



Exploring Pre-Bowing Exercises:

The Search for a Definition and its Application

by Jacob Dakon

One of the most challenging aspects of teaching beginner-level strings is determining how to introduce students to the bow. If presented too early, students struggle to maintain correct body position, left-hand position and bow-hand shape simultaneously. If presented too late, students become impatient and we risk high attrition rates. One method of addressing this problem is to examine how we perceive the initial stages of bow training. Using the bow should not be an all-or-nothing endeavor. Rather, it should be a gradual and sequential process that prepares students for the *détaché* bow stroke. This process is known as pre-bowing exercises.¹

Despite the fundamental importance of pre-bowing exercises, there exists a dearth of information on the topic. For instance, it is not exactly clear, at this point, how to define pre-bowing exercises, since no explicit definition exists. Moreover, the author knows of only one sequence of strategies, which is presented in the American String Teachers Association Curriculum.² The purpose of the present article is two-fold:

1. to construct a definition for pre-bowing exercises by analyzing information provided in the *ASTA String Curriculum*, and
2. to apply this definition by suggesting a sequence of strategies for the string class or studio setting.

➔ Constructing a Definition

To define pre-bowing exercises, we must first consider information provided by the *ASTA String Curriculum*, since it is the most informative resource on the topic. Content Area 1C, Learning Task 1.4 of the curriculum describes the pre-requisites, activities and outcomes specific to pre-bowing exercises.

Prior Knowledge and Precursors

- Students can demonstrate a relaxed, correct bow hold using a pencil, straw and/or dowel rod.

- Students know the terms and correct directions for down- and up-bow.

Sequence of Activities

- Have all students practice finger taps (on a bow or bow-like apparatus) to a CD in common time.
- Smiley face thumb: Have students turn their right hand to the right and look for a curved thumb that looks like a smile.
- Open/close the door: With right arm parallel to the floor at face level, place left index finger in the elbow and open and close the gate door to imitate bowing motion. Chant names of classmates and move arm in rhythm.
- Form the bow hold on the bow either at the balance point or at the frog depending on teacher preference. Have all students practice down- and up-bow by vertically air bowing.
- Put the bow on a cake of rosin and practice the bowing motion while saying down and up.
- Going Tubing! Use a toilet paper tube, paper towel tube or even PVC tubing, and practice bowing through it. Hold the tube slightly above the left shoulder.³

This information reveals three distinct aspects about pre-bowing exercises:

1. They are performed with a bow or bow-like apparatus away from the instrument;
2. They begin after students can demonstrate the bow-hand shape correctly on a bow-like apparatus (e.g., pencil or straw); and
3. They begin after students can correctly identify the actions and terminology associated with the up- and down-bow motion.

The first aspect listed suggests that pre-bowing exercises train the right hand and arm in isolation from the left hand and instrument. This paradigm has been referred to as the “divide-

and-conquer” principle.⁴ In order to “conquer” inherent coordination issues associated with fundamental skill sets—such as body format, left-hand and right-hand skills—efficient teaching necessitates that string teachers “divide” each set into individual units during initial instruction. Once each skill set is developed in isolation, the instructor then can gradually and systematically combine them. Pre-bowing exercises utilize the “divide-and-conquer” principle to prepare young string players for the basic *détaché* stroke.

The second and third aspects suggest prerequisites to pre-bowing exercises. First, students must be able to demonstrate a relaxed, correct bow-hand shape on a bow-like apparatus. The heavy weight and awkward balance of the bow easily causes tension in a beginning-level string student’s bow-hand shape. To avoid this issue, initial instruction should occur on a pencil, straw or dowel before moving onto the balance point or frog of the bow.⁵ Students also must be able to identify and associate bow-direction terminology with corresponding gross kinesthetic movements of the bow prior to beginning pre-bowing exercises. This includes understanding the difference between up- and down-bow motions, the icons and verbiage associated with the motions, and demonstrating these concepts at a basic level.

