148 - EFFECT OF BILATERAL TRANSFERENCE OF LEARNING IN THE HANDLING OF LIEN TIEN CHUAN KUNG FU STYLE PRAYING MANTIS SEVEN STARS.

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INTRODUCTION

The motor learning is a field of research that aims to study the mechanisms and processes underlying the acquisition of motor skills along with two other research fields, which is a motor control and other motor development that is an area called integrated motor behavior. As a phenomenon, motor learning is relatively long-lasting changes in the ability to perform a skill. Magill (2001) states that the motor learning refers to the change in the execution of a task, that is, the individual learns a specific task, and the practice will increase the speed of execution increasing performance with less power and greater perfection. The Kung Fu (translation of the term: Time and Skills, or Hard Work) is a Chinese martial art that can be considered as one of the struggles the world's oldest dated about 3,500 years, a very complex identity (AMORIN, 2004).

For many years, China has suffered from wars and internal borders, and in this context the Chinese had to develop a technique of self defense, from which arose the Tai Chi Chuan that comes slow, defensive techniques highly offensive (DESPEUX, 1981). Based on these techniques arose Kung Fu, but with more speed, strong moves, indefensible and fatal blows to defeat the opponent without being hit. For this performance, the Kung Fu requires your diligent student with a practical requirement of physical discipline of behavior and mental agility and speed involved in the responses of the stimuli during a presentation or a fight (AMORIN, 2004).

Within these terms of "agility and speed in the responses of stimuli," research on learning and motor control in the basic motion of an articulated weapon of Kung Fu and for that, it is impossible to get a lot of speed and accuracy without first practicing this skill several times.

Manufacturers of household consumption (such as households) do not consider this small change and develop many products only for forcing left-handed whipping with the contralateral limb. Como exemplo desses utensílios temos o abridor de garrafas, tesouras, facas entre outros.

Pellegrini (2000) gives the levels of learning, namely: novice, intermediate and advanced giving an idea of what changes are sequential making it clear that the organism changes its behavior according to what has been learned, ie, increases the ability upon the existing central nervous system, specifically in the cortex.

In the learning process, it is common for beginners seeking a member who they feel most comfortable - when given a choice - while the other member remains unknown until it is necessary to use even in challenging circumstances (Vasconcelos, 2006). The whole learning process is automatically transferred to the contralateral limb to the slick, however, would be very important teaching for both limbs, as if there is the practice with the non-preferred, it can lose that learning (TEIXEIRA, 2006) . For this learning in both limbs, Magill (2000) named as bilateral transfer of learning, a phenomenon which we name this work of TBA, and this theme has been little studied in the area of motor control (especially in Kung Fu) that is of great importance for teachers and coaches as through bilateral training, you can achieve optimum performance of their students (Vasconcelos, 2006).

OBJECTIVES

Investigate the effect of Bilateral Transfer of Learning in the handling of Lien Tien Chuan Kung Fu style Praying Mantis seven stars.

METHODOLOGY

In order to find a way out for this complex area of motor learning, we surveyed individuals who have never practiced Kung Fu and any martial art that has the handling of arms and articulated such subjects were divided into two groups to learn how to handle a weapon known in articulated Kung Fu and Lien Tien Chuan.

With this handling, we see which group had better performance in the TBA and one group learned the task with the non-preferred, while the other group member preferred. After stabilization of performance, ie, when the group arrived at the "advanced" stage for Pellegrini (2000), was performed the task with the contralateral limb in which we could see which way is more effective in the direction of the TBA, if the member preferred for non-preferred or vice versa.

POPULATION AND SAMPLE

The study was conducted with 10 participants, physically active aged between 20 and 30 year old male who were divided into two groups of 05 people (S1 to S5) came to be known as NP for the group that used the member is a favorite learning task, and 05 people (S1 to S5) called P for the group using the member's preferred learning task.

