

Who Was It - Or More Importantly, What Was It?

Well readers, this is the moment you've all been waiting for. The month you find out who that sorry son of a bowler is. You've patiently waited 12 months sifting through eight different reviews of this fella's road to becoming the super bowler-athlete. Before I answer that lone question, let's review the meat of the matter. Keep in mind, this study was one of the first of its kind. It is actually the third study I have done in this area, but the first to have made national attention. The two previous studies were shorter in duration while showing strong positive correlations for the relationship of sport specific training and bowling performance. Continued investigation of the matter was the result and this study evolved out of them.

What It Was

A study was conducted testing *The Bowling-Specific Training Program* with a single test subject over a 12-month period. Exploring the effects of sport specific training is gaining popularity among those of us in the sport science community, but bowling-specific training has not been studied at all. The purpose of this study was to determine the impact of bowling-specific training on 1) bowling-specific physical fitness and 2) bowling related performance. The investigator administered a research protocol called a Single-Subject-Pretest-Posttest-Experimental Design that are fancy words for one person subjecting himself to the program under stringent guidelines and consistent measurement.

One man was hand-chosen from many. He was required to commit one year of his life, three days a week, to *The Bowling-Specific Training Program*. He was obligated to maintain his lifestyle paralleling that of years past and not allowed to do anything out of the ordinary; he was his own control group. I found him an adequate training facility and introduced him specifically to the program covering all details and parameters. I educated him on the two training principles and affiliated him with general health and wellness. I personally trained him so that he could do it on his own.

He was required to submit to three different physiological screenings at the University of Michigan's Preventive Cardiology, beginning with the pretest September of 1997 and concluding with the posttest September of 1998. The subject's training program, bowling performance, physical (biomechanical) game, and bowling-specific fitness were all monitored and recorded continuously.

What It Found

The results of this study yielded a statistically significant difference between the pretest and posttest for bowling-specific physical fitness. It also yielded a statistically significant difference between the pretest and posttest for the subject's bowling performance. Further review revealed bowling-specific strength, flexibility, body composition, blood serum level, and cardiovascular fitness all differed statistically. Using advanced statistical means with a probability level of .05, the results of this study showed *The Bowling-Specific Training Program* significantly influenced the subject's bowling-specific physical fitness that contributed to some degree a significant difference in his bowling performance.

What It Means

This study supported the investigator's precept *The Bowling-Specific Training Program* would influence bowling-specific physical fitness and bowling performance. Based on the purpose of this study, the results were both astonishing yet limited. This study was tenable with statistically significant findings in both bowling-specific physical fitness and bowling performance, though limited in empirical support and the use of a single subject design. The study is highly valid and reliable from the standpoint that it followed stringent research methods and sound statistical analysis. The results were statistically significant and encouraging, and the subject's qualitative review of his performance was outstanding. However, much like any other speculated performance enhancer (psychology, balls, bowler aids, video, etc.), until it has been studied on multiple occasions in multiple setting, claims to their importance can only be inferred and theorized.

Knowing there was little empirical support to begin with and the study used a small sample size as compared with the population, the investigator really performed the study to break ground in the area of training and performance. With little related work done in the area, there was nothing to go by as far as a guide or recommendation from former researchers. In essence, the investigator performed the study to open the door and pave the way for more extensive research on the topic.

What Is Next

Quite simply, take the study and the subject's qualitative evaluation seriously. Make your own educated decision based on what is proven and effective. Last, but not least, push your bowling organizers to fund continued research in the areas of bowling-specific training and performance outcomes. Don't do it for me, do it for growth and development of our sport into the new millennium.

The following interview is the last candid report from the subject concerning this study. Review his comments carefully and determine who he is (credibility), and more importantly why we should listen to him. What does he say about his bowling? Is training for bowling really important? What order of importance does he give training?

What did you learn from the study?

My initial perception of our sport and physical fitness wasn't accurate. I have practiced very minimally over the last eight years including this past season and the training routine improved my ability to bowl during the study. I was a good bowler to begin with and always considered bowling strictly a mental game. I, like so many others, placed no credibility in the physical aspect. **Nevertheless, what I have come to realize, is the true missing link in the goal of competitive excellence is the training aspect.** What I can now visualize, my mental bowling, my body can accomplish.

What about your commitment and sincerity?

It was fun to start. The study motivated me in the door. I knew it was something I needed; heck, my doctor has recommended general physical activity for years, but I was never committed. *The Bowling-Specific Training Program* was the vehicle motivating me to get started and it was in my industry so I knew I would learn something new. We all hear annually the million benefits of activity and how we should all be exercising; the study enabled me to stay committed. My only personal goal was simply to give it a try and do it. I wanted to prove to myself I could stay committed whether or not it enhanced my bowling. **Now that I look back, more has happened than I ever thought. I can't believe how far I have gone in the past 13 months with just the training program.**

What's your take on bowling-specific cardiovascular training?

Cardiovascular training is most important. I think it's a huge under estimated factor. I was an athlete for years, but this structured cardiovascular training using a heart rate monitor allows me to regulate it specifically. I'm now a converted enthusiastic supporter of a heart rate monitor with cardiovascular training. Why, because it is so easy to under and overtrain reducing the benefits and contributing to attrition. My training range is 129-158 and I make sure I'm monitoring it every minute of my cardiovascular training.

