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How using Trackman can help coaches produce better results

The purpose of this case study is to prove that using Trackman can help coaches produce better results with their students by giving them factual feedback from Trackman.

This study will analyse eight individual golf lessons. The first four lessons will be conducted as normal with Trackman running in the background but not being used during the lesson. The next four lessons will be conducted using Trackman as a feedback device and showing students how changes to the swing will affect the impact factors and resulting ball flight.

We will then compare all eight lessons using the data gathered from Trackman, my own coaching notes, and feedback from each player in order to offer a conclusion as to how valuable trackman is as a coaching tool.

We will show the results of each lesson using a before and after screen shots of a ball flights and dispersion patterns.

Lessons without Trackman

Lesson 1: 19 handicapper

Initial Ball flight

Pulls, Pull hook, slices and push slices. No consistency.

Goal

To develop some consistency in the strike, and finishing point of the ball flight.

Assessment

The player in question struggled to produce any consistency with his ball striking. Some of the player's shots produced big divots, some none at all. The starting direction and curvature also varied wildly as you can see from the before screen shot (below).

Notes

The player in question struggled significantly with a loss of posture throughout the swing, which caused him to start the downswing with the upper body resulting in a significantly out to in path. I felt this started from the address position where the player was too far from the golf ball, very top heavy and all his weight was positioned on his heels. We began by getting him in a more balanced posture, standing a little more upright with more knee bend than before. Once the player became comfortable with this we did a small bit of work on how he sequenced the swing. We did a simple step in drill to try and get the lower body doing a little more work which appeared to really help the path of the club and the resulting ball flight. The shot began to turn into a fairly consistent pull which was much improved from his initial ten shots which had little or no consistency.

Coach notes

Looking back at the trackman Data the changes made to the player made a big difference to his consistency, almost halving how far off line he was hitting it. The ball flight became a very consistent pull and his distance increased by an average of more than 11 yards. The player was very happy with the lesson however if I had seen the Trackman data during the lesson I would have worked a little more on his attack angle to try and get it somewhat steeper to improve his strike even more. I also would have been able to give the player on the spot feedback about his improvement in distance.



INITIAL AVERAGES



RESULTING AVERAGES

Lesson 2: 19 handicapper

Initial Ball flight

Pull hooks & push slices.

Goal

To give the player some control of where the ball will go as he currently has no control of where the ball will start or finish.

Assessment

The player in question has approached me after getting lost with some of the technical issues he has worked on, which resulted in no control of the ball at all and a complete loss of confidence. Upon looking at some shots the player seemed to make a change after almost every shot. On some shots the path seemed out to in and sometimes the opposite. On some occasions the player took divots on others he did not. The biggest thing for me was to provide some consistency in what he was working on and a consistent train of thought that he can trust.

Notes

Given the inconsistency in the path of his swing and where the ball was going I decided to pick one direction for the player to swing towards. To me more shots were starting and finishing left of the target and more tended to have a fade shape to them, so I decided to try and get the player to feel like he was swinging more to the right, but to do it every time regardless of the result. We also made some changes to the players grip to help improve the strike a little. After putting an alignment stick on the ground pointing right of the target and getting the player to make plenty of practice swings along this line we started to see a much more consistent path however we still seen plenty of misses indicating a possible face issue. As the lesson progressed we seen the dispersion getting closer and closer together, and the face issue almost fixed itself as the player developed consistency in the path of the club.

Coach Notes

Following the lesson we took a good look at the data Trackman had taken throughout the lesson. As we thought the face and path were very inconsistent, if we take the face as an example it varied as much as -14 to +14, a 28 degree difference. However looking at the last 15 shots this had been improved by a huge 22 degrees, only varying between +3 and -3. I simply put this difference down to the more consistent path. If the path changes a lot from swing to swing how can the player have any consistency on where the face is aiming? One thing that had been missed during the lesson that trackman had picked up was the angle of attack which was

very shallow. However whether I would have adjusted this during the lesson would be questionable as we had worked so hard on the path issues and resulting face issues. However it would have been very useful information to know for the next lesson.



