

Breaking Down Breaking

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Introduction:

Breaking is not often an area of Taekwon-Do that gets taught much in clubs, and when it is taught, not a lot of time is really spent on perfecting breaking techniques and helping students overcome their doubts and fears. There may be many reasons for this, such as breaking does not come into the grading syllabus until Blue Belt, there is not enough time in a class to go through everyone's technique on how to break, there are not enough instructors to spend time teaching a class as well as individually assisting students with their breaking, or that someone is not confident in teaching others how to break. Breaking, a lot like every other aspect of Taekwon-Do, takes time to learn and perfect. With time and practice comes confidence, and the understanding of the concepts behind breaking, which will result in an improved performance.

I have chosen this topic as the focus for my thesis to help individuals wanting to teach breaking, as well as being a resource for those learning breaking techniques. Breaking is a part of Taekwon-Do that I became quite passionate about as a colour belt. The more I trained and competed in breaking, I was unsure as to why people did not like to break boards. This thesis aims to be able to help others teach breaking, so those learning feel comfortable and confident with it, in the hope that they begin to understand it a bit more. It would be great to see more newcomers to breaking not shying away, or feeling scared, or as though they can't do it. To get more people enjoying this aspect of Taekwon-Do, it starts with more people being able to confidently teach it.

There is already all the information about the theory of power and principles on breaking, as well as all the theory we learn as we progress through Taekwon-Do. This all help us understand how to produce more power in our techniques, but there is limited information to help us learn how to hit boards. There are books which tell us how to do each movement and learn our patterns, but sometimes a bit more information can help someone understand why and how to do something a bit more. With this thesis I want to guide people through the breaking process, which will also provide information to those wishing to teach breaking.

This thesis will not be used to tell you how you should break, as everyone will have their own style, but focus more on helping you find a style that you feel comfortable with to get into breaking training. I will also not be spending much time focusing on the knowledge that we already know, about how to gain more power. Such as the theory of power or the maths and physics about breaking, as most of us already have a basic understanding of this. This thesis is more about getting to work and physically understanding how to use these theories.

Throughout our Taekwon-Do training we start to learn and understand the theory of power and try to utilise the six elements in all of our movements. As we learn the six aspects of the theory of power, we begin to understand them as basic principles of the art. However, to gain the most powerful and purposeful techniques, all aspects must be working together. General Choi states that "The average person uses only 10 to 20 percent of his potential." And that "Taekwon-Do training will result in obtaining a high level of reaction force, concentration, equilibrium, breath control and speed; these

are the factors that will result in a high degree of physical power.”¹ Everyone will have certain limitations which allows them to only gain a certain amount of power with each technique, but with the understanding of the theory of power we can maximise each persons, and each techniques potential.

Before the break:

Power breaking is not just about hitting boards as hard as you can. It is important to start by learning the proper techniques first, learning the basics before moving on. If we look at the composition of Taekwon-Do we can see how every one of the five aspects; fundamental movement, pattern, sparring, dallyon and self-defence technique, link together and support each other, to improve the other areas of Taekwon-Do training. The same principle should be applied to power breaking. General Choi states what some areas of Taekwon-Do teach, “Sparring teaches humility, courage, alertness and accuracy, adaptability as well as self-control. Pattern teaches flexibility, grace, balance and co-ordination while the fundamental exercises develop precision and teaches the method, principle, imagination and purpose.”² When we look at this further, we can see how just through fundamental movement, patterns and sparring a student learns about courage, accuracy, balance, co-ordination, precision and the method and principle of the techniques. These are some of the most important parts of becoming a good breaker.

So, from this we get that a student should not start to break boards without first understanding the technique and how to execute it. This understanding and execution of a technique can be developed through the process of line work. Learning the technique and understanding the correct attacking or defending tool, as well as the target it should be used against. This is the beginning of the understanding and purpose of the technique. After learning the technique through line work it can be further developed through patterns and sparring to really grasp the technique, learning the accuracy of placement on a target, and the co-ordination of executing it from a stance. By first going through this process of learning the principles of the technique and how to execute them, it is easier to adapt the technique for power breaking and obtain the maximum amount of power through the technique. With a stronger understanding of how to execute the technique the student will also start to feel more confident in their technique and have a better belief in being able to use it.

