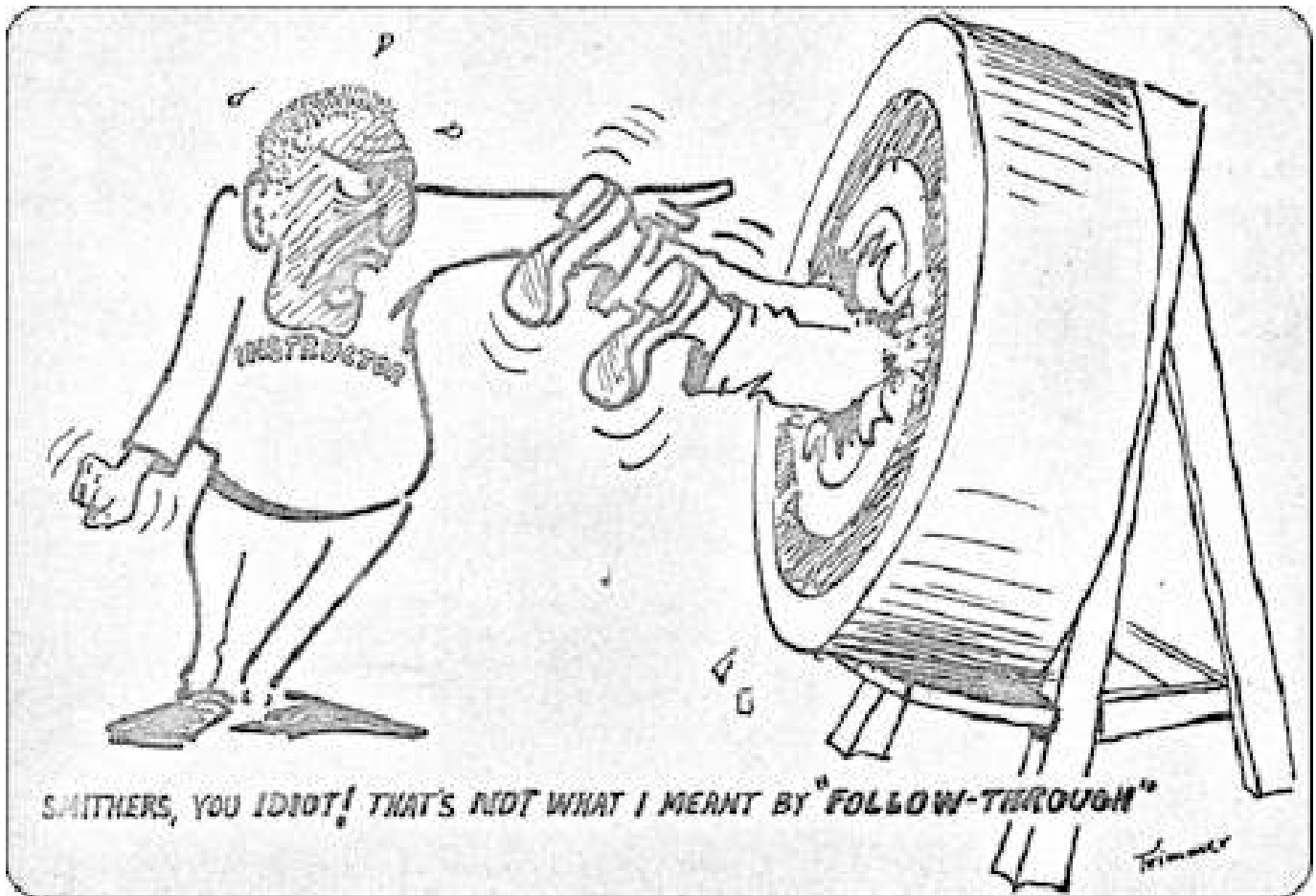


6.14. FOLLOW-TROUGH

6.14.1. Complementary Knowledge



Objective:

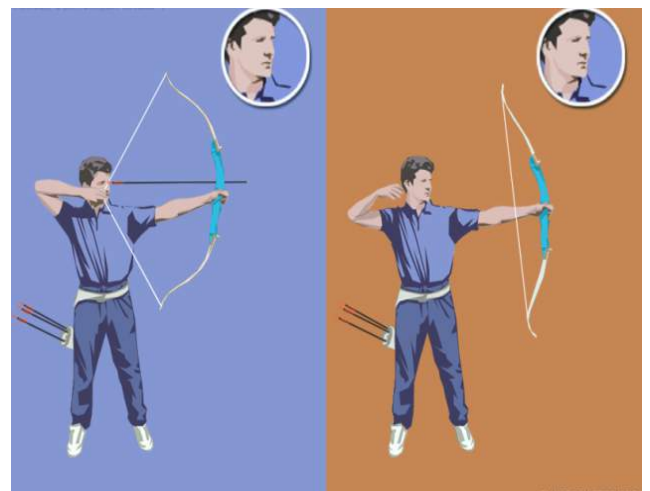
Maintain proper posture and muscular activity while the string propels the arrow away.

Form:

From the draw extension step, including aiming, until the end of the propelling process, the body, face, and gaze remain impassive before, during, and slightly after the action. The breathing motion remains unchanged.

Rationale:

The release can be considered as the physical part of the follow-through, but following through is not only physical, since the aiming process must continue while the arrow is being propelled. Aiming is not only a visual task, it involves body stability, the novice's concentration and his/her breathing as well.



The novice's concentration continues until the shot has been completed.

The arrow must be shot without interference to the visual concentration or any other activities the novice is undertaking during the execution of the shot.

6.14.2. Exercises

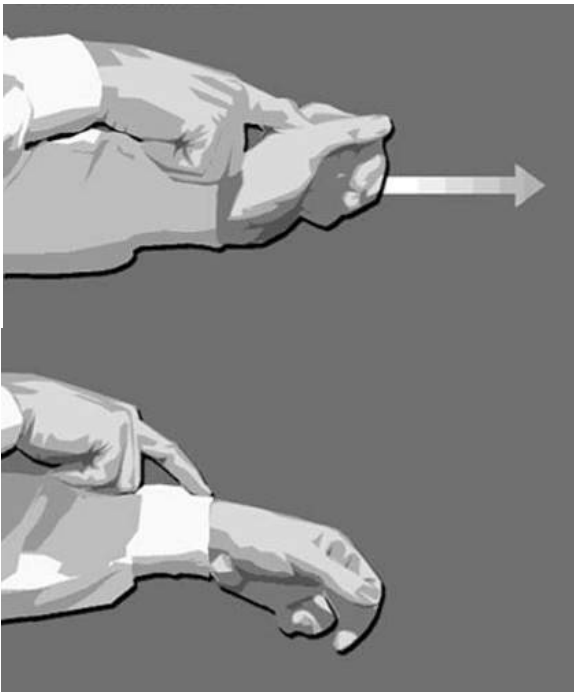
Keeping a Relaxed Bow Hand - Exercise

Objective:

Develop a passive bow hand and fingers that do not apply any force to the riser which could create torque in the bow at full draw or during the arrow propulsion period.

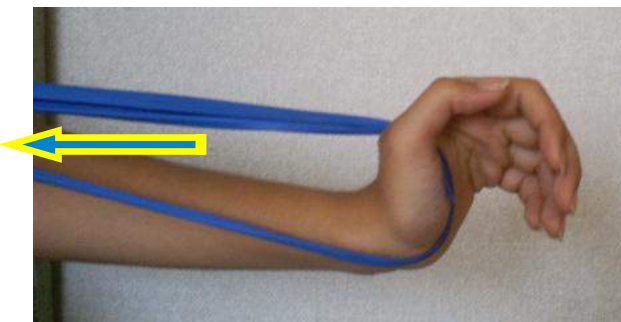
Simulations:

The bow hand wrist is relaxed on the grip. Therefore when the grip moves forward just after the release, the wrist bends down. See the illustration below: "Simulation of a relaxed bow hand at full draw and after release".