INITIAL AVERAGES



RESULTING AVERAGES

Lesson 3: Scratch Handicap

Initial Ball flight

Draw with bad shot being either a hook or push.

Goal

To get rid of the hook shot and play a more consistent draw.

Assessment

The player was struggling with the direction and curvature of the driver. She feared a hook so often over compensated and hit a block/push. The player expressed that she wanted to keep the draw shape but wanted more control of it. To me if we could get the ball starting more to the right of the target we would instantly have better results, but her path may also need to be looked at to help reduce the curvature.

Notes

After making a small grip change and opening the face slightly at address the player felt like she was going to lose the ball to the right. After some convincing and several practice swings we moved to hitting some balls with an alignment stick 20 yards in front of us on the ball to target line. Her focus was to swing normally but try to start the ball to the right of the alignment stick. Instantly the player's ball began to start right of the alignment stick and curve back towards the target. After several shots the player began to hit a very consistent high draw onto the target. Due to the consistent results I felt no need to look at the path however it may be something to look at in future lessons if she began to curve the ball too much.

Coach notes

After looking at her Trackman data afterwards it was very clear that adjusting the face angle was the correct option rather than the path, however without the Trackman data changing the path had been a consideration. The player was very happy with the results and liked the idea of the alignment stick on the ball to target line as a visual aid for the starting point.

If we look at the averages before and after there is no real difference between the figures, however as you can see there was a huge difference in the shots. This is because on the shots she tried to compensate on and over exaggerated how open the face and path were, balanced out the hook shots that the face was square to the target or closed. If we look closer however there is a huge difference between the before and after figures on individual shots.



INITIAL SHOT AVERAGES



INITIAL HOOK SHOT



INITIAL PUSH SHOT



RESULTING AVERAGES



RESULTING DRAW SHOT

Lesson 4: 14 handicapper

Initial Ball flight

Push slices

Goal

The player in question has recently come back from a break from golf and has no control on where the ball is starting. Our goal is to give the player a better starting direction, and some control over where the ball will finish.

Assessment

Given the starting direction and finishing point of the shots it was fairly clear that this was a face issue. Generally when we see an excessive out to in path the ball will start somewhat left of the target line or much closer to it, but in this case the ball was starting significantly right of the target line and moving further right.

Notes

In this case the player had a very weak left hand grip which was held in the palm. This meant the player's hands were almost fighting against each other causing the player to have the club open at impact. By getting the player to grip it more in the fingers of the left hand and rotate the hand slightly to the right, her two hands now

“matched up” allowing her to gain more control of the face and square it a lot more at impact.

Coach Notes

After looking at the Trackman Data we could see that we had improved her face angle by 7 degrees by just changing her grip. We could also see that her distance had jumped up by 22 yards. This was an extremely successful change however after looking through all the data I noticed that during the grip change I had missed quite a few heel strikes. At the time I had simply put the shot down to the face being open to the target which was wrong, and her face and path had actually been much improved. Having the Trackman there during the lesson would have helped me identify which swings produced a better face angle at impact and which were heel strikes causing significant curvature.



INITIAL AVERAGES



RESULTING AVERAGES

Lessons with Trackman

Lesson 5: 9 handicapper

Initial Ball flight

Slices and pulls with no real idea of where the ball would finish.

Goal

Our goal is to give the player some consistency to the shape and finishing point of his golf shots to help increase his confidence with the driver.

Assessment

In every shot the player hit the ball started left of the target, however there was no consistency to the face angle at impact which varied from 9 degrees left of the target line to one degree right of it. A combination of the varying face angle, the significantly out to in path and several heel strikes proved nearly impossible for the player to get any consistency or trust in where the ball was going to finish.



