adjust the sights as necessary, they get out of the rifle up to the kneeling position with left hand out of the sling, get back down, fire a shot, repeat for the other nine shots. The ten shots are done with no adjustments to the sights. Inform them where the shot is but don't change the sights. Again, look for the consistency in the shot position. This gives them a solid period of repeatedly sorting out "getting down right the first time". It is ten weeks of practicing laying down to shoot in the space of two cards.

The shooter has now been instructed how to shoot. After this the emphasis changes to coaching. There is a difference. Coaching is the pursuit of performance. I hope you might like to now go and check out your local Regional Sports Trust and qualify yourself as a Coach. I can assure you, it will benefit your shooting and the many others you come in contact with. It will certainly improve your instruction.

Additional Thoughts

I hope you see there is progression in this learning technique. From the simple basics of breathing and aiming to getting into the sling. It makes the progression easier with no information overload. Imagine if the learner is put into the sling on day one and has to try and learn all the above at once. I believe a step at a time is necessary to achieve the best progress.

There is no timetable for this technique. It is totally on the learner's ability to convert the information and training into results. Be wary of discovering a hotshot who can manage a 95+ in two weeks - or even less!! Ensure they are still well schooled in the basics before moving to the sling. I have been burnt many times by having to go back to stage one so I now let them shoot for another couple of weeks just to make sure! It is demoralising for them as well as you if progress suddenly stops and drops off.

Always try and offer positive comment. Use language like "Try holding the trigger like this", rather than "Don't hold the trigger like that!!". It is a subtle difference that will have a positive effect on their shooting. A bit like the difference between "Please walk on the path" and "Keep off the grass!!". One is supportive, the other is a telling off. So stay away from the "Don't do" and promote the "Try this".

All this instruction is done without their using a scope. Introduce it once the sling is well established and scores are into the 90s. Emphasise that it is used as a guide to where they shot and the direction the shot is from the middle of the target. De-emphasise the score they see. There is no information in the score. There is gold in the direction of the shot! Show them how to focus it, how to position it and change its direction without damage to the fittings! And most importantly, ensure they learn to fit the scope to their position rather than position themselves to the scope!

I recommend that no penalty should be applied to their score in any way, shape or form if shots go on any target for the first few times. Count the best 10! A gentle explanation will see them on the right track once they have shot a couple of targets. Tell me it isn't better to have an improving score over a few weeks that are (fractionally) manipulated by you so as to keep their enthusiasm up and running! I have rarely had anyone shoot worse than a 75 first up if these ideas are followed.

Ensure the club has a few rifles with short butts that are adjustable for length. These are for those with wider shoulders and short arms. The "as supplied" standard length rifles do not fit all comers. My experience is the narrow shouldered, long armed folk can get away with the longer butt.

Make sure all the slings are the same type, the attachments are all the same and the adjustments on all the rifles are easy to make. It is demoralising to you as the Instructor and to the shooter if parts have to be robbed to get working equipment.

For ease of adjustment, keep the hand stop only finger tight. If the correct shoulder pressure is being applied through the rifle (just sufficient to keep the butt snug on the shoulder without slippage), it will not need much locking to hold it in place.

Ensure there are plenty of eye shields available that can be easily attached. Magnets are wonderful for this! Elastic head bands with a hanging eye patch can work too, especially for those with hair that hangs over the face.

What age to begin instructing?

My personal policy is not to teach anyone under 13 unless their parent is present and assists. This is for health reasons (lead) and I feel the maturity necessary for learning to shoot is yet to develop.

In my experience, girls are a lot easier to teach than boys. If you have a choice, take the boys at year 10 (14 - 15 years) , the girls at year 9 (13 - 14 years). If they are too small, convince them to come back next year. Their opportunity will come.

They grow very fast. A summer can result in a young adult who bears no relationship to the child at the end of last season. This is important and it is necessary throughout the season to rebuild as the season goes on and they grow.

Please remember, you only have a few hours of your precious time to instruct. Use it wisely and try and get a small group proficient rather than spread your time thinly with the result that no one - including you - achieves meaningful progress. I never have a group of more than six (ideal) to eight (max) in any two hour training period. There is too much down time and it ends up a waste of everyone's precious time.

As far as adults go, if you can get small groups of two or three along to club night then those are the numbers where you can invest worthwhile effort. Any more and you begin to lose the personal touch. Better to teach three and lose one than to try and teach ten and lose nine because they got bored.

Appendix 1.

Lefties Photos







Appendix 2

The Arms Code

The seven basic rules

1. Treat every firearm as loaded
2. Always point firearms in a safe direction
3. Load a firearm only when ready to fire
4. Identify your target beyond all doubt
5. Check your firing zone
6. Store firearms and ammunition safely
7. Avoid alcohol or drugs when handling firearms

Appendix 3

Rifle Rest Dimensions

Cross pieces are 50mm square

