Teaching Tremolo Technique in Pipa, Chinese Folk Music Instruments

Yuan Bo and Jinsinee Reogkwanyongmee
Bangkokthonburi University, Bangkok, Thailand
Corresponding Author, E-mail: nicha.musiced@gmail.com

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Abstracts

The pipa is China's most distinctive and representative national instrument, which evolved from the "oud" of Persia (Iran) more than two thousand years ago. Then the Chinese pipa spread to other parts of East Asia, becoming the Japanese pipa, the Korean pipa, and the Vietnamese pipa. This illustrates that different cultures in different parts of the world have produced different instruments and music. Even when the same instrument has evolved over a long period, each has developed a completely different style and method of playing. The pipa has been legendary since it arrived in China, with poems describing the pipa by famous poets and writers from many dynasties over more than a thousand years, and there are stories about the pipa that have been passed down to this day. In ancient China, the pipa became an important instrument for accompanying dances, ensembles, and solos in the imperial palace. However, at that time, the pipa was not played with fingers directly touching the strings but with a plucked instrument until 650 years ago in the Ming Dynasty, when the development of the pipa underwent a historical change, and the method of playing was changed from the original plucked instrument to playing with fingers.

Keywords: Teaching; Tremolo technique; Pipa; Chinese; Folk music instruments

Introduction

The pipa is a complex instrument among Chinese folk instruments, and the Tremolo technique is difficult to play and widely used in the pipa's rich repertoire of techniques. The Tremolo technique is essential to enriching and enhancing the artistic expression of the pipa (Yan, 1994 : 1). The beginner pipa player needs a long period to practice and master the Tremolo technique. However, private music schools need more beginner textbooks suitable for pipa players to practice the Tremolo technique. Most teachers use intermediate and advanced practice materials used by music colleges and universities, so beginners practice the Tremolo technique not from the most basic movements but by referring to the content of intermediate and advanced materials. Any technique should be practiced from the simplest basic movements, slowly mastered after consolidation and deepening before learning the next basic movement. Finger movements need to be fully adapted to practice techniques and should not violate the physical conditions of human physiology and pipa (Wang, 1983 : 1).

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The basic method of "Tremolo."

1) Up and Down Sequence

After the pipa has moved from plucking to fingerpicking, Tremolo is one of the unique techniques. The Tremolo is divided into Tremolo and Tremolo according to the order in which the fingers touch the strings. The finger order of Tremolo is the index finger, middle finger, ring finger, pinky finger, and thumb. The lower Tremolo finger order is pinky, ring finger, middle finger, and index finger, which is the same order as the guitars. From the recent development of the pipa Tremolo, the lower Tremolo is the main. The upper Tremolo was first recorded in the 19th century, probably in Hua Quping's "Pipa Score." Although the upper Tremolo appeared early, it became popular until the 20th century when the Wang Yuting school was formed. Over the centuries, the pipa's Tremolo is mainly the lower Tremolo, probably the reason for the change from holding the instrument horizontally and diagonally to holding it vertically. At the same time, it is also closely related to the limited volume of the traditional pipa and the use of silk strings. Of course, the name Tremolo came very late. The Tremolo starts with the little finger, which strengthens the middle finger of the little finger and ring finger, but due to the structure of the entire hand, the power of the Tremolo could be stronger. From the historical records, the first time the "General's Order" was played with the upper Tremolo double strings shows that the upper Tremolo is powerful. In addition, because the articulation of the Tremolo with the little finger and the thumb often requires wrist movement, it makes the whole Tremolo sound incoherent and inconvenient in articulating other techniques. The advantage of Tremolo is that the sound is more delicate and more suitable for playing silk strings, so this Tremolo has been used for a long time (Zhuang, 2018 : 93-97).

The use of "Wheel Finger" from the top is, first of all, louder, and the finger articulation in Tremolo ger" is smaller and generally does not require wrist force, so the playing is more consistent. Secondly, since the action starts from the index finger, it is easier to connect with other techniques. Therefore, since the upper Tremolo became popular in the 1920s and 1930s, it has almost replaced the lower Tremolo. Of course, nowadays, people are thinking about how to use the Tremolo as a specific technique based on the "Wheel Finger" and learn some of the strengths of the Tremolo. In addition, the prevalence of the Tremolo is not to say that it is unchanging. As the volume of the pipa has expanded, the strings have changed, and the playing techniques have been enriched. The structure of the instrument and the way it is played have also changed considerably. This is the evolution from the traditional "fan-shaped" structure to a "fist-shaped" or "doughnut-shaped" structure, which evolves in tandem with the structure of other techniques. The following is to further elaborate on the structure and method of Tremolo (Han, 2013 : 132-135).