INITIAL AVERAGES



INITIAL SLICE SHOT

Notes

Although the player had mentioned a preference for hitting a fade, for me his path was still far too out to in averaging over 7 degrees left. After explaining his trackman numbers using alignment sticks, and then showing him what we were looking for we set work on reducing how out to in his path was. After working on a simple drill using a dot on the ball for where we want the club to make contact with it, and referring regularly to the numbers the drill was producing, his path began to quickly change. As the path became less out to in we also noticed the face to path began to get much closer together, and the player's ball flight became a very consistent fade even though we made no real adjustment to the face. The player in question had told me that as the path changed he felt he did not need to manipulate the club as much and he could just "let it go".

Coach notes

This lesson was particularly interesting for me because the player had mentioned he was a computer programmer and seemed very interested in the figures Trackman would give him. He had also mentioned that in previous lessons he could not get a feel for what they were trying to teach him, which indicated to me that he could be an AD (Auditory Digital) learner, in other words he would connect with the numbers and understand them, as opposed to a video or feels that I may give him. As it turned out I was right, he loved the feedback he got from each shot and was able to make changes very quickly based on what number Trackman had given him. He felt like he had a target to hit with the face and path numbers and became almost obsessed with reaching them. This to me was a fantastic example of how Trackman can be used and adjusted for different learning styles. Had I given him a video lesson or one

based on different feelings he may well have gone away even more confused than before.



RESULTING AVERAGES



RESULTING FADE SHOT

Lesson 6: PRO

Initial Ball flight

Hook with some push shots and pull slices

Goal

Our main goal was to give the player more control on the starting direction of the shot and reduce the right to left curvature of the shot.

Assessment

The player in question has a strong draw/hook shape to his shots. Although he prefers this curvature to the left to right fade, he has gotten to a stage where it is almost uncontrollable on the golf course, and nearly always finishes left of where he is aiming.

Notes

Often with better players they will have a ball flight preference and not want to make certain changes, however because we are dealing with skilled golfers this can be quite easy to work around. In this case the path was in to out (+4.8 degrees on average) and the face almost square to the target or slightly closed. This combination of face and path will obviously produce a ball flight that starts a touch right of the target, and curves left of the target. In some cases the player's path was as much as +7 degrees with an almost square face. We also noticed a couple of toe hits which would also exaggerate the right to left curvature.



INITIAL AVERAGES



INITIAL HOOK SHOT

To get the ball to start right of the target we worked on getting the face open through impact. We used alignment sticks as a visual aid for where we wanted the ball to start, while constantly giving him numerical feedback from Trackman as to the position of the face at impact. We also tried to get the player to swing slightly more left than he was, almost like he was trying to play a small fade. By doing this we began to do two things:

- 1) The more open face allowed the ball to start more right of the target
- 2) The smaller difference between face and path meant that curvature had become more of a small draw than a destructive hook.



RESULTING AVERAGES



RESULTING DRAW SHOT

Coach notes

Trackman was a fantastic tool to use for this pupil for two reasons: Firstly it helped the student understand that the face must be open to the target line to achieve a draw. It allowed the student to have very detailed feedback on each shot describing how open the face was to the target and allowed us to match feelings and changes to numbers and results.

Secondly it helped us reduce the difference in path and face, and show the player that the small changes to each one, can make a huge difference to the ball flight and consistency of the shots he hits.

Lesson 7: 12 handicap golfer.

Initial Ball flight

Push and push slice. Extremely inconsistent with distances

Goal

Our goal is to start the ball closer to the ball to target line and reduce the difference between the face and path in order to reduce the curvature of the ball.

Assessment

In almost every case the ball started to the right of the target line. As trackman shows, the player had an in to out path varying from between 8-12 degrees. This combined with a similar or more open face angle resulted in pushed shots and push slices, and very inconsistent carry distances.

Notes

Normally when I see curvature issues the face would be my first step. However to me the player was sometimes able to time the face quite well with the path, so I decided to make changes to the path and see how the player's face angle reacted to those changes.

After some drills working on the direction of his swing and matching what he felt to the trackman figures we began to see a massive improvement in his path, and his face began to get closer and closer to it.

