

## Advanced Targeting

Contributed by Joe Slowinski  
 Saturday, 16 September 2006  
 Last Updated Saturday, 30 September 2006

In this tip, I share with you a method to improve your consistency on different lane conditions. It all starts with where the lane conditions. And, this article will provide you with a research-proven place to target. Do you want to improve significantly? If so, read this tip...

As a coach, I am frequently surprised at how difficult it is for some bowlers to target down the lane. In some cases, these bowlers can only target at the dots or arrows. It is more habit than ability. Many bowlers have not been taught advanced targeting techniques. Consequently, as the heads dry out, their lane play suffers and scores drop. From my perspective, bowlers who are unable to vary the length of the target will have difficulty scoring well and consistently on a variety of lane conditions. But, if you practice looking down the lane, with the following targets, you will improve your consistency significantly. You can expect some immediate improvement. But, it will take a few months to become very good at this. Advanced bowlers vary the target length in order to maximize margin of error and entry angle to the pocket. This is based on the length, volume and shape of the pattern. But, for most bowlers, if you target longer down the lane, you can increase your accuracy and improve your score. I think this Tiger Woods quote will help you conceptualize what I am advocating in this short article. Specifically, for shorter patterns we need the ball to skid and when the pattern is long we need the ball to roll earlier. It all has to do with how early the ball begin to transition. I had only one putting coach in my life, and that was my dad. His concept of putting was simple: Putt to the picture. Whenever I had trouble with my stroke, he would reinforce the early lessons, and I'd regain confidence in my mechanics immediately. That mental technique remains with me in the heat of competition, especially on breaking putts, where visualizing the break and putting to a spot at the apex of the break are critical. I get a picture in my head and stroke the ball toward what I see in the picture while keeping my head perfectly still. Alignment is crucial. A lot of amateurs set up for a putt as if it's straight, then push or pull it back toward the line. Set the face of the putter square to your intended line, then align your body to the putter. - TIGER WOODS

As Tiger's quote illustrates, the target distance changes based on the degree of break. Try to vary the length of your target down the lane. You will notice that the ball reaction changes as your eyes move further away from the arrows. Specifically, read rule # 1.

**RULE # 1:** As you lengthen your target down the lane, the ball will tend to go straighter to the target. Conversely, if you look closer, then the ball will tend to arc more.

Bowlers are often surprised by the truth of Rule # 1. If you don't believe me, try it during your next practice. Begin with your normal target length but watch the trajectory of your bowling ball path. Take a few shots and watch closely. How far does it travel? What is the trajectory shape? And, how strong is the backend reaction? Now, on the same trajectory, look 10 feet further down the lane. Throw 5 shots. What was the difference in the ball reaction? Now, look 20 feet past your original target length. Now, what is the difference? You will be surprised to see less arc as you look further down the lane. Use this method to make adjustments to play the lanes better.

**RULE # 2:** As the pattern length increases, you should bring your breakpoint closer to the head pin. **RULE # 3:** For shorter patterns, you want to look near the end of the pattern. This will get the ball straighter to the target. For longer, flatter or heavier patterns, bring your eyes closer.

**RULE # 4:** Determine your exit point of the lane condition by the simple formula, (pattern length - 35 + 4 = where the ball should exit). To illustrate, for a 39 foot pattern you want the ball to exit at board 8 (39 - 35 = 4 + 4 = 8). Or, use the chart below to determine where the ball should exit the pattern. It is the same.... As a bowler, Rule # 2 through # 4, will help you with matching-up better on the lane. Specifically, you need a guideline of how far and where to look. The following table will provide you with concrete target boards which will allow you to best play a specific lane condition. This table is derived from research at the United States Bowling Congress which found exit points that are consistent for both high speed & high rev players as well as low speed & low rev players. To use the advanced targeting system, look down the lane at the board listed in the chart, depending on the length. Determine the appropriate board and look at that board at the specific distance. As you know, the length of a bowling lane is sixty feet, from the foul line to the head pin. So, half the distance is 30 feet and three-quarter is 45 feet. This will help you with approximate distances. LANE CONDITION LENGTH WHERE BALL SHOULD EXIT PATTERN