2) The hand structure of the Tremolo

The traditional Tremolo requires a "fan shape" for the purpose and requirement that the touch points of the five fingers should be concentrated on a certain point of the string as much as possible to achieve the greatest unity in tone. For this reason, the whole hand shape is pointed, especially when the thumb is rotated to reach a similar point of contact with the other fingers. This inevitably causes the four fingers to be straightened and the whole hand to lack a strong structural framework. We know that the five fingers of the human hand, the four fingers, are side by side in one direction, and the thumb is independent in one direction. The four fingers are divided into four joints: the index finger, middle finger, ring finger, and pinky finger, all of which have three joints, and the thumb has two. The five fingers naturally bend toward the heart (palm), which is the natural shape of our hand. Therefore, the fingers often

have consistency in their movements. It cannot do a natural movement with some joints in a convex shape and some in a concave shape. Even if the thumb is oriented differently, it does not work alone without any relation to the other four fingers. For example, when making a fist with the four fingers in the center, it has a centripetal force in a different direction and should appear stronger. In the outward direction, there is a reverse force in a different direction from the four fingers, and the Tremolo is the use of this reverse force. The fan-shaped hand requires the Tremolo to touch the strings in a straight sequence, like a fan opening, to achieve the concentration of the touching points, but it gives up the most important aspect of structure and method. The first-hand shape has a strong structural framework in the first place. A simple test is to squeeze the fingers straight, and the fingers bent (fist), and it is obvious that the latter is so powerful. Therefore, the convex shape of the five finger joints under the fist structure strengthens the whole structure and provides a solid structural framework for the Tremolo force. Among them, the shape of the thumb is the key to the entire fist structure. If the two joints of the thumb are convex, the joints of the other four fingers are also convex, which makes full use of the consistency of the five fingers in movement.

Moreover, the convex shape of the thumb joint can be felt on the four fingers, especially the ring finger and the little finger (i.e., they can hook each other), which also makes full use of the reaction force of the thumb on the other four fingers. Therefore, the sequential touch of the four fingers in the fist structure becomes easier to control. In contrast, the fan-shaped structure has a concave shape of the two joints of the thumb, and the entire brace of the hand shape is pinched toward the center.

At the same time, the concave thumb joint of the fan-shaped structure causes the joints of the middle and little fingers to be flatter, and the force is concentrated on the large joints of the fingers. Thus, on the one hand, the instability of the hand-shaped knot reduces the reverse force of the thumb, and the movement of the other fingers continues to lack strong support for the whole system. On the other hand, the fingers are straightened, and the vitality of the large, middle, and small joints is lost, especially the vitality of the middle and small joints, which also reduces the control of the angle of each finger touching the string, making the sound rough. Therefore, in terms of the overall structure, the fist-shaped "555" is much superior to the fan-shaped Tremolo. Fist-shaped Tremolo is nearly 50 years. As the volume of pipa continues to expand, the techniques of increasing richness, so the pipa playing volume, tone, and other aspects of higher requirements, after the pipa players continue to explore the results. At the same time, the establishment of the fist shape, Tremolo, is also a combination of other related aspects of the formation. For example, in the thumb prosthetic nail, more than one piece of the upper left corner creates the fist shape Tremolo to provide the necessary conditions. Imagine, without this piece, the two joints of the thumb will not be convex, which will inevitably cause a chain reaction of the other four fingers, and the whole fist shape Tremolo structure will not be established. Once the Tremolo structure is established, it provides a solid foundation for creating a series of new techniques. For example, the harmonic polyphonic structure, which has led to the use of Tremolo in many ways, is arguably one of the most significant features of modern pipa music. The thumb can play the melody while the four fingers interweave harmonically, or conversely, the four fingers can play the melody. In contrast, the thumb accompanies the low rhythmic patterns based on the fist-shaped Tremolo structure.