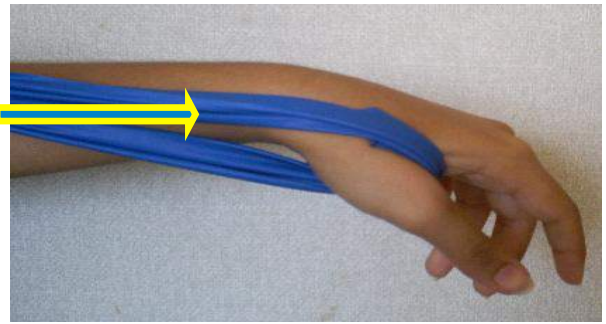
Simulation of a relaxed bow hand at full draw and after release.

The same exercise can be done with an elastic band:



Pull direction of the elastic band.

The wrist bends up when stretching the rubber band.



Relaxing the rubber band.

The wrist bends down when the tension is removed from rubber band.

The same exercise can also be done with a bow and an assistant:

With the one hand, the assistant presses the riser against the bow hand of the novice.



It is generally more convenient if the assistant works from behind the archer. The novice's bow hand should be completely relaxed and conform to the angle of the bow grip.



When the assistant suddenly pulls the riser away from the novice's bow hand, the relaxed hand bends down.

Launch of an elastic band - Exercise

An amusing exercise is to organise the novices in pairs facing each other, but a few meters away (3 to 5 meters depending on their size and the type of elastic band).

One elastic band will be shared between each pair.

Ask one of the novices to pull the band back as if it was a bow. Make sure that the bow hand is relaxed and bends backward.



Then the novice releases, sending the band flying toward their partner.



Once the elastic band propels away, the “shooting” novice’s hand is relaxed and bent down. The other novice in the pair is now free to pick up the band and repeat the exercise towards his or her partner.

Suspended Bow - Exercise

This exercise is recommended prior the introduction of the bow sling.

1. With a strong cord, hang the bow from a solid high support located at a short distance from the target matt. The length of the rope should allow the novice to aim toward the centre of the target matt with only a little slack. Without using a bow sling, the novice shoots while watching the bow hand.



Shooting without a bow sling with a suspended bow.



2. Same as # 1, but shooting at a target face at a regular distance.
3. Using a sling, shoot with eyes closed at 5 m while staying focussed on the bow hand.
4. Same as #3, but with eyes looking up and unfocussed.
5. Same as #1, but shooting with eyes open at a blank butt at 18 meters.
6. Same as #5, but shoot at decreasingly cut-out faces.

Note 1: A slight tension in thumb **and** forefinger toward the target is acceptable, but not desirable.

Note 2: If the wrist is stiff after the release, relax it completely before lowering (with sling) or catching (with the bow free, but suspended) the bow.

The Use of a Bow Sling - Exercise

Equipment:

Shooting equipment, including a bow sling. Avoid using a sling that may slip off the bow hand, fingers, or bow. If the bow sling fails the bow could fall to the ground and it may get damaged. This exercise is performed without using a clicker if one has been introduced already.

Situation:

Standing three to four meters from the butt and working in pairs, the novice holds the bow. The assistant stands behind the novice, bracing against the novice's bow shoulder with one hand and the other hand holding the string. Raise the bow arm to shoulder level. The assistant draws the string just a little (around 10cm), orients the arrow toward the butt, and then releases the bowstring.



The assistant draws the string, and the novice looks at the relaxed bow hand fingers, and wrist.

Important: The assistant pushes against the string shoulder of the novice in order to generate the proper body balance of the novice.