Once a technique has been grasped and the student understands how to execute it, they should then move onto practicing on pads. Pad work can be really helpful in developing power and for further understanding of a technique. Especially when applying it to power breaking. Hitting a pad with the attacking allows the student to work towards breaking a board without injuring themselves, while also allowing the body to get used to being hit. It also provides some resistance which causes the student to generally put more effort into the technique and not be afraid of hurting themselves. Being able to hit a target that does not hurt will start to build confidence in the student.

Not everyone is going to have the same measure up, the same preparation, or the same break. To find a technique that works for the students it is best to experiment and play with different ways of doing the technique. Watching and trialling how other people do certain things, such as the way they step or the way they move, can help them find a style that works for them. To an extent, power breaking is a little bit about trial and error in the beginning. As each student has to find a way that they are comfortable breaking with. Trialling different techniques, the student can find something they feel

¹ Choi Hong Hi, *Taekwon-Do condensed encyclopaedia*, page 48

² Choi Hong Hi, *Taekwon-Do condensed encyclopaedia*, page 39

most comfortable doing and what will give them the most amount of power. While they are trialling different techniques, the students should still be focusing on the other aspects such as accuracy. By marking a point on a pad for repeated striking will further a student's accuracy. Once they have found a style of breaking that they like, then work can be done to improve their technique and maximise their power. A technique which is correctly performed, can provide devastating results.

Mental Preparation:

When it comes to breaking boards there are two types of conditioning that need to be considered. First is the mental preparation and building confidence in the student. Often there are two common fears of people who are unsure what to expect, getting embarrassed by not being able to break the boards, or scared about injuring themselves. It is important for the students to understand that these fears and concerns are okay, and that as an instructor you acknowledge that the student has them. It is good for a student to understand that their worries are normal and that with practice they will be able to break with less or no fear at all. To help students overcome their worries they need to prepare themselves, by making sure they can properly execute the technique and by getting used to hitting targets with it. The more time spent striking targets the more confidence will be built in the student's technique. By gradually increasing harder surfaces the student is striking, it helps the student understand what it is like to hit a board.

The biggest challenge with power breaking is often psychological, the thought "I can't break that" will often see the student not be able to break the board. To be able to break boards and become a better breaker, the student must believe they are able to do it. Along with constant practice, one of the most powerful tools to help achieve this mentality is to visualise the break. This type of mental training can be done anywhere and should start before a student gets up to attempt a break. The mental preparation is one of the most underutilised tools in power breaking. However, the act of getting a student to visualise themselves going through the board can help build their confidence and belief in themselves. Being able to visualise a break also takes a certain amount of training, to focus on the task at hand and not let your mind wander. As with any other aspect of training 'practice makes perfect' is the only way you are going to see real improvements in your focus. The more time a student can spend on visualising their techniques and breaking boards, the easier it will become to concentrate on visualising the break. At first, getting the student to visualise themselves going through the boards may be tough as they may have never done it before. So, to start it may be more useful for them to visualise a mentor doing the break, or a similar student. Seeing another person of similar capabilities doing the break can sometimes build a mentality in the student's mind of 'if they can do it so can I.' Being able to use this state of mind and visualise them breaking can help build the confidence the student needs to get started. Visualisation can even be of the break down of the technique. Sometimes a student may find it more helpful to visualise themselves going through the whole motion of the technique, focusing of certain points they need to remember.

