INSTRUCTION

TEACHING THE KAYAK ROLL...AT UNIVERSITY
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As part of their Anatomical Kinesiology class, Montana Tech students learn to roll a kayak. Here a student tries the Land Roll, first unsuccessfully, then successfully.

Photos by John Amtmann

The fact that the arms just go along for the ride, the student’s torso should form a “C” shape by straining to reach the surface of the water with their heads as they rotate at the lumbar spine to bring the paddle out to 90 degrees. The lecture then analyzes the movement many instructors call the “hip snap,” which is executed as the paddle nears the 90 degree position at the surface of the water. In kinesiology terms, the hip snap is cervical and lumbar lateral flexion combined with pelvic girdle lateral tilt to the opposite side, which rotates the boat underneath the student. However, it’s easier to just refer to this process as “the hip snap.” The most common mistake is to raise the head, preventing the spine and pelvic girdle from rotating the boat underneath the student.

We also show YouTube videos of John’s three daughters explaining how to perform the paddle roll as well as the hand roll, and we take the opportunity to discuss the technical and kinesiological differences between the two. The YouTube videos are somewhat entertaining, and the students frequently ask to replay the videos so they can visualize what they will be doing in the water. For an example video see: http://www.youtube.com/watch?v=v5izA9gZ0Mg

The second phase involves balancing on a stability ball just to introduce the concept of upper body/lower body disconnect so when they actually enter the kayak in the pool, they’ll be more prepared to allow the upper body to work independently of each other while paddling. Simply sitting on the stability ball and balancing with the knees extended and the feet off the floor will allow them to experience this disconnect.

The third phase involves moving through the steps of the roll on land; we go to a paddled exercise room to do this, but this phase could just as easily be taught outside on grass or on a carpeted surface, or on the shore of a pond, lake, or river as well. One of the YouTube videos covers this phase, so the students are aware of what they’ll be doing, however, reviewing the steps of the roll and demonstrating the land-roll is required. I emphasize the three steps, the set-up, sweep and “hip snap,” and re-emphasize the fact that it’s counterintuitive to drop the head, but doing so will facilitate an efficient rotation of the boat underneath the student. Paddle basics are also covered during this phase, including how to hold the paddle, the feathered blades and how to rotate the shaft so the power face is positioned to grab the water during the forward stroke, as well as proper positioning of the paddle for the paddle roll.

The students learn quickly during the land roll that raising the head will stall the roll, and it’s better to learn this lesson on land than in the water because we can actually talk about it as it’s occurring, and they can concentrate on correcting the movement instead of gasping for a breath of air as they would have to do in the water. When they use the correct technique for the land roll, the students usually state how easy it feels, and that it’s an opportunity to discuss the importance of developing technique and efficiency to improve performance in any sport. We usually plan a full class period, about 50 minutes, for phases two and three to be covered together.

The two roll sequences outlined below show successful land rolls. The students sweep the paddle 90 degrees out from the kayak and the spine and pelvic girdle work together for efficient rotation of the boat under the student. Following these technically correct land rolls, the student will usually smile and say something like, “well that was simple.”

The fourth phase involves applying what’s been learned up to this point in a kayak at a swimming pool. We begin by allowing students the opportunity to paddle around a bit, not only to get the feel of the upper body/lower body disconnect concept discussed earlier, but also because casual paddling is effective for allowing the student a little time to recover and mentally review the steps of the roll between roll attempts. We also demonstrate a wet exit so the students know exactly what to do if they are trapped upside-down; it’s ideal if each student can actually perform a wet-exit prior to attempting any rolls, but because we have at least two people overseeing each student in a kayak we believe it’s safe to proceed after simply providing verbal instructions on the wet-exit. Next, the “gutter snaps” are covered and practiced, which involve practicing the hip snap while holding onto the pools edge like the land roll the students have already practiced, during the gutter snap it’s important to drop the head while driving the knee to facilitate the necessary actions of the spine and pelvic girdle.

Because time is a factor, we usually just give them the paddle at this point and let them have a go at it. It is helpful, just prior to their solo attempts, to allow the student to go through the three steps to the roll (set-up, sweep, hip snap) while supporting them in the water because, though we’ve covered the steps in detail the natural tendency is still to raise the head. So, this supported roll review (pictured below) is one final opportunity to practice the correct technique.

So, how did they do? We had a ninety percent success rate. Eighteen of the twenty students who showed up for the out of class roll session successfully rolled. Each student had approximately a half-hour of actual in-kayak roll time. The two main reasons rolls failed in the pool were (3) poor paddle position and (2) raising the head. If the student moved the paddle near to 90 degrees from the boat and near the surface of the water, and if they performed the proper spine/pelvic girdle movements and ended the roll attempt with their head down, they were successful in rolling the kayak. If they had incorrect paddle position and/or their hip snap was inhibited by raising their head, then they usually failed. These causes not only affect the beginner in a controlled pool setting, they are often the cause of the veteran paddler failing in a combat setting. The next time you are in charge of teaching a roll class to a group of friends interested in learning the kayak roll, consider using some of the methods outlined in this article. A short YouTube video of this process can be viewed at http://www.youtube.com/watch?v=TSb1bK2NQ.

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In the pool roll students do “gutter snaps,” and supported rolls (photos 1 and 2) before going for it on their own. In the third and fourth photos, technique determines the success of students’ roll attempts.

Photos by John Amtmann

Mar/Apr 2014