3）Volume control of Tremolo

After having a solid structure of Tremolo, it depends on how to make the wheel. As we know, human fingers are of different lengths and thicknesses, and the direction of the thumb is independent. Therefore, making each finger pluck the string with a balanced power and a consistent sound time interval is difficult. Tremolo is one of the most difficult techniques on any Chinese or Western instrument. The thumb and index finger are more independent and stronger, while the other three are less independent and weaker. For example, if we bend the little finger of the right hand, the famous finger is often bent with it, which means that their tendons are often linked together, and the practice is to separate them independently. Therefore, the main purpose of practicing Tremolo is to strengthen the middle finger, ring finger, and little finger so they can make more noise. The strength of the index finger and the thumb are balanced, and the strength includes the ability to control the timing because timing control without strength is false and meaningless. Therefore, the force method of Tremolo is the same as that of playing peach, which still maintains the principle of making the large joints lose and the middle and small joints active. Of course, the specific practice is different from other techniques. Specifically, the unified force of each finger's large, middle, and small joints is emphasized based on the entire boxing structure framework. At the same time, the wrist and hip are generally unrelated to Tremolo. In the overall idea of Tremolo, attention should be paid to highlighting the large joints to release the force to make loose, the middle and small joints to collect to make life and control the tone. This way, the whole hand is up, not only the force evenly special face and volume full of clear tone. That is to say, as if the basic requirements of playing the piano, the whole Yu stands up. Secondly, we should emphasize the strength and control ability as a whole. Because in the use of the five fingers as a whole, the force of each finger is intrinsically linked. Even for half Tremolo or four fingers Tremolo, the presence of the thumb is not superfluous. One problem that arises here is that the thumb's large and middle joints do not bulge, which is a common problem when we start practicing Tremolo.

4) The angle of touch of each finger

The correct hand shape provides a good touch angle for each finger, which is crucial for the tone of the finger wheel. Just like the angle of touching the strings, if the fingers touch the strings at 90 degrees vertically, although the sound is fuller, it lacks control over the tone, which is the drawback of using large joints in the fan-shaped Tremolo. On the other hand, the fist-shaped Tremolo has a bent finger that is less than 90 degrees and touches the strings at an angle of about 60 degrees or even 45 degrees, so the tone is significantly improved, and the sound is round and soft. Especially when playing lightly, the whole hand can be further contracted and "balled up," which is more suitable for soft tone when playing lightly, in order to solve the problem of losing control of the tone that is most likely to arise when playing lightly with the fan-shaped Tremolo. In addition, from the thumb side, the change in the angle of touch plays a key role in equalizing the power of the whole wheel. The bending of the two joints causes an angle of about 45 degrees to the strings, which significantly reduces the volume of the thumb. As we know, the main symptom of uneven Tremolo is often the excessive volume of the thumb. Cause the whole Tremolo to the number 5-based cycle of repetition, that is, the five fingers of the human hand in playing the Tremolo when each circle of the cycle of traces. The proportionality of Tremolo is to break this cyclical pattern so that Tremolo can achieve the purpose of roundness and proportionality based on the balanced power of the five fingers. Secondly, the middle joint of the thumb is rich in control of the

string with the assistance of the big joint.

On the contrary, the thumb of the fan-shaped Tremolo needs to include this. In addition, the thumb's touch on the strings is improved while the volume is controlled. In addition, regarding the issue of uniformity in the angle of touch, it must also be noted that the base of the fan-shaped Tremolo is based on the fact that the thumb and the other four fingers should be as close to each other as possible. However, in this way, the entire Tremolo is abandoned. However, this gives up the good structure of the whole Tremolo.

In contrast, the fist Tremolo prefers to give up the proximity of the five fingers to the touch points, thus prioritizing a good Tremolo structure. The difference between the touch points of the thumb and the other four fingers can be very small, and a good structure of the Tremolo is more important. The difference between the thumb and the pinky finger is about a fist's distance (less than a fist), but the softer and fuzzier tone of the thumb, which plays on the upper part of the string, reduces the volume of the thumb. In this way, the fist-shaped Tremolo not only does not cause a difference in tone between the thumb and the other four fingers but also makes the whole Tremolo sound more uniform and harmonious under the premise that the volume of the thumb can be easily reduced. The improvement of the volume and tone of the thumb provides a guarantee for the roundness and proportion of the whole Tremolo.