Note to the assistant: Draw a little lower than normal, toward the novice's chest, to avoid hitting the novice in the face upon release.

The novice's task:

Observe the bow-hand and make it as relaxed as possible. When the assistant releases, the bow wrist should bend down smoothly and remain relaxed, the fingers should stay slightly curved and very relaxed.



A "good" bow hand position at pre-draw.



A relaxed bow hand after the shot.

2. When the novice has mastered the art of keeping the bow wrist and fingers relaxed, they can perform the exercise on their own.



Bow hand relaxation at reduced draw.

3. As above but increasing the draw progressively on each shot until the full draw position has been reached.

4. Do the same, but with using the clicker, if appropriate.

The final stage of this exercise involves following the standard teaching process. Instruct the novice to repeat the exercise with eyes closed, looking up, looking at a blank butt, and then by shooting at increasingly complete targets.

Catch the Bow - Exercise:

1. Without using a bow sling, shoot from a short distance (5 m) while watching the bow-hand and having an assistant catch the bow.



Shooting without a bow sling with an assistant catching the bow.

Note 1: Depending the type of over-draw or extended arrow-rest some Compound novices may not be able to participate in this exercise.

2. Same as # 1, but shooting at a target face at a regular distance.
3. Using a sling, shoot with eyes closed at 5 m while staying focussed on the bow hand.
4. Same as #3, but with eyes looking up and unfocussed.
5. Same as #1, but shooting with eyes open at a blank butt at the usual shooting distance.
6. Same as #5, but shooting at increasingly complete target faces.

Note 2: A slight tension in thumb and forefinger toward the target is acceptable, but not desirable.

Note 3: If the wrist is stiff after the release, relax it completely before lowering the bow arm or before the assistant returns the caught bow.

Maintaining Relaxed Bow Hand Fingers – Exercise 1:

Situation:

Working in pairs, the novice holds the bow and the assistant stands beside the novice, close to the bow hand fingers.

Equipment:

Bow, no arrow is necessary.

Instructions:

The assistant tries to make the novice's fingers move to make the novice aware of their relaxation level. The novice keeps the bow arm in a relaxed horizontal position and looks at the fingers, or closes their eyes, and tries to relax the fingers.



The assistant checks the relaxation of the bow hand fingers by touching them.

If the novice has difficulty in relaxing their fingers, first get them make a firm fist around the bow grip as if they are strangling it, and then let them open the fist and thus relax. By doing this they feel what relaxation actually means and can relax better and better. This is the basis of an exercise known as "Progressive Muscle Relaxation," which is explained further in the level 2 manual.

Maintaining a Relaxed Bow Hand Fingers – Exercise 2:

1. As an exercise to train the bow hand fingers to relax, have the novice hold a 2" nail between the bow thumb and bow forefinger, as illustrated below. The length of the nail may vary slightly, depending on the width of the bow grip and the archer's natural finger position. Roofing nails are usually ideal for this exercise.



Bow hand fingers holding a nail.

Watch the bow hand and fingers during the release. The nail should be pushed away by the riser and the novice should not have any residual feeling of the nail in any of the fingers.

2. For those who have some difficulty in implementing this exercise properly, add the following step. Watch the bow fingers in a mirror placed 50 cm ahead of the bow and a bit to the right (for right hand novices), showing the front of the riser and the fingers. Put the nail between the fingers every second arrow.

3. Shoot with eyes closed while concentrating on the bow hand.

4. Same as #3, but with eyes looking up and unfocused.

5. Same as #3, but shooting and looking at a blank butt.

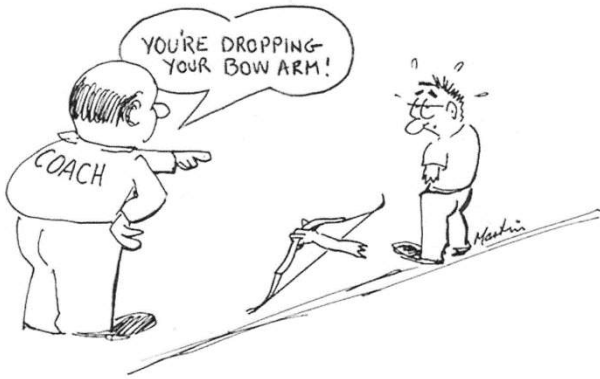
6. Same as #3, but shooting at decreasingly cut-out faces (5 cut-out spots and a regular face).