Another useful tool in mental preparation and building confidence is to set achievement goals. Setting goals and writing them down gives the student more focus and something to strive towards. These goals should be set in stages with potentially an achievement date at each step to be able to measure the progress and see how far away from achieving the goal the student is. It is important to be able to measure a goal to be able to see the progress made. Setting goals such as the number of boards you can break, how many times you have broken the boards in a training session, or how many times you have broken the boards consecutively, are able to be physically seen and measured which will improve confidence and sense of achievement. A goal such as doing a better kick or improving the

technique is hard to measure and lacks the sense of achievement for the student as they cannot physically see it. The technique will automatically improve with the proper training and constant practice. The mental training is largely focused on building the confidence in a student's self which in turn will see greater progress in their breaking as the two work so closely together.

Physical Conditioning:

The second type of conditioning is physical. Anyone wanting to break must condition their bodies and tools to withstand the shock of striking something solid. Without strong tools there is a high chance of injury as the large amount of force placed on your bones while breaking can cause them to break. When an attempt at breaking is unsuccessful, the same amount of force transferred to the board by the student is returned to their tool which is often where most of the injuries are seen. With proper conditioning you can prepare for the large amount of force placed on your tools, thus reducing the likelihood of getting injured, as you increase bone mass allowing them to absorb a greater amount of force. As well as improving bone mass, conditioning also offers other benefits to the student's technique and training. By getting used to hitting solid objects and the body learning to take the force of the hits the student is able to deliver the technique with more speed and power as there is less fear of injury. This also helps to improve technique as the student is preparing to hit a solid object, they should be working on directing the force of the strike to the strongest joints, such as the hips, shoulders, knees and elbows, therefore improving the alignment of the whole motion. As well as the repetitiveness of doing the technique repeatedly to improve technique.

Conditioning the tools can be done in many ways, such as tapping different objects with the correct motion and tool, with a partner on a pad or against each other or doing light breaks to go through the whole motion. Conditioning is up to your imagination and you can do it pretty much anywhere, anytime, although it is important to ensure that you are conditioning the correct tools in the same motion the technique is performed. Each tool will require different conditioning techniques to toughen them ready for breaking, and some may require more than others such as the hands. To begin conditioning the tools, it is best to start off slowly and work your way up. Beginning with a softer material such as a punching bag or phone book wrapped in tape and working up to tougher and courser materials such as boards and carpet. It can be useful to also toughen the skin around areas such as the knuckles and back heel, and do this by causing abrasions using courser materials, like you would get from punching a pad many times, and letting it heal and over time it will grow back tougher.

With frequent conditioning the body works at strengthening the tools when you add stress to them, like constantly striking a solid target. Your body recognises the stress placed on these points and works on strengthening these areas. General Choi said, "Constant repetition teaches patience and the resolve to overcome any difficulty."³ As with any kind of training, conditioning takes time to build up strong tools ready for power breaking, allowing you to escape with less injuries. To gain the most benefits from your conditioning training it is best to practice more often with fewer reps, this allows your body to recover and strengthen between each. By overdoing the conditioning there is a chance of injuring yourself and losing progress as you let your body fully recover. Training more often with shorter times is also useful with breaking sessions, as it allows the students to process the information between sessions and helps to build their confidence. As they will feel as though their understanding will improve with each class. It is important for anyone doing conditioning or power breaking to

³ Choi Hong Hi, *Taekwon-Do condensed encyclopaedia*, page 39

listen to their body. When they start to feel discomfort with their tools it is best to stop and let them recover, removing the risk of injury. Although to maintain a good standard and improve, they need to keep up the regular training.

Physically conditioning the body is not just about strengthening the tools. Although it is a large and important part of it, you should also work on strengthening your muscles, speed and endurance training, as well as flexibility. Including strength training will not only work on increasing muscle strength but assist in reducing the risk of injury as the muscles support the joints. Increased muscle strength can increase endurance as well as the potential force applied to a technique with the ability to perform the technique harder and faster. When adding strength exercises to your training, it is important to remember the motion of which the techniques go through. To ensure you are strengthening not just the muscles but the motion of the techniques also. On top of strength training, adding in speed and flexibility training will also improve technique and help increase speed.