5) Speed of Tremolo

Finally, there is a need to talk about the speed of Tremolo.

a. The so-called speed is the frequency of the interval of each finger touching the strings in the sequence of Tremolo, which is commonly known as the speed of finger rotation. Generally speaking, the speed of Tremolo is tighter than the usual string and drum instruments. Beyond this speed or less than this speed, the effect of Tremolo is affected. The speed is too high, and the dots need to be clearer, especially when playing weakly; the rate is too low, the dots need to be more coherent, and the sound is easily stiff, especially when playing strongly. However, the problem is more complex, with the following points. Each player's speed is not identical but often differs slightly, so the situation is not the same.

b. Speed and strength are often related. For example, speed is higher than effort in the same conditions of strength. Another example is that an increase in speed often accompanies strength requirements, and strength requirements are often accompanied by a decrease in speed, which is a natural phenomenon. However, speed and strength should be distinct. Beginners are often strong when the rate is significantly increased. When the strength is weak, the speed is significantly reduced, which is not right. Moderate cannot be too much.

c. Speed and strength, the relationship between touching parts: strong, slightly fast, touching point slightly down, full tone, are linked together; weak, slightly slow, touching point slightly up, soft tone, are linked together, in this regard the three should be well coordinated.

d. In the music, sometimes the melody and the wheel's speed will have certain contradictions, that is, the intersection of tone and tone and the length of the rhythm time. Tremolo will feel that sometimes it needs to be faster, and sometimes it needs to be slower, according to the Tremolo of each person. The basic speed feeling is also different.

e. Between the player and the instrument used, it also involves the playing strength and the force of the specific instrument string. If the force on the strings is less than the player's regular force, the touch point can be moved down slightly, and vice versa. This is true not only for Tremolo but also for other techniques.

In short, there is a problem with using the basic speed in terms of strength, speed, up and down of the touch point, and brightness and softness of the tone, but it can be changed, and the key lies in the basic control of the player and the ability to adapt to the specific use (Zhuang, 2018 : 93-97).

Gravity in Pipa Performance

Gravity" is at work in all technical movements, and it is a connotation that is not easily perceived in appearance. When we pluck the strings with the finger, wrist, and elbow joints, the force on the strings is different at the same speed. One of the important reasons for this is the different quality of these three parts. Technical movements, of course, also require the coordination of the whole-body muscles and other conditions, which will not be analyzed here. If you are playing the piano, the movement is mainly vertical, and the feeling of gravity is easier to obtain. However, horizontal movement is its main direction when playing the pipa. Therefore, it is more difficult to feel the gravity effect. For this reason, it is necessary to study the method to obtain this feeling.

Use a Tremolo drill as an introduction. While putting your fingers on the strings from top to bottom with your wrist and elbow in a slightly propagandized manner, you pluck the strings with your fingers in succession. The elbow, shoulder, and wrist feel naturally relaxed, and the "main character" of the action is the ----- finger, which feels relaxed and flexible when plucking the string. The sound quality of each "point" is pure and free of noise. This phenomenon shows that gravity is at play in action and that the power is used properly. This is what we usually call "the power is very clear." Please remember this feeling! Next, the wrist and elbow, in cooperation with the fingers, do the same repetition as before, but this time with a concatenation of ten "dots" (although it is two full Tremolo, it should be understood as ten "dots "). It would be best if you got the same feeling as when you did a full Tremolo (five "dots"). At this time, the feedback of the action of each finger plucking successively tells us that there is a feeling as if "the action is placed on the string and does not leave the string as a whole," and the ten points seem to be connected by an invisible thread. You can use this feeling to practice long rounds boldly if you have this feeling. Suppose the sensation of the body and music during the long Tremolo is the same as the sensation and tone during the ten points. In that case, it means that the sensation of gravity is obtained from the gravitational effect that has occurred.

If Tremolo is an intensive connection of "dots," then playing is also an intensive connection of "dots." Hence, the Tremolo, the plucking action of the fingers, which is obtained in Tremolo, is the result of the arm putting the fingers on the strings, and the fingers are plucked intensively as if they had never left the strings. This feeling of gravity applies to the other techniques of "roll" and Tremolo, as well as to all the techniques of "dot" intensive connection (Wang, 1985).

Practicing the Tremolo

For players who do not know how to play at all, you can practice Tremolo on the first string and practice the posture of the right hand, the order and method of movement of each finger at a slow speed: you can clench each finger of the right hand into a fist, but do not squeeze it hard, with the index finger, middle finger, ring finger and little finger floating at the root of the palm, and then the index finger, middle finger, ring finger Then the index finger, middle finger, ring finger, and pinky finger float against the root of the palm, then the index finger, middle finger, ring finger, and pinky finger play the strings in turn (pay attention to the angle of the cross, the direction of movement, force, and relaxation), and then touch the strings with the thumb. In this method of "Wheel Finger," it is best to practice the movement of the finger joints to be very flexible, especially the force and relaxation of the second joint of the index finger, middle finger, ring finger, and little finger, as well as the flexibility of the movement. When the five fingers can turn continuously, then practice methods to correct the different pronunciations and speeds of each finger caused by the physiology of the hand.