7. Finish by shooting all arrows without using the nail.

Note 1: A very slight tension in thumb and forefinger toward the target is acceptable, but not desirable.

Note 2: If the bow hand wrist is stiff after the release, relax it completely before lowering the bow arm.

Follow-Through of the Bow Arm - Exercise



Situation:

Working in pairs, the novice holds the bow; the assistant stands behind the novice's string shoulder.

The assistant braces one hand against the novice's string shoulder and draws the string slightly with their other hand, as illustrated below.

The distance from the target is four to five meters.



The novice's bow arm has a natural reaction when executing this exercise.

Important: The assistant braces one hand on the string shoulder of the novice in order to generate the proper body balance of the novice.

Note to the assistant: Draw a little lower than normal, toward the novice's chest, to avoid hitting the novice in the face upon release.

Equipment:

The basic equipment set up, using a bow-sling, but not using the clicker, and a blank butt.

Instructions:

The assistant pulls the string to roughly 1/2 draw, pushing on the novice's string shoulder to maintain balance. The assistant aims the arrow, which is at the novice's shoulder height, visually towards the butt. The novice remains in an upright position; with the bow shoulder lowered, and looking at the bow arm, not the butt. As the assistant releases, the novice's bow arm moves towards the side of the bow window and their body moves slightly towards the target. The novice continues this action alone while watching the bow arm at partial draw, then gradually increasing the draw length until full draw is reached. The novice continuously watches the bow arm during release, as shown below. To counteract the sideways movement of the bow arm the novice has to deliberately "push" the bow towards the target. This is an isometric push, without extension of the bow arm or elbow.



Self-Observation of the bow arm at increasingly longer draw lengths.

Finish this exercise by following the standard teaching process.

1. Shoot with eyes closed, while concentrating on the release, feel that the body and release remain in the shooting plane.

2. Do the same as 1, but with eyes looking up and unfocussed.
3. Do the same as 2, but looking and shooting at a blank butt from a normal shooting distance.
4. From a normal shooting distance, shoot at a set of decreasingly cut-out faces (five cut-out target faces and one complete face).

Observation Follow-Through – Exercise:

Whilst watching another target.

Objective:

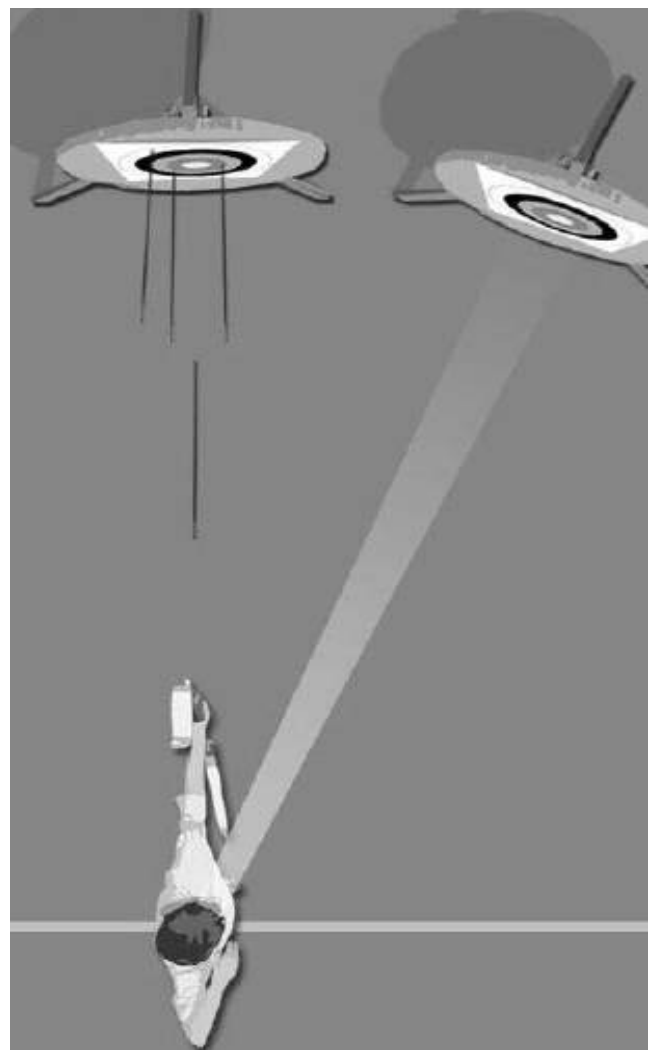
Looking at another target while releasing.

