

The Complete Guide to Bowling Strikes

The Complete Guide to Bowling Strikes by George Allen and Dick Ritger. Published by Tech-Ed Publishing Co., Deerfield, Ill., 1982, paper.

In this issue I will continue my series of overviews/reviews of the late Dr. George Allen's "Encyclopedia of Bowling Instruction" texts by examining Volume 2, *The Complete Guide to Bowling Strikes*. Last month I finished a two-part study of Volume 1, *The Complete Guide to Bowling Principles*.

The purpose of Volume 2 is to provide the reader with a comprehensive discussion of the principles of strike production and insights on how to increase the percentage of strike production. The greater skill development a bowler has means an increasing ability to read the ball surface/lane surface interface and thus make angle, equipment, and/or delivery adjustments to increase strike production, which comes from obtaining a positive ball surface/lane surface reaction.

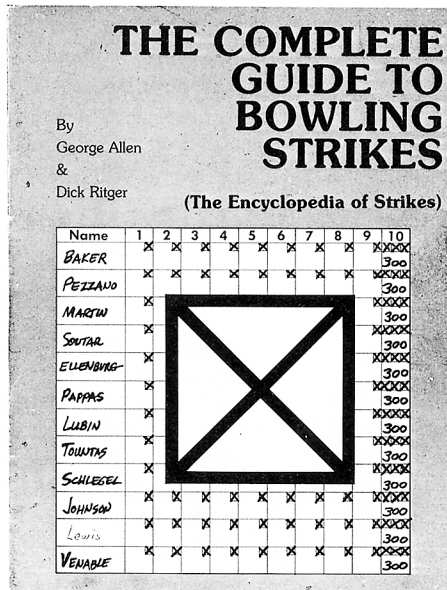
True "par" players have the ability to strike more than 50 percent of the time over a long period on a wide range of lane conditions. The skills required for this feat are lane reading ability and positive adjustment ability.

Lane-reading includes a knowledge of patterns of conditioning and the impact of each pattern on the path of the ball. Angle adjustments include the five strike lines and all related angles. Equipment adjustments cover the ball weights and balances ball surfaces, ball fit, [location of weight block as well as the type of ball, i.e., two-piece or three-piece ball]. Delivery adjustments normally relate to changes in speed, lift or loft of the ball. To strike more often, you must develop the ability to make all of these adjustments (p. xi).

To achieve the status of "par player," the bowler needs to know the principles of bowling in relation to strike production and have the desire to practice sufficiently to incorporate these principles into his/her game. He/she also needs to know the general principles as well as have knowledge of his/her game and

bowl within it.

PRINCIPLES OF STRIKE SHOOTING. This first section begins the discussion of the major principles of strike production and focuses on methods to get the ball "up" to the pocket or "back" to the pocket. Hitting the pocket with greater consistency not only means more strikes, but it also means increasing your first-ball count and making spares easier to convert, which in turn will automatically increase scores.



The Perfect Strike. The perfect strike, for right-handers, occurs when the ball enters the 1-3 pocket and takes out the 1-3-5-9 pins and, in turn, causes a chain of action-reaction which results in the 1-pin taking out the 2-pin, which takes out the 4-pin, which takes out the 7-pin. The 3-pin takes out the 6-pin, which takes out the 10-pin. Meanwhile, the 5-pin takes out the 8-pin.

A "tap" can occur when the 10-pin or 7-pin is left on a "perfect hit." Yet, most taps are the result of wrong speed, angle, line, equipment selection, faulty pin action, and/or any number of other reasons. While taps are here to stay (round objects hitting round objects),

minute changes in speed, angle, etc., can reduce the chances of being tapped.

Watching the pattern of pinfall and location at which the ball went off the end of the pin deck will give you insights into what adjustment[s] is necessary. As with all strike hits, you should watch the path of the ball on its way through the pins to learn as much as you can about the pin and ball deflection taking place (p. 5).

The Pocket Angle. The "pocket angle," is the angle the ball takes at its break point (40 to 45 feet down the lane) to the pocket. The proper angle is that angle which allows the ball to maintain a particular path of deflection through the pins. This correct pocket angle will allow both pin and ball deflection to produce the perfect strike hit. Your goal as a par bowler is to find the pocket angle which results in greatest strike production.