EXPERIMENTAL PROCEDURE

Was availing a questionnaire to assess the subjects such as name, age, level of physical fitness and if you have had contact with articulated arms or not.

Data collection consisted of handling the weapon with an upper limb in which the subject learned only one skill so that there was too much information. Was conducted individually and evaluated by three experts from Kung Fu, who taught the skill of verbal and visual statements having no guidelines for its development. The subject had ten sessions with a time of 2 minutes each, training only the next collection that were taken every two days. The weapon used in the study was a professional Lien Tien Chuan made of wood, mark AGS weighing approximately 400 grams, and bearings in the joints of the chain with wood. The training time was determined after a pilot study with two human volunteers. At first it was given five minutes of collection, but without success because muculatura involving fatigue and with it the skill performance fell very destabilizing move. After three days of the pilot study, we determined the correct time to learn the skill without either muscle fatigue of the subjects and thus did not interfere with our studies.

The subjects were filmed in front of a camera Sony model DSC-S730, which after ten collections specialists Kung Fu

watched the video together with their respective forms evaluating the performance of each.

DATA COLLECTION

Data were collected in the research laboratory of the University campus Tamboré Mackenzie, and a club in the city of São Paulo located in the Jardim Sao Paulo on dates and times determined.

TREATMENT OF DATA

The criterion for assessing the performance of the subjects was determined by experts before the collections of data where one expert has 35 years of Kung Fu and used this technique for handling in your facility. The same technique was used for handling this research.

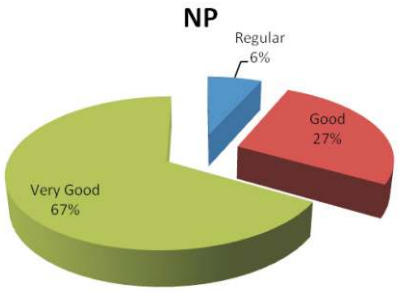
To evaluate the performance development, was made a spreadsheet where the levels were named as very good to excellent performance of the task, GOOD for satisfactory performance of the task or set to a unsatisfactory performance of the task, and these data were tabulated in the form graphics for better analysis and conclusion of the performance of the subjects.

RESULTS

The analysis of the TBA NP group had a gradual increase in the performance of subjects in the course of the tests, which showed positive results in the transfer of the non preferred choice for the member.

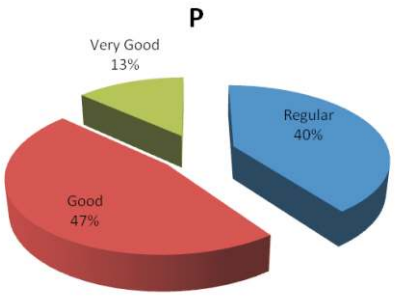
Analyzing the chart below, one can see that the observers rated the performance of subjects with more notes "very good" than "regular", which indicates that the TBA was effectively to most members of the group.

Figure 01 - Results of the performance of the NP



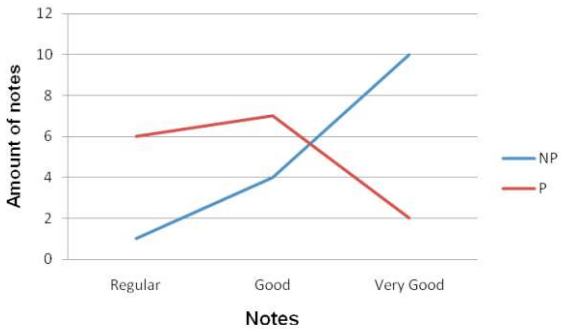
have a good symmetry in the motor patterns in both states involved in the ability and after considering the graphics we see that the performance of this group was opposite to the previous, and had results with more notes "regular" than "very good". Below is the graph with a parameter of the group P:

Figure 02 - Result of the performance of the group P



Analyzing the performance of groups, rather than in individual subjects, we observed the difference in scores between the two and made a correlation with the groups:

Figure 03 - Correlation between the groups



It is remarkable that the group P had more notes "regular" than "very good" indicating that when the subjects of this group performed the movement with the contralateral limb to the learned, the performance was not as good as the original

member, indicating a TBA than the NP group who started learning with the non-preferred resulting in a higher performance with the contralateral limb.