Equipment:

The basic equipment set up with two targets at least two meters apart.

Instructions:

At full draw, the novice aims briefly at the target directly in front of their shooting position. Then the novice shifts their visual focus to the second target and shoots. Visual activity should remain exactly the same during the shot. See the illustration "Shooting at one target whilst looking at another" below.



Shooting at one target whilst looking at another.

Repeat this exercise, but this time looking at the target that the arrow will hit.

Self-observation Follow-Through – Exercise:

Using a mirror.

Objective:

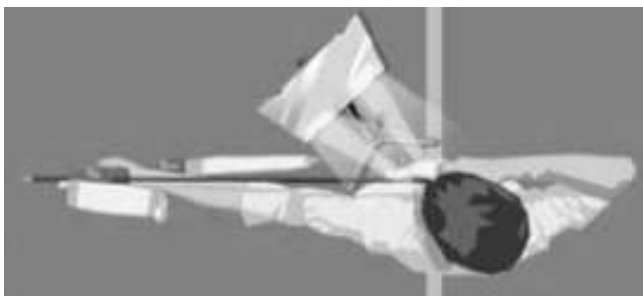
Learn to continue aiming during the release.

Situation:

Shooting at a short distance of five meters.

Equipment:

The basic equipment set up and mirror.



Control of visual impassiveness and follow through using a mirror.

Instructions:

At full draw have the novices look themselves in the eyes with the help of a mirror and then release while ensuring that the eyes, face, and torso remain passive during the shot.

Breathing Follow-Through – Exercise:

This exercise uses a particular breathing pattern while aiming in order to emit a sound from the throat. Please refer to the next section for more information on breathing.

Objective:

Keep the same mental activity from the point of reaching full draw until after the release.

Situation:

Simulations.

Instructions:

- With the string fingers, hold the bow hand middle finger that is pointed downwards;
- Each simulate the position at full draw - make a loud and continuous hum, like "Hhhhhuuuuuummm..." Simulate a release while maintaining the exact volume and intensity of the hum until two seconds after the release. Avoid any: "Hhhhhuu...uuuummm..." (Interruption upon release) Or "HhhhhuuUUuummm..." (Higher intensity upon release).

Goal:

The continuity and intensity of the sound should be exactly the same.



The same sound should be maintained during and after the release.

- Same as above, but with an elastic band;
- Same as above while shooting the bow;
- Same as above, but with eyes closed;
- Same as above, except the novice watches his or herself in a mirror;
- Same as above, but shooting at a blank butt at a regular distance, 18 to 25 meters;
- Same as above but shooting at (5) decreasingly cut-out faces;
- Same as above while shooting at a regular face from the regular distance;
- Same as above with no sound every second arrow;
- Same as above without any sound.