Using the above evidence, we can now properly construct a definition for pre-bowing exercises (see Figure 1). On one side of the initial right-hand sequence, students develop the ability to form a correct and relaxed bow-hand shape around a bow-like apparatus, and learn to identify up- and down-bow motions. On the other side, students apply the bow hair to the strings and learn the motions associated with a *détaché* bow stroke.⁶ In between these right-hand skills lie pre-bowing exercises, which now can be defined as follows:

*Pre-bowing exercises are a logical sequence of right-hand activities that succeed bow-hand shape exercises and bow-directional understanding, and act as preparatory actions for the *détaché* bow stroke. They are frequently performed with a bow or bow-like apparatus away from the instrument, but may involve the instrument toward the later stages of pre-bowing development.*

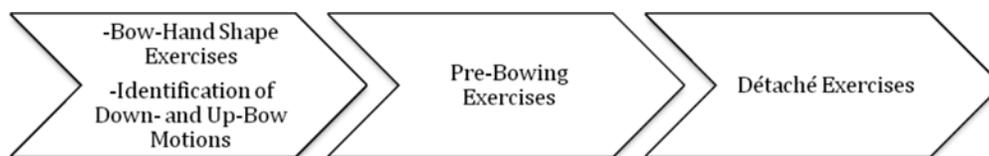


Figure 1
Initial Sequence of Teaching Right-Hand Technique

➔ Applying the Definition

I introduce students to the bow in three stages: 1) Setting the bow-hand shape 2) engaging in joint actions and 3) simulating the *détaché* stroke. As previously shown in our definition, the first stage (i.e., setting the bow-hand shape) is not a pre-bowing exercise, but it still bears mentioning. The application of pre-bowing exercises should coincide with basic left-hand exercises, but remain isolated to avoid coordination issues.

Step 1. Setting the Bow-Hand Shape

First and foremost, ensure students can maintain a correct and relaxed bow-hold shape prior to beginning pre-bowing exercises.⁷ This is a difficult skill for novice string instrumentalists to procure, so be patient. You will need to review the bow-hand shape strategies consistently throughout the first year. I cannot emphasize this prerequisite enough. No student should pass through the first level of instruction with an improper bow-hand shape. Poor execution of this most basic skill will severely hinder their success for the remainder of their career if not corrected.

Step 2. Joint Action

Next, students must learn to release their joints using “joint actions.” Tension in the shoulder can severely impact the mobility of joints located in the elbow, wrist and fingers. Rolland refers to this as “static tension.”⁸ To counteract static tension, students must engage in motion, or “action.”⁹ I suggest students engage their joints in action using the following strategies:

Shoulder Hang: To relax the muscles associated with the glenohumeral joints (shoulder joints), ask students to stand up from their chairs. Have them bend over at the waist and hang their arms down toward the floor. Allow the arms to swing in a free, relaxed manner. Ask the students to take a “mental picture” of how free and relaxed their arms feel. This is exactly how the bow arm should feel during the bowing motion.

Opening/Closing the Door:¹⁰ To relax the muscles associated with the synovial hinge joint (elbow joint), ask students to place their left-hand index finger into the cubital fossa (pit of the elbow). Using the index finger as a fulcrum, swing the forearm toward the body (flexion motion) and away from the body (extension motion). This action resembles the swinging action of a door as it opens and closes. Ask students to take a “mental picture” of how free and relaxed their arm feels. All students should engage in this exercise, even cellos and basses.

The Jellyfish: To relax the wrist and fingers, ask students to hold their right hand in front of the body in a relaxed manner. Initiate an upward pulse with the wrist, allowing the arm and hand to move freely through space. The hand and fingers should react to the pulse as if they were tentacles of a jellyfish swimming through space.¹¹ Again, ask students to take a “mental picture” of how this feels and help them make the transfer to similar motions in the bow.

Step 3. Simulating *Détaché*

The last step in implementing pre-bowing exercises is to deconstruct the *détaché* stroke into several smaller motions and to couple each motion with an instructional strategy. These strategies should be implemented in a purposeful sequence, so that each strategy builds off of the former.

*The *Détaché* Action*

For the purposes of this article, I define *détaché* as the action of pulling and pushing the bow, while pausing in between strokes to set

the succeeding stroke. All four string instruments use three motions in varying quantities to implement a basic *détaché* bow stroke:

1. The extension (opening) and flexion (closing) motions in the right synovial hinge joint (elbow joint);
2. A slight abduction (raising) and adduction (lowering) of the glenohumeral joint (shoulder joint); and
3. Pronation (inward rotation) and supination (outward rotation) of the forearm.