In this section Dr. Allen also discusses "pre-reading the lane" and types of angles. With a sufficient amount of knowledge, bowlers can learn a great deal by "pre-reading" the lane.

Par players are primarily concerned with two types of angles. The first is the foul line or "head" angle—that is, the line created by locating the placement board and where the ball crosses in relation to the target.

The second, the pocket angle, is, as just mentioned, the angle toward the pocket created at the break point—the path the ball takes once the break point is actualized (that is, when the positive axis rotates, revealing a dominant side roll mode changing into a dominant forward roll mode).

It should be obvious by now that most par or scratch players do not "spot" bowl; instead, they "line" bowl. The line created reveals the path the ball takes, starting from the release point at the foul line through the target (arrows) to the break point.

An example of a line would be 12 (lay-down point) to 8 (target) to 6 (break point) to 17-1/2 (pocket). On every strike delivery, the bowler should have determined, in advance, what these numbers should be.

Pocket angles can be changed by alternating speed, starting different approach positions, using different equipment, changing ball roll, changing releases, as well as a combination of these changes.

In summary, locating and using the ideal [or greatest utilitarian] pocket angle is a very important factor in making strikes and is even considered by some high average bowlers as the most important element in making strikes. Knowing how to make angle, equipment and delivery changes to find and use the correct [most productive] pocket angle will put you well along the way toward making more strikes (p. 9).

Proper Speed. Players roll the ball—they do not throw a ball. The bowler must decide on the amount of speed needed to keep the ball on path to the pocket and in path through the pocket. Developing a consistent and well-timed delivery will allow the bowler to maintain a consistent ball speed, as well as provide the necessary condition to allow for adjustment in ball speed.

The ability to alter ball speed requires practice, but it is an important adjustment technique that should be incorporated into every “player’s” game.

Correct Action. Action refers to lift, turn, spin, hook, “revs,” and rotation of the ball. A ball with the right type, and proper amount, of action increases productive pin and ball deflection which, in turn, maximizes strike production. Action, in other words, is the cause-effect processes imparted by the bowler that keeps the ball on line through the pins, thus creating productive pin and ball deflection.

A properly rolling ball results in good pin action. An early roll results in a weak-hitting “roll out” shot and a late roll results in not enough applied kinetic energy, which also results in a weaker shot. The goal, therefore, is to achieve a proper mixture of skid (in the heads), roll (in the pines or mid-section), and hook (in the back-ends), or, in other words, to develop a ball roll pattern of no roll (heads), side roll (pines), and forward roll (back-ends). (The exception to this descriptive-functional process is the proper use of “positive” leverage equipment on shorter oil patterns, which result in a skid-hook “roll” pattern.)

Aiming: Spot and Line Bowling. Dr. Allen offers a good introductory discussion of “spot” and “line” bowling. This information, if read in direct relation to the chapter on “pocket angles,” provides the reader with a solid introduction to “line bowling” and thus the foundation for the manipulation and/or creation of existential (and hopefully, productive) break points.

Getting Up to the Pocket. An adjustment is required to get the ball up to the pocket if the bowler misses toward the outside portion of the lane. This chapter provides a discussion of the various adjustment techniques.

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Getting Back to the Pocket. When the ball hits the pocket too fully or crosses over, an adjustment is necessary to get the ball back into the pocket. This chapter provides the adjustment techniques information.

Reading the Lanes. This chapter is extremely important. The ball (surface) and lane (surface) interface while bowl-