6.15. BREATHING

6.15.1. Complementary knowledge

When shooting, awareness and control of breathing is important as it influences the shooting process.

Most novices inhale while starting a motion, or just before it; for example:

- Moving to the shooting line;
- Taking an arrow from the quiver;
- Gripping the string/bow;
- Raising the bow.

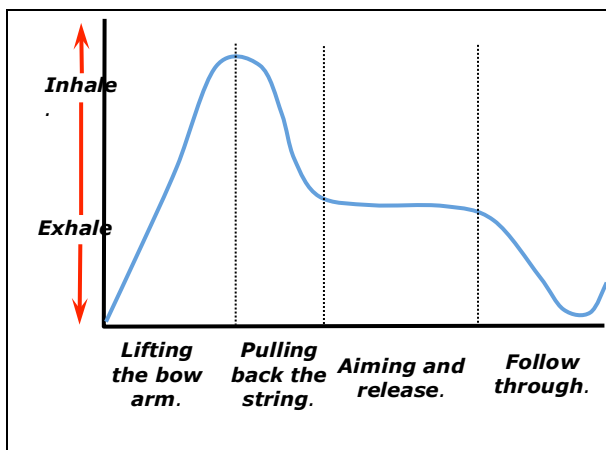
Accurate tasks are characterized by holding of the breath for a little while, and then followed immediately by an exhale. For example, most novices:

- Hold, then exhale while placing feet on shooting line;
- Hold, then exhale while loading arrow on the bow string;
- Hold, then exhale while placing the string-fingers and bow-hand;

Usually, while pulling the string back - a movement with effort - a partial exhale happens.

A common breathing pattern includes:

- Breathe in while raising the bow;
- Breathe out slightly while drawing;
- Hold the breath while aiming and releasing;
- Complete the exhale after the release.



Breathing pattern while shooting.

Continuity in breathing during the release:

The importance of the consistency and standardization of breathing throughout the shooting routine cannot be overemphasized. All archers and, in particular novices, should change their focus and muscular activity as little as possible while releasing the string. Ideally the only change is that the tension in the string finger flexors decreases suddenly as they relax and allow the release to happen. Maintaining a consistent breathing attitude from aiming through the end of the follow-through helps in the novice's overall consistency, especially while the arrow is being "guided" by the string out of the bow.

Most novices hold their breath while aiming and until approximately one second after release. If, however, the novice sometimes exhales just before or during the release, that indicates some change in the novice; usually a change in mental activity. Such changes should be minimised or avoided altogether.

Controlling breathing:

The coach should assist the novice in developing a breathing sequence that they can consistently implement, according to the above information.

Do not be surprised if, during the first sessions on breathing sequences, the novices face the following difficulties:

- Observing their current breathing pattern without modifying it;
- Focusing on breathing while simultaneously maintaining the other steps of the shooting process.

Often the novice says: "My shots are better when I leave my breathing alone." If this happens, do not be alarmed, if it were easy it would not be a skill that needed to be taught. Discipline, repeated observation, awareness, concentration, and feeling of the breathing movements ensure the skill is integrated correctly in the shooting process.

6.15.2. Exercises

No exercises are suggested for teaching the breathing sequence.

In conclusion:

This chapter has presented a large number of exercises, but by no means is this list intended to be considered complete and exhaustive. Many are similar or have multiple uses for working on different aspects of the beginner's form. While using them, it is likely that further variations and uses will be discovered by an open-minded coach. The sections are designed to be used on their own, or in combinations. Even an archer who has attained great skill in an area can improve through diligent training using these drills. As a coach, the challenge is to provide effective training for the beginners while keeping the experience enjoyable. There

should always be time for games or challenges so that the archers can see how they've improved through the drills they've completed. And of course there should be time for the beginners to shoot arrows just for the love of the sport, unencumbered by the pressures of an exercise or a competition. It is often during this free time that the archer most completely integrates the learning into their particular style.