Violins and violas begin *détaché* by extending and flexing the synovial hinge joint while keeping the humerus (upper arm) immobile and relaxed. If the shoulder remains relaxed during this motion, the elbow will naturally rise and fall due to a slight abduction and adduction of the glenohumeral joint. To maintain a relaxed right shoulder, I advocate hanging the elbow slightly below the wrist over the course of the up-bow. Finally, there is the pronation and supination of the forearm. As the student bows downward, the forearm pronates into the bow stick to engage the index finger on the right hand. As the student bows upward, the forearm supinates back to its original position.

The cello and double bass motions (French style) are fairly similar to the violin and viola; however, their motions occur on a lower spatial plane and thus require a few alterations. Starting from the lower half of the cello bow, a downward *détaché* stroke begins with a slight abduction of the right glenohumeral joint. After pulling the bow a couple of inches, the abduction movement in the glenohumeral joint ceases and an extension of the forearm occurs from the synovial hinge joint. As the forearm extends, it also pronates into the bow as the performer reaches the tip of the bow. The opposite occurs during an upward motion of the bow. A flexion motion of the forearm occurs from the synovial hinge joint until the performer reaches the lower half of the bow. At that time, the glenohumeral joint engages, yielding an adductive motion until the performer reaches the frog. The result should be that the shoulder and elbow are relaxed upon arriving at the lower half of the bow. Once again, teachers should combine the motions together into one smooth motion.

Applicable Strategies

Each of these *détaché* movements should be developed in isolation from the others, and then gradually combined until students can simulate a smooth *détaché* stroke away from the instrument. You may need a couple supplies: 1.) a wooden yardstick 2.) wooden dowel rods 3.) unsharpened pencils and 4.) toilet paper tubes or PVC pipe. Students can provide toilet paper tubes and pencils, and the rods and pipe can be purchased at any home improvement store. Cut the dowel rods into lengths of 29-30 inches (i.e., the length of a violin bow). The PVC pipe should be cut into 6-inch sections (about the length of a toilet-paper roll). Be sure to buy the thinnest pipe available so that it is not too heavy for your youngest students and a bass bow can fit through it (the bow may need a little shove). Now, review with your students the *Swinging Out/Opening and Closing the Gate* strategy:¹²

Chicken Wings: Have students raise their forearms so that they are parallel with the floor. Ask them to “flap their chicken wings.” Monitor the slight abduction and adduction of their glenohumeral joints. Outcome: Students move their glenohumeral joints freely.

Traveling Down the Road:¹³ Have cello and bass students sit down and place a yardstick in their lap with the edge of the yardstick on left knee. Stabilize the left end of the yardstick with the left hand and hang the remainder of the stick over the right side of the right knee. Place the tips of the right-hand fingers on top of the yardstick over the right knee. Brush the fingers along the right side of the stick. Ensure students’ glenohumeral and synovial joints are engaging appropriately. Associate the verbal cues “out, open, close, in” with each motion of the stroke. Isolate each motion and allow time for each motion to be studied and memorized. Then perform the motion together in a smooth, seamless manner with the metronome. Basses use a similar sequence of motions to perform *détaché*, but the range of motion is less than that of the cello. Outcome: Students practice each motion of the *détaché* stroke in isolation of the others away from the bow and instrument.

tubing It:¹⁴ Hold the dowel over the left shoulder (violin/viola) or in front of the body (cello/bass) with your left hand. Form a bow-hand shape on PVC tube. Place the dowel through the tube. Practice the *détaché* motion by moving the tube no more than 3-4 inches across the dowel. Outcome: Students practice the *détaché* motion in a comprehensive and authentic manner. The dowel helps students visualize and feel how to bow in a straight line.

Shadow Bowing with a Tube:¹⁵ Hold the tube over the left shoulder or in front of the body with the left hand. Form a bow-hand shape at the balance point of the bow. Place the tip of the bow through the tube. Practice the *détaché* motion by moving the bow no more than 3-4 inches through the tube. Outcome: Students have the opportunity to practice the *détaché* motion with the bow. The tube allows students to transfer the actions practiced previously with the dowel, but in a freer bowing environment.