Knowing your equipment:

As with any sport, knowing your equipment and how to set it up is an important aspect of power breaking. Without proper understanding of the equipment you are using there is a good chance of injury. First, it is important to understand the different types of board there are to use, as each of them has different densities and breaks differently. For example, a peg board has quite a lot of flex to it, which requires the student to really follow through on the break and are a lot less dense than a polar board. Therefore, it does not hurt but still gives the student the feeling of striking something hard. The polar boards, however, do tend to bite back when not broken as they have a much higher density and take a lot more 'power' to get through them. To know the properties of each of the materials you are using will help you understand how to break them. Each board and each combination of boards have a certain amount of flex, at which point it will bounce back to its original state. Therefore, each break needs enough power and follow through to exceed the deflection of the boards and result in a successful break. Knowing your boards will also help the student understand where they need to hit them to get a successful break. With peg and polar boards, it is almost impossible to break the board the further away from the line you travel. Whereas with a wooden board, as long as you strike with the grain it can break almost anywhere. It has also been shown, that the closer to the edge of the board you strike the easier it is to break. Striking about one third of the board width as opposed to directly in the centre is ever slightly easier.

With a certain amount of understanding for the boards you are using, it also becomes important to know how to put them in the machine, or get them held, as well as for the student to set up their height for the technique. A student should know, through practicing on a pad hitting the same target, where on their body, the board should be. For example, for a side kick the centre of the board may be at hip or belly button height. Each technique may have a slightly different height to break boards at, but for a student to know exactly where on their body to measure to, shows confidence in your ability to anyone watching. As the students grow, or adjust their technique, it is important to make sure they keep checking the height they are measuring to.

When it comes time to start breaking boards, it is good for the students to start with an achievable break to build their confidence and get used to hitting a harder object. By doing a break that may seem easy, starts to lock in the idea that they can break the boards. Make sure the student is able to break the board multiple times and with proper technique and ease, before they move up to try something more difficult. A student should feel confident and comfortable with the break and be

happy with it before they move up to something tougher. As the student moves up, they should be increasing the board's incrementally. Such as going from one white board to a red board then a black and so on. By moving up in smaller stages, they are more likely to progress and improve their breaking ability, as opposed to just adding on an extra board. Using colour combinations and splitting boards to half or three quarters will show more progression and the student will be able to see and feel their accomplishments. Also, by moving up in steps, it is easier to find a level at which they are challenged with the break but still feel comfortable in doing it.

Breaking down a technique:

A good way to get students started with power breaking, is to break the whole process up into stages. This allows the student to focus on each stage individually, making it easier to understand. At each stage of the process there are a number of different points to remember. Whether its about remembering a guarding block or something about their technique. This also allows the student to spend some time working on separate parts of the movement, without having to remember every point about their break. For example, you may split up each break into five simple stages, setting the height, doing the measure, getting ready to break, breaking the board, and the finish. Each stage has different points to remember and it can get a bit overwhelming to try and remember all the points at once. Going through each stage individually or even a few times, allows you to adjust and fix anything wrong with the technique. The student is able to check their angle to the board, body position, ensure good technique and finishing strong. Additionally, to these five stages, you have the option of breaking up the technique into different steps to focus on particular things, such as the wind up or the follow through. Spending some time working solely on one aspect of the break that needs improving can show faster improvements, as the student is not trying to focus on all the other elements of the break at the same time. Getting the student to do each of the stages separately will increase their confidence as they feel as if they understand each stage better.

As a guide, here is a basic break down of what each of these stages would be focusing on:

- 1) Setting the height of the board in relation to your body, without touching the board. Staring strong with a good guarding block and solid stance. Taking a break and relaxing.
- 2) Making sure you are balanced before starting the measure. Measuring the technique to finish through the board toward the back of the machine. Ensuring you are on the correct angle for the technique and the right distance away. Finishing the measure in a guarding block in the correct stance.
- 3) Using your breathing to relax your body and focus on the visualisation of the technique. Allowing the muscles to relax, ready to accelerate towards the target. Tense muscles in power breaking will slow down the technique and make it suffer.
- 4) When you are ready to execute the technique, you want to ensure you use all your body mass by creating backward motion, transferring your weight to your back leg ready to fire forward, using all of your large muscles first. Utilising reaction force by using the larger core and increasing the mass applied. Making sure you strike through the target continuing technique to the back of the machine, while maintaining good balance throughout the technique to ensure all muscles are working on creating a strong technique.
- 5) Remembering to finish with a strong guarding block at the end of each attempt, whether the boards broke or not.