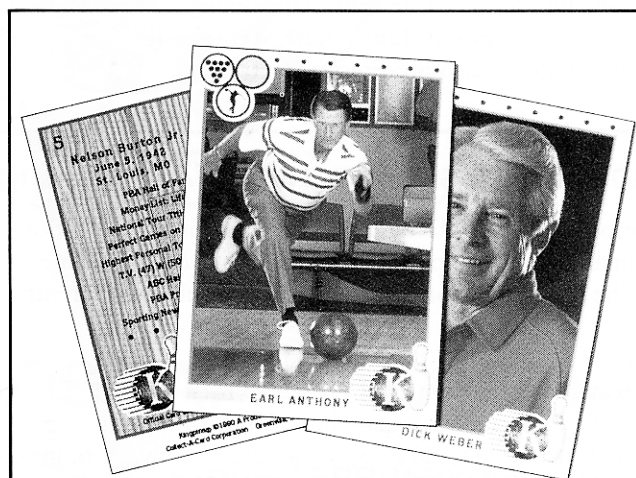
ing. The objective of the player is to get this physical interface process to work in a positive and productive way. Good lane reading is necessary to achieve a positive ball reaction, and it is both an art and a science. When a lane is read well, the player knows how the ball is going to interact with the conditions. This lane reading is a necessary condition for the adjustment requirements of maximizing strike production.

Good lane reading means the bowler knows what the ball will do as it passes through each part or section of the lane (i.e, the heads, pines, back-ends, and pin deck). Reading the lanes starts at the lay-down point and continues until the ball clears the pin deck. Any clues the bowler can perceive provides valuable information for adjustments if and when needed.

This introductory chapter serves as a solid prolegomena to Section 2’s topic: “Reading the Lanes” (see page 13).

It is essential that the bowler reads each lane properly and thus does not fight a lane. Players cannot change the condition; they can only adjust to it. Overpowering the lane is, generally,

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counterproductive. It is also essential that the bowler recognizes that a strong physical game—that is, a consistent, well-timed, and natural delivery—is a necessary condition to read lanes well. Without a strong physical game, different ball reactions are probably a result of physical deviations, which make good lane reading difficult if not impossible.

In conclusion, on lane reading,

properly reading a lane means that you know how the ball and the lane are going to interact from the time the ball is released onto the lane until it goes off the back of the pin deck. Since there is going to be some interaction between the ball and the lane, your task is to determine what the interaction means to your strike delivery. Lane reading is a continuous process (p. 21).

Adjusting to Lane Conditions.

Once the lanes are read properly, the bowler must determine which adjustments produce the greatest utility in strike production. Nearly all adjustments can be classified in one of three ways: line or angle, equipment, delivery. This chapter provides the reader with a solid analysis of each categorical type, as well as other changes which might be necessary. The objective goal is always to get the ball surface/lane surface interface to work positively for you. Once achieved, par players recognize lane change with use and thus, adjusting becomes a continuous process.

This solid chapter, which should be mastered by any bowler who strives to be a par player, offers an excellent discussion of line and angle adjustments, equipment adjustments, delivery adjustments, multiple adjustments, complementary adjustments, competing adjustments, over-adjusting, and under-adjusting.

Checkpoints On All Strikes. This short, final chapter of Section 1 is important because it informs the bowler when and why certain topics of thinking should occur. What should be thought about before the bowler steps upon the approach and what should be focused on while on the approach.

In the final analysis, a good physical game and a good mental game can only be developed by taking one shot at a time and concentrating on each given shot. Each shot provides the player with valuable information that tells him/her if adjustments are necessary and, if so,

what type of adjustments are probable.

READING THE LANES. This section begins the in-depth discussion on each topic offered in the previous section. Reading a lane simply means the bowler is able to determine what the ball and lane are doing together to produce an interface action. The authors cover the key factors in lane reading with special attention paid to the approach, the heads, the pines, the back-ends, and the pin deck. There's also a first-rate discussion on lane conditioning and shot-making.

Included here is also a discussion on "reverse blocking." I hope the ABC has taken this information into consideration with its so-called "system" that the bowlers will, in all probability, be subject to next season. Any system which allows reverse blocks to be considered normal or conducive to "shot-making" or a test of skill will kill bowling-as-a-sport and then, within a short period, kill the recreational part of the business.

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As the authors point out, good scoring on "reverse block" conditions is generally a matter of luck rather than skill. If you have to bowl on these conditions on a regular basis, then your game will not and cannot improve—so why bowl?

Conditions should allow the bowler to have a positive ball action—you cannot maximize potentiality if conditions are not conducive to positive ball reaction.