Pencil Inside of the Bow Tip: Hold the bow at the balance point or at the frog with the right hand, depending on students’ level of experience. Violinists/Violists: Hold an unsharpened pencil in your left hand. *Pretend* as though you were going to insert a pencil into your left ear. Place the bow over the left shoulder and insert the pencil between the stick and the hair. Practice the *détaché* motion. Cellist/Bassist: Hold a pencil at waist level with the left hand and point the tip toward the ceiling. Hold the bow in playing position in front of the body. Insert the pencil between the hair and the bow stick with the hair facing the body. Practice the *détaché* motions. Outcome: Students practice the *détaché* motion in a freer bowing environment with the bow.

Instrument Tubing:¹⁶ “Place the rubber band under the strings, and position the tube on top of the strings. Loop the ends of the rubber band around the ends of the tube to fasten the tube to the strings. The tube should sit between the end of the fingerboard and the bridge.” Place the instrument in playing position. Insert the bow into the tube and practice the *détaché* motion. Outcome: This strategy merges left- and right-hand technique in preparation for the *détaché* stroke without bowing across the strings.

Final Thoughts

Proper bowing technique from the onset of instruction is essential to the success of any young string musician. Such technique, however, must be introduced carefully and gradually to ensure student understanding. Rushing students to the bow, while stimulating, is maladaptive in the sense that it threatens to undo all previously learned skill sets (e.g., left-hand and body posture). Pre-bowing exercises offer teachers a fun and exciting alternative that properly equips student to implement the détaché stroke successfully.

This article contains only a few suggestions of strategies. Many more exist in the works of Phyllis Young, Paul Rolland, Simon Fischer, Don Hamann, Robert Gillespie and other string pedagogues. I would encourage string teachers to seek out these strategies in an effort to better equip students for the exciting world of string playing.

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Endnotes

- 1 Stephen J. Benham, Mary L. Wagner, Jane Linn Aten, et al., *ASTA Curriculum: Standards, Goals, and Learning Sequences for Essential Skills and Knowledge in K-12 String Programs* (USA: American String Teachers Association, 2011).
- 2 Ibid.
- 3 Ibid., 90.
- 4 Michael L. Allen, "A Pedagogical Model for Beginning String Class Instruction: Revisited," in *Teaching Music through Performance in Orchestra*, edited by David Littrell (Chicago: GIA Publications, 2003), 3-13; James Kjelland, "String-O-Phobia: Some Causes and Cures," *American String Teacher* 37, no. 2 (Spring 1987), 70-74.
- 5 For further discussion, see Simon Fischer, *Basics: 300 Exercises and Practice Routines for the Violin*. (New York: Peters Edition, 1997); Donald L. Hamann and Robert A. Gillespie, *Strategies for Teaching String Orchestra: Building a Successful String and Orchestra Program*, 3rd ed. (New York: Oxford University Press, 2013); Cornelia Watkins, *Rosindust: Teaching, Learning, and Life from a Cellist's Perspective* (Houston, TX: Rosindust Publishing, 2008).
- 6 Benham and others, *ASTA Curriculum*, 93.
- 7 For more information, see Hamann and Gillespie, *Strategies for Teaching String Orchestra*.
- 8 Paul Rolland and Marla Mutschler, *The Teaching of Action in String Playing* (Reston, VA: The American String Teachers Association, 2000), 32.
- 9 Ibid.
- 10 Benham and others, *ASTA Curriculum*, 90; Hamann and Gillespie, *Strategies for Teaching String Orchestra*, 61.
- 11 See also Phyllis Young, *Playing the String Game: Strategies for Teaching Cello and Strings* (Ann Arbor, MI: Shar Publications, 2009), 22.
- 12 Hamann and Gillespie, *Strategies for Teaching String Orchestra*, 61.
- 13 Ibid., 61-62.
- 14 Ibid., 60.
- 15 Rolland and Mutschler, *The Teaching of Action in String Playing*, 85.
- 16 Hamann and Gillespie, *Strategies for Teaching String Orchestra*, 60.



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