The thumb has two joints, while the index finger, middle finger, ring finger, and little finger have three. The thumb is thick and short and must move to the right when playing, while the index finger, middle finger, ring finger, and little finger are thick and thin, long and short, and move to the left. The inter-palmar gap between the thumb and the index finger is the largest, which is extremely beneficial to the thumb, especially the index finger when it is in motion. The middle finger is the longest and strongest, but the gap between the middle finger and the index finger is the smallest and highest, which makes it less convenient for the strong middle finger to move; the ring finger is also long, but it is also less sensitive to move because the gap between the ring finger and the middle finger is smaller and higher; the pinky is the shortest and thinnest, but the gap between the pinky and the ring finger is wider than that between the index finger, middle finger, and the ring finger, which makes it more convenient to move. It is more convenient, but due to the short and small and affects the strength. After we understand the different physiological conditions of each finger, and then from the performance of Tremolo, the most likely to produce the disadvantages to deduce, in the slow speed practice Tremolo, in terms of force and volume control, should make the index finger articulation volume is weaker, the middle finger The volume of pronunciation of the middle finger is stronger, the volume of pronunciation of the ring finger and the little finger is the strongest, and the volume of pronunciation of the thumb is the weakest. This method of controlling each finger's different strengths and weaknesses in slow practice can correct the physiologically strong fingers to make them weaker and the weak ones to make them stronger. The ultimate goal is to make the five fingers have similar pronunciation.

In terms of volume, you should be able to practice not only the Tremolo with strong volume but also the Tremolo with very weak volume. In terms of tone, you should practice not only the solid tone of “Wheel Finger” but also the crisp tone of Tremolo and soft tone of Tremolo. In terms of speed, you should practice not only the fast Tremolo but also the medium-speed Tremolo and the slow Tremolo. In terms of strings, you can play Tremolo on one, two, three, and four strings, and you can achieve the respective sound effect. Only when you can do so can you be considered to have learned the basic skills of Tremolo comprehensively and well. Generally, when you hear that you can play Tremolo evenly, completely, and fully with one volume and one speed on one string, you think you have practiced Tremolo well, which is not comprehensive and not enough because you do not know the comprehensive knowledge of

Tremolo. In each process of practicing Tremolo, you should always listen to the pronunciation effect of each finger of the wheel. If you find that the sound effect does not match the required sound effect (how strong or weak the volume is, how long the timing of each finger is), you should study the cause of the problem and find the reason before correcting it. If you can listen to the sound effect as a premise, you can take fewer detours and spend less time practicing the various techniques of Tremolo well (Lin, 2002 : 86).

Pipa Tremolo Teaching Method

The unique, expressive function of Tremolo, combined with other fingering techniques, makes it possible to play the pipa's right hand with the intense effect of Tremolo and the peaceful and relaxing Tremolo. These techniques are harmonious and rich in contrast to the intricate interplay, making the pipa more colorful and varied. We know that in pipa performance is to a finger hits a string, and the occurrence of a point of sound as the most basic unit, due to the loss of energy and a variety of resistance, the sound of this a point quickly weakens the human ear to the sound of this a point of feeling, but also shorter. In the musical performance, when it is required to extend this short sound, it is necessary to use the technique of Tremolo to connect many points into a line, which plays the role of prolonging and coherent sound. The Tremolo does not rely on the abrasion of particles on the string by the horse's tail, as in the case of bowed string instruments, but uses the five fingers to touch the particles of the string in turn to form a continuous, unbroken long sound. Therefore, the lightness of the five fingers of the right hand touching the string particles, the undulation, the angle of touching the string, and the depth of touching the string are important prerequisites to determine the quality of the Tremolo. Therefore, the first thing you need to do is to have a good grasp of the Tremolo hand shape.

The Tremolo, now commonly used, is based on developing two traditional methods. The most common is the "egg grip," which is like holding an egg in your hand, with the small end facing down, the large end facing up, and the hand holding the hollow into a cone. It is characterized by: small joints, large joints that can be adjusted to use, the point is neither too dense nor too sparse, but also clear, solid and not hard, thick and resonant tone, bright and round, and sound more comfortable. It is also easy to transition to the "doughnut" and "fan" shapes. When the performance of a piece requires the finer and denser Tremolo dots, the "egg grip" can quickly transition to the "doughnut" shape.