DISCUSSION AND CONCLUSION

The goal of these studies was to analyze the effect of TBA on a skill of Kung Fu, where the results indicated that the subjects in the NP group showed a gradual improvement in performance during the tests and the TBA was effectively ensuring the symmetry of the motor pattern the movements of Lien Tien Chuan in both upper limbs (right and left), while those in group P had the same performance and his movements were asymmetric comparing the results of the TBA in both arms of each subject. Although the task was performed cyclical, were clearly the high degree of difficulty in performing the same subject by, for, according to Magill (2000) believes that the brain are different tasks using a number of muscle fibers, organization of time and space different from one member to the contralateral and also taking into account the degree of difficulty of handling a weapon of wood split and linked by a chain. Within the study of motor control, it is an unstable environment, making it more difficult to learn and therefore the stability of movement with the contralateral limb (MAGILL, 2000).

For that reason, joint analysis of two groups allowed us to conclude that the TBA was observed in all subjects, but this skill style of Kung Fu Praying Mantis seven stars, the NP group stood out by giving banks the studies of Conroy (2001) argues that learning should be first with the non-preferred whenever a TBA effective, unlike studies Heng (2000) which concluded that the TBA is the member preferred to not preferred.

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EFFECT OF BILATERAL TRANSFERENCE OF LEARNING IN THE HANDLING OF LIEN TIEN CHUAN KUNG FU STYLE PRAYING MANTIS SEVEN STARS.

The present study it had as objective to verify the effect of the Bilateral Transference of Learning in the handling of Lien Tien Chuan of Kung Fu style Praise-the-God seven stars. The Bilateral Transference of Aprendizagem (TBA) if of when a learned ability is transferred to the contralateral member. Lien Tien Chuan one is about a weapon articulated used old in combats for the orientals to attack in vital points, to apply keys in the joints and strangulations, but with the disadvantage of the instability of the weapon due its joint. For such research, we count on 10 citizens of the masculine sex with age enters 20 - 30 years physically active that had been divided in two groups of five people each. The groups had been nominated as practical group of with member not preferred (NP) and group for practical with the preferred member (p). The tests had been carried through in the laboratory of research of a University of Barueri/SP and in a Club of the City hall of São Paulo and each citizen of the group an only time for practical had right of 10 tests for the learning of the manuscript having with the contralateral member that was after the ten tests. After this, three observers had analyzed together the videos with performance of each citizen transcribing the data for a spread sheet where the results had pointed one better TBA with respect to group NP of what of group P.

KEYWORDS: Bilateral Transference of Learning - Martial Arts - Kung Fu

EFECTO DE LA TRANSFERENCIA DE BILATERAL DE APRENDIZAJE EN EL MANEJO DE LIEN TIEN CHUAN KUNG FU ESTILO ALABADO SEA DIOS SIETE ESTRELLAS.

El presente estudio tuvo como objetivo evaluar el efecto de la Transferencia Bilateral de Aprendizaje en el manejo de Lien Tien Chuan estilo de Kung Fu Mantis siete estrellas. La Transferencia Bilateral de Aprendizaje (TBA) se produce cuando una habilidad que se aprende se transfiere a la extremidad contra lateral. Lien Tien Chuan es un arma articulado utilizada anteriormente en el combate por los orientales para golpear los puntos vitales, aplicar las llaves en las articulaciones y estrangulamientos, pero con el inconveniente de la inestabilidad del arma debido a su articulación. Para esta investigación, contamos con 10 sujetos varones con edades comprendidas entre 20 - 30 años, físicamente activos, que se dividieron en