At each stage of the breaking process, each student will have different little things that work for them and will be personal to them.

The Break:

When it comes time to put all of the training together and break boards, each student needs to understand what the expectations of them breaking is. They need to know their routine well enough to be able to get up to break and be comfortable doing so. For the student to know what they are expected to break is important, so they are able to train to their requirements. There is little point in only training a single board break if they are expected to do multiple boards, as they will not be used to going through that amount of boards. With every attempt at a break, whether you're breaking the required boards or doing an easier break, it is important to do every break the same way. To run through the same routine every time solidifies the process and eliminates any chance of missing parts out.

To improve at breaking, every attempt needs to have 100% commitment behind it and have complete follow through. One of the most essential aspects in achieving this is speed. As soon as the tool starts to travel towards the board it needs to travel as fast as possible, to ensure all the energy in the movement is committed to the split second required at the board, to be able to break it. Concentrating all the energy built up throughout the movement into the tool and through the board, will result in a successful and painless break. As well as speed, you should be utilising all of your mass to go through the board. This starts with the use of all the larger muscles, from the core, glutes and upper back down to the smaller muscles in the legs or arms, finishing with the slight downward motion of the sinewave at the end of the movement. Using your full mass at speed while the tool travels in a straight line towards the board will produce devastating effects. To get the body moving and provide as much traveling distance towards the board, it is useful to transfer the weight onto the back leg, turning slightly away from the target creating tension through the major muscles. That way the technique can fire through the whole body and up from the ground.

At the moment of impact, you should be anchored to the ground with a solid stance or supporting leg to use the ground to push into, as well as take the force of the break and ensure you are not thrown backwards away from the target. A strong and balanced connection to the ground will ensure there is no loss in power through trying to stay balanced and upright. On top of utilising the ground to produce greater force, there must also be reaction force with the body. As the tool travels towards the target, an opposite reaction needs to occur. Such as the opposite arm should be pulled back to the hip for a hand technique, with a greater force being produced by creating this reaction force. Each technique will have a different type of reaction force, like the upper body moving away for a side kick or creating a V-shape with a turning kick. As each technique is different it is important to make sure every part of the body is working together to produce the maximum force. As all parts of the body work together, all aspects of the theory of power must also overlap and all come together to generate maximum impact on the target. As mentioned before, a large portion of breaking will be trial and error. As everyone needs to find the most comfortable and beneficial way of breaking for them, no one person will break the same as others.

Conclusion:

Breaking is to an extent an individual thing, everyone has their own way of doing things. It is about finding a way that works best for each individual. This means they need to trial various approaches and figure out what feels comfortable, while achieving maximum results. Often only small adjustments may be needed to correct a technique, a larger amount of minuscule changes may be more beneficial for the student compared to changing the way the whole technique is done. This is where a good instructor can really benefit the student, someone who can help to identify changes that can be made. Someone who can instil confidence as a state or mind in a student, creating a positive training environment. The confidence a student has, the more often they will perform the correct technique, allowing for a higher percentage of boards broken. Throughout the whole process the students should be learning what their limits are, both mentally and physically, and strive to always be improving them. The students also need to understand that being good is not something that just happens, it comes as a result of experience and knowledge. They need to condition their tools, focus their minds and practice their techniques. As instructors you can give them the tools and show them how to use them, but without practice they will not get anywhere without practice. "Knowing is not enough, we must apply. Willing is not enough, we must do." Bruce Lee