After understanding the shape and characteristics of the Tremolo hand, you must strengthen your training in how to master it. The five fingers of a person are different from each other in terms of shape. Generally speaking, the index finger strength, flexibility, control ability, and other functional qualities are better due to the relationship of daily use. The middle finger is slightly weaker than the index finger. The thumb is slightly weaker than the middle finger, and the pinky and ring fingers are the weakest. Therefore, according to the differences between the fingers, it is necessary to select some single-finger training similar to the following in addition to the decomposition exercises:

a) Middle finger, ring finger, pinky finger to do "three fingers Wheel Finger" exercises: middle finger ring finger pinky finger middle finger ring finger pinky finger .....
b) Ring finger, pinky finger, and thumb do the "Three Fingers Tremolo " exercise: ring finger pinky finger thumb ring finger pinky finger thumb .....
c) "Three fingers Tremolo " exercise for index, middle and ring fingers: index middle

finger ring finger index middle finger ring finger ring finger .....

d) "Three Tremolo " exercise with index finger, middle finger and thumb: index finger middle finger thumb index finger middle finger thumb .....

e) Tremolo exercises for triplets: index middle finger ring finger pinky thumb index finger middle finger ring finger pinky finger .....

The above five finger-wheel decomposition exercises can be performed on empty strings or in conjunction with the left-hand fingering sequence. In addition to the general requirements of “Wheel Finger,” the first note of each beat should be emphasized so that all fingers of the right hand can play the accented notes in sequence. In addition to the first note of each beat, the strength and speed of each finger striking the string should be balanced and even. The exercises can be performed in two stages.

First. Slow Practice Stage: This stage of training requires the correct use of force and the full stretching of the strings with each finger. The speed of each stroke should be fast, while the interval between finger strikes should be slowed down. Here, the instant speed of finger striking is key because, from the mechanical point of view, the speed of finger striking is proportional to the force on the strings. The faster the speed, the greater the force, and vice versa, the smaller the force, while the proper slowing down of the interval of each finger striking facilitates the training of the independent movement and control ability of the weak fingers, such as the ring finger and the little finger, so that the sound of each finger striking is full and solid and pure. Clarity.

The second rapid training stage: In this stage, the string striking action of each finger should be appropriately converged to speed up and reduce the gap between the strings struck by each finger in order to more effectively mobilize, strengthen and exercise the strength and flexibility of the strings struck by the fingers. At the same time, the subjective consciousness should emphasize that the striking of the five fingers should produce an axial force so that the articulation of each finger is more even and tight.

Through repeated training in the fast and slow stages, it has a positive effect on improving and strengthening the strength, speed, and flexibility of the other fingers, such as the ring and little fingers, so that the five fingers of the right hand can do fast and slow, strong and weak, and make the strings of the five fingers of the right hand, which are uneven and have their characteristics, balanced from the unbalanced strength and the unbalanced articulation of the fingers. The students in the pipa teaching have to learn to play the pipa slowly, slowly, strongly, and weakly. In the early stages of pipa teaching, students are less perceptive and less able to control their movements. They still need to be able to understand the entire process of finger-wheel movements, and they need to be more accurate in detecting errors. Errors such as too tight or loose hand shape, busy and uncoordinated movements, unstable striking points or directions, and uneven finger force often occur (Sun, 1999 : 145-147).

Conclusion

Pipa Tremolo hand structure is not only related to the natural, stable, beautiful, and comfortable appearance of the Tremolo but also involves the entire Tremolo force way, method, volume, and angle of contact with the strings. And volume, the angle of contact with the strings and tone, and a series of internal technical factors. The inner things are always expressed through certain shapes. In a larger sense, it is the relationship between content and form; in a smaller sense, it is the dialectical unity between the surface and the interior. So, in turn, we can see by the external structure of the player's hand whether he is using the right

way of playing, whether he can achieve a certain volume, and whether he has a beautiful tone. These are the basic and essential technical requirements for playing. From the pipa Tremolo formation, the training and mastery process of performance techniques and teaching methods is a unified, organic, developmental whole. Their relationship is interconnected, constrained, and mutually reinforcing transformation. As the art of pipa playing and teaching continues to be studied in depth, the teaching and performance level of the pipa Tremolo. the technique will also be continuously improved and perfected.

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