As you can see from the screen shots below the player's ball began to finish significantly closer to target, the first 20 or so shots were ranging from 45 feet to 102 feet off target, with the last 20 or so ranging from .5ft to 38 feet off line.



INITIAL SHOT SAMPLE



RESULTING SHOT SAMPLE

Coach notes

Trackman made it very easy to identify why the ball was starting right of the target and often curving further to the right. Although the face was significantly open I felt the path was the more important figure to change, and that the face would follow. The feedback we were able to give the player throughout the lesson was invaluable to the player as he matched his feelings to the figures throughout the lesson. It meant that the player trusted what felt like an exaggerated motion much more than he would have without trackman.

Lesson 8: 0 Handicap

Initial Ball flight

Struggles to control his wedge distances on shots under 80 yards

Goal

Our goal was to improve the players feel for various distances and his ability to control the flight of the ball better.

Assessment

The player in question came to me and said he was struggling with his scoring clubs. I felt the easiest way to test was run a mini-combine test which involved the first 3 shots of the combine for 60/70/80/90 and 100. During the test the player struggled to

control the distance on shorter shots however once the player got to 80yards they significantly improved. I also wanted to test some shots below 60 which he also struggled with, in some cases was up to ten yards or more off with not only where he was trying to hit it, but also where he thought he hit it after he had struck the shot.



INITIAL COMBINE TEST 60 YARDS



INITIAL COMBINE TEST 70 YARDS



INITIAL COMBINE TEST 80 YARDS

Notes

We worked hard at getting a feel for yardages 50/60/70 yards with block practice on those yardages. We also asked the player to give us an exact figure as to how far he thought the ball had travelled just after he made contact with it, and when the ball landed we would give him the actual exact carry distance. Following that we conducted another combine test to see the improvements. All distances scored above 85%. Following that we decided to make it more like a real golf situation. We would call a random number and ask the player to try and hit it that distance, and as before have the player tell us how far he thought the ball had gone and we would give him the actual figure. This proved extremely successful as the player began to get dialled into the distances and how far he felt each shot was going. The final step was controlling the ball flight. I would again ask for a random yardage, but also say how high I want the ball to go. Again the player began to really control the golf ball and got closer and closer to the yardages.



RESULTING COMBINE TEST 60 YARDS



RESULTING COMBINE TEST 70 YARDS

Coach notes

This lesson could not have been possible without Trackman for several reasons. By using Trackman I could measure results, get exact feedback on distances and flights, and relay this feedback to the player. After just one session the players

wedges had significantly improved, which showed with some fantastic tournament results in the following weeks.

Conclusion

This has been a very interesting study for me as a coach and a golf fan as it has given me answers to several criticisms some coaches may have of Trackman and it has allowed me to demonstrate how useful it is in realistic coaching circumstances. Is Trackman essential? Technically no, as you can see from the first four lessons we are very capable of giving good lessons without Trackman and achieving good results. However using Trackman means there is never any doubt in our diagnosis of any situation or ball flight. We will never address a wrong impact factor when we are using trackman and we always have evidence that the changes we are making to a player are working.

Trackman allows us to quantify every movement of the club through impact and shows us what effect it has on the ball. By doing this we can show players certain numbers to help them understand what the club is doing, and also give them a numerical goal to achieve by the end of the lesson. Trackman will give the player instant feedback on each shot which will help the player improve faster than just working off a feeling or a ball flight.

Trackman allows us to test every player that comes to us for a lesson, identify their weak points, and then compare them weeks or even months later to show us and our pupils how much they have improved. We can give precise feedback on distances and trajectories which means we can take wedge practice to a new level when practicing or preparing for tournaments.

Trackman gives students and coaches instant, accurate and understandable feedback as to what the club has done at impact. For pro's who really want to excel at golf coaching, and give their students the most accurate feedback imaginable, Trackman is an essential tool. Just look at the amount of top coaches using trackman: Sean Foley, Jim McLean and recently Dennis Pugh all use Trackman as their system of choice.