What's your take on bowling-specific strength training?

I enjoy strength training. I am strengthening and toning my body specific to the needs of my sport, not bodybuilding. The strength-training principle is designed to increase muscular specific strength and flexibility. Now that I've viewed my final evaluation (note: the subject was not aware of his results until just prior to the interview), it is easy to see my strength and flexibility increased and my body toned up while I dropped 30 pounds of body fat. 30 pounds of fat is huge.

Do you believe the testing was valid and reliable?

YES, the cardiovascular stuff was state of the art and all the procedures were well-structured, organized, and carried out consistently using repeated measures. This is valid data, professionally gathered.

Who is the subject and why should we believe him?

I am a student of the game with more than 30 year's experience in our sport. I am an IBPSIA Certified Technician. I am a USA Bowling Silver Level Certified Coach. I am on the board of Directors of The International Bowling Pro Shops and Instructors Association, and on Ebonite's technical advisory staff. I teach at all Bowlers Educational Clinics and Super School. I am a professional pro shop operator and I write for Pro Shop Today. I can coach the physical game and I know equipment and fits. **More important, I am the most qualified person to speak about my game and the changes that have occurred during this study.**

Should other bowlers start *The Bowling-Specific Training Program*?

What, are you kidding! Anyone, and I mean anyone that is serious about being a better bowler should be training on this program. To me, if you don't do this, you are not entirely a serious bowler. **You can buy balls, manage your equipment, psychologically prepare, take multiple lessons, and even practice 90 hours a week, but without sport specific training, your most important variable (your body) will always limit your ability. Listen folks, this is a professional ball technician and instructor saying this.**

What benefits did you perceive from your training?

I am bowling longer, stronger, and more effectively. I won more \$\$ from the positive changes in my game. The difference in good bowlers really isn't that great, therefore, the training program could be the deciding factor differentiating bowlers. I have my first two sanctioned 300 games. I had some compromised knee (joint) pain from an old baseball injury - the leg exercises improved my pain-free range of motion. I now have a greater range of motion without pain. The pain diminished as the study went on.

The weight loss and subsequent fat reduction seems to have freed my arm swing even further and another honor score is the result. Lowering the girth in my midsection and loosening my shoulder joint has reduced the tendency for my swing to 'bump' out. I feel the ball closer to my ankle and see it on video. My leverage has increased at the bottom of my swing and the pro-groove is looking good.

The confidence boost that comes with the knowledge that I am training to be a better athlete is awesome. I didn't train to be a bodybuilder; I trained to be a better bowler-athlete. I can feel and see the difference. I'm sharper now, more focused (clarity of thought). I now have achieved a tremendous self-esteem boost from doing something good for myself. It has helped my mental outlook, the amount of anxiety and stress in my life is reduced, and I have noticed many psychological benefits.

My physical ability now. I have a greater range of ball speeds without degrading my form. I can confidently achieve greater speeds without sacrificing my form. Where I bowl, the heads are deteriorated and ball speed is a premium. I struggled with that over the years. I have seen a definite ball speed increase 1-2 miles per hour without diminishing my form at the line. I can throw the ball harder more consistently and not lose my balance as in years past.

What an asset. Better swing, better legs, it's obvious - I'm a better bowler. Remember that I agreed to do this study as a disbeliever. You hear me now, I joined a health club and dedicated to this training program and study with no preconceived notions. I didn't really think it would factor into my bowling. Boy was I wrong.

Anything else you want to tell the readers?

This one thing can do more for your game than any bowling ball, case of balls, private lesson, or camp. It's the greatest one thing that I have noticed over the years that has made a significant impact on my performance and ability. If you could do only one thing to improve your game, this is it. And I'm saying this as a ball guy. Remember, I am a professional pro shop owner/operator, a certified IBPSIA Technician, an instructor, and I know the ball technology. **I know balls and I think this is far more valuable than a whole case of them. This is the real deal. If you want to be a better bowler, this can have one of the biggest impacts on your performance.**

The End

As I conclude this series on a bowling related research study, I am utterly grateful to the subject, Mark Robey, for donating the past year of his life. Though he was not paid, I owe him a debt of gratitude. He took great time out of his day, dedicated himself 100%, and garnered support from his family. Thank you, Mark Robey.

Quite simply stated, bowling-specific training is not a macho-thing, nor a bodybuilding mentality to exercise. It is specific to the needs of the sport and athlete, geared to enhance your bowling specific physical fitness. Every sport is driving home this message that athletes need to train specific to the needs or demands of their sport. In our case, bowling is no different. I have seen many sport specific training programs and now I have created one for our sport. Though the jury is still out on the exact amount, type, and number of bowling related benefits derived from this training program, be assured I designed and tested it for the bowler-athlete. If you think you are a bowler athlete and need to get your training online, contact me and I will personally help you get started.

Finally, I would like to test a female subject on this specific program to provide data for comparison. I do not want to neglect the female population, so if you are interested and challenged by this study, please contact me and we can begin the screening process. Hope to hear from you. Until next year.