ANGLE ADJUSTMENTS. The most common adjustment made by all bowlers are line or angle adjustments. This chapter provides the reader with a description of proper methods for playing all strike lines and angles, in addition to providing methods to find the most productive angle at a given point in time.

One very fine portion of this section is devoted to "a personal formula for playing any angle." This mathematical approach to the game will help every player determine his/her exact stance location on the approach for every foul

line angle. Thus, it will give you the exact board on the approach for your stance location, resulting in the ability to align oneself properly at all times.

EQUIPMENT ADJUSTMENTS. This section on the second major category of adjustments provides the reader with information on ball tracks, weight blocks, and three of the four major types of equipment changes, including surface changes, weight balance changes, and fit changes. While label and axis weight type of drills are discussed, the one major change not covered (because the text was written in the pre-equipment revolution era) is the location of weight block, types of weight blocks, and use of weight blocks.

If the reader wants to get a firm understanding of the equipment revolution, the reading of Billy Hall's articles on equipment in *Bowler's Journal* and/or Jerry Francomano's articles in *BOWL Magazine* is a must.

The issue at hand for the 1990-91 season is whether bowling's "leaders," the ABC and its new-found ally, the PBA, will take a reactionary retrogressive relapse into the recessive pre-urethane era with its ludicrous "system." Any system based on "correct abstractions" which are imposed on the lived reality reveals "the fallacy of misplaced concreteness," which, in turn, functionally results in a utility of negative results which lead to chaos and disarray.

Proper equipment is essential for high scoring. If the reader wants a good introduction to topics such as ball weight and deflection, weight blocks, ball tracks, ball roll, and axis weight (where the bowler can get the weight imbalance far away from the track, thus reducing over-reaction while retaining the maximum influence from the given imbalance) then this section is excellent. Also included is a chart by Bill Taylor that standardizes ball tracks with labels and full descriptions.

Ball Balance Adjustments. This is a good introduction to topics such as top weight, finger weight, thumb weight, bottom weight, positive side weight, negative side weight, and a combination of weight imbalances. Yet, while weight imbalances are extremely important for the advanced player, weight imbalances will not aid the underdeveloped player who does not have a solid physical game.

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If the bowler cannot repeat shots, advanced information on equipment cannot overtly help him or her.

Ball Surface Adjustments. This chapter is dated in that a great deal of progressive changes has occurred since the publication of this text. Yet, it can and does serve as an excellent introduction to the importance of ball surfaces in the context of equipment adjustments. A necessary but non-sufficient chapter.

Ball Fit Adjustments. In this solid chapter, important topics such as span, pitches, fit, hole alignment, standard and offset alignments are covered.

DELIVERY ADJUSTMENTS. Topics covered are delivery adjustments such as speed changes, loft changes, lift changes, as well as a discussion on roll patterns and the importance of revolu-

tions. This section is strictly for the advanced player because

delivery changes are difficult to make and require a great deal of practice to successfully incorporate into your adjustment arsenal. Each time you make a delivery change, you must be careful you do not create problems with your timing, rhythm or tempo. As a rule, make delivery changes only after you have tried angle and equipment changes first and have not been able to make a successful adjustment (p. 124).

The final sections (6,7,8) are devoted to angle adjustments, equipment adjustments, and delivery adjustments with the left-hander in mind. The value of Allen's pedagogical methodology is that the left-handed player should not have to stop and "reverse" the process, image, or information that is being presented. Dr. Allen's pedagogical approach is sensitive and should be given special consideration just for this type of insightful teaching.

The text closes with three appendixes covering a dictionary of strike-related terms, interesting facts about strikes, and books for additional reading.

The Complete Guide to Bowling Strikes is a solid contribution to the growing library of informative literature on bowling. While the text has only one major weakness (it was published before the current "equipment revolution"), it is important and I recommend it to every serious bowler who is or strives to become a "par" player. A useful resource that offers the strong possibilities for productive results.

(Again, if your local pro shop or bookstore does not carry this series of texts, they are available from Tech-Ed at 1-800-521-BOWL for less than \$20.)

PBA member Gary Parsons, an instructor to the pros, is currently offering a bowling course Sunday mornings at Fair Lanes Waldorf.