It is true that for anyone who studies Taekwon-Do, in order for them to utilize, apply and perform the Techniques with effectiveness students must be prepared to study and understand the Theory of Power or the C.R.E.M.B.S of Taekwon-Do.

The Theory of power is broken down into SIX elements, each one harmonises the other, understanding them all will ensure the body performs Taekwon-Do in a natural effortless way that will achieve maximum results.

**CONCENTRATION - (Yip Joong)**

Concentration is broken down into TWO main elements. Firstly being able to understand the benefit of concentrating the huge force that is produced through movement into the smallest out put source. Thus when the body moves forward with a simple Punch, the entire forward force of the body, plus that of the actual punch is concentrated into the smallest output ie: the first two knuckles. The result of which is amazing force with a truly destructive result. The following diagrams show how concentrating force will produce more power. More so when we use that smallest output against a small vital spot on the opponent maximum effect is applied.

We can see by this diagram that the force created by the human weight is greatly increased by simply concentrating the weight. If we punch or kick and do not use the appropriate part of the foot or hand or hit the opponent on a large surface it will have the effect of the front of the foot, yet when applying correctly it will be like using the heel. A small person standing on your toe will be no concern if used the front of the shoe, use the heel and you have a different story.

This diagrams and photos show the effective way Students can break boards with little effort. Example ‘A’ shows the correct way to hit a board concentrating into the smallest area of the board thus causing a splitting motion, as opposed to ‘B’ which will be harder due to the impact force being spread out over the entire board.
Secondly understanding the benefit of concentrating every muscle in the body, especially the larger ones around the lower abdomen & hips into generating force into the smallest part of the attacking tool. The diagram shows a simple analogy of how a large muscle can increase the power output of a smaller attacking tool surface area.

**REACTION FORCE - (Bang Dong Ryok)**

Reaction force can also be broken into two elements.

Firstly - YOUR OWN is the understanding that every action has an equal and opposite reaction, thus the pulling back of one hand actually aids the forward movement of the other hand. In Taekwon-Do it is vital that reaction force is applied in order to enhance correct power output. The following simple diagram shows how this force is applied.

Secondly - YOUR OPPONENTS in understanding that his own onslaught which is large and yours which is small can cause a massive Reaction on the point of impact, this is particularly beneficial when students are sparring, understand this element will enable the student to beat an opponent by using the opponent against themselves. If the opponent is traveling into you at speed, a simple move to the side with a well placed strike will have a huge effect on him, as his own force which has large movement hitting yours that is hardly moving and small will in turn make the point of contact exceptionally destructive.

In conclusion, when sparring or performing techniques, when power breaking etc, your own reaction force will dramatically improve your total power output, whilst using your opponents reaction force will enable you to utilise minimum force with maximum effect on your opponent.
UNDERSTANDING THE THEORY OF POWER
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EQUILIBRIUM - Kyung Hyung
Equilibrium can also be broken down into TWO elements, ‘Static’ and ‘Dynamic’

Static - Equilibrium is utilised through the correct use of stances, maintaining the correct centre of gravity for each individual stance, students must therefore understand the measurements of each stance and distribute their weight correctly, this will allow a well balanced body thus maintaining equilibrium.

Dynamic - Equilibrium is the maintaining of balance through motion, keeping the centre of gravity central to the body’s movement will ensure that it remains well balanced, this is particularly important when kicking, often students trail their hands, or lean back too far, this off-setting the centre of gravity thus the student often looses balance when performing dynamic kicks such as high, spinning and flying kicks.

MASS - Zilyang
Mass is our size, it cannot be altered or changed, however through the growth of a student it naturally changes, if we get taller, bigger etc then our mass changes accordingly. The student must understand the ways in which we can utilise the correct use of our mass to enhance the power produced when applying Taekwon-Do movements.

Try pushing a Car up a hill, it will take several people, yet to push it downhill required none, the car has not changed at all, so it’s mass is constant, however using mass correctly we can increase it’s weight through gravity. There are THREE ways which will help utilize the correct use of mass to enable Taekwon-Do to be applied with force. Hip Twist - Knee Spring & Sine Wave.

Hip Twist - The large muscles around the hips and abdomen are very useful in utilising mass, we can create movement without movement, hold your arm still as if to do a low block with forearm, now rotate your hips, your arm is also moving thus creating power, combine the movement of the block together with the movement of the hips will increase the weight & Speed of the blocking tool, together with the other two elements of Mass will ensure an immensely powerful block is performed.

Knee Spring - Knee spring allows the correct use of our mass to gain weight through gravity, as we apply techniques in Taekwon-Do be they Attack or Block, a slight downward bending of the knees on impact will create the effect of rolling the car down the hill, thus at point of impact the body although maintaining its original mass, has in fact gained weight through traveling downwards, as a result additional power is transmitted through the attacking tool.

Sine Wave - Sine wave is a method of creating a cycle of power through a revolutionary cycle of movement, the analogy can be associated with that of an old steam train wheel, it’s arm is placed off centre, with one revolution of the wheel the arm travels in a Backward, Upward, Forward & Downward motion. Sine wave in Taekwon-Do produces the same effect when performing techniques, thus on the point of impact the body is traveling in a downward/forward motion, maximising effective body weight increase.

Harmonising all three of these methods when applying Taekwon-Do and one will be amazed with the additional power the human body can produce through gaining extra weight, through the correct use of it’s natural mass.
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BREATH CONTROL - Hohup Joojool
Breath control in Taekwon-Do is vital when applying any Taekwon-Do Technique, many students believe that breath control is only used when performing patterns, however it is fundamentally critical whilst sparring also. The correct use of breath control will stifle a blow when sparring, and thus will allow the student to continue sparring without stopping through being hit.

Breath control is applied through the tightening of the abdominal muscles at the point of impact, it is done by stopping the breath in a quick sudden instant, thus tightening all muscles, at the point when attacking an opponent it is vital to apply this correctly and at the instant of attack, thus making the body hard and able to withstand an immediate counter attack.

SPEED - Sokdo
Speed is the most important aspect of breaking and or attacking, basically power must be produced and to put it into simple terms Power = Mass x Acceleration. The faster you accelerate your attacking tool, the more power is produced. A ball may bounce off a glass window, yet if the ball ie it’s Mass is then kicked or accelerated, the same ball has increased it’s weight through movement or acceleration, thus having a far greater contact force, thus breaking the glass.

When students are power testing, it is vital for the student to remember to increase their mass’s speed, in doing so the target or wood/brick etc, will be struck with huge amounts of force.

The Hand or Foot within itself will cause no harm to anyone, simply accelerate it and it will have a devastating effect on anything it makes contact with, the faster it is accelerated the more power it produces.

In summary, if all aspects of C.R.E.M.B.S. are applied when ever the student performs Taekwon-Do, students will have a better understanding of how to get the best out of each technique, and will become more confident in their actual use and application, too often students neglect to learn the Theory of Power and often feel frustrated at the lack of performance of their techniques. Understanding the Theory of Power will certainly rectify their doubts.

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