Pattern Length	35 Feet	43 Feet	53 Feet	63 Feet	73 Feet	84 Feet	94 Feet	104 Feet	114 Feet	124 Feet	134 Feet	14 Feet
35	8	10	12	14	16	18	20	22	24	26	28	30
43	8	10	12	14	16	18	20	22	24	26	28	30
53	8	10	12	14	16	18	20	22	24	26	28	30
63	8	10	12	14	16	18	20	22	24	26	28	30
73	8	10	12	14	16	18	20	22	24	26	28	30
84	8	10	12	14	16	18	20	22	24	26	28	30
94	8	10	12	14	16	18	20	22	24	26	28	30
104	8	10	12	14	16	18	20	22	24	26	28	30
114	8	10	12	14	16	18	20	22	24	26	28	30
124	8	10	12	14	16	18	20	22	24	26	28	30
134	8	10	12	14	16	18	20	22	24	26	28	30
14	8	10	12	14	16	18	20	22	24	26	28	30

NOTE: I created this chart as an adaptation from the information in Neil Stremmel's article, Entry Angle, Part 3: USBC Research Shows Where Your Ball Should Be to Achieve the Best Angle (pp. 6 - 8), appearing in Bowling This Month in April 2006. I strongly recommend that you read this article. Stremmel shares data from USBC research on points that maximize 4, 5 and 6 degrees of entry angle. The above chart is based on giving you the most error room, left and right, but still hit the pocket with a solid entry angle. As the chart illustrates, the

ball should be outside at the end of the pattern on shorter lane conditions. In general terms, bowlers should try to play more outside on shorter lane conditions and deeper inside on longer patterns. Specifically, for every foot of lane condition, you need to have the ball exit one board more close to the head pin. As the pattern lengthens, a bowler will want to have the ball closer to the head pin as it leaves the lane condition. In addition to the target length, a bowler should be aware of how strong the backend reaction is on a lane condition. If the backend reaction is weak, then the target point should be moved closer to the headpin. This would be a reality if bowling in a center in which the proprietor or management strip infrequently. In addition, wood will have a stronger backend than synthetic since non-wood surfaces are harder with less friction.

### Lane Play Guidelines for Extended Targeting

1. Determine the length of the pattern. You might need to ask at the front desk at your local bowling center. Also consult your coach or the lane maintenance staff. Use this distance to determine the target.
2. Look-up the end-of-pattern board on the table, based on the length.
3. Begin by looking at the board at the end of the pattern. Obviously, the exact length will be difficult to gauge. But, the arrows are 1/4 of the distance. 1/2 or 30 feet is quite easy. This should allow you to get an idea of approximating 45 feet. In addition, if you are on Brunswick Pro Anvilane, the distance is 41 - 44 feet for the locator target down lane at 10 and 33 - 36 for board 15.
4. Line-up your feet based on the length of the pattern. Shorter pattern should be played more outside while longer patterns played inside. By outside, I am suggesting the exit point. As you can see from the chart, the ball needs to be on the extreme outside at the exit point for the shortest patterns. But, where you start depends on your ball speed, rev rate, axis tilt, etc. Read the other tip articles (speed, axis of rotation) to help you. But, look at the end of the pattern for the shortest and bring your eyes closer for longer patterns. Remember to be perpendicular with your hips and shoulders and parallel to the target with your feet and arm.
5. Push the ball toward the target and keep your eye on the target.
6. As the lane transitions, you will move left (RH) or right (LH) but want to keep the oil exit point the same. And, to begin lining-up, use a simple adjustment. If you miss the pocket left, then move left. If you miss the pocket right, move right. But, keep your target at the end of the pattern the same. If the backend plays weak, try moving your end-of-the-pattern board toward the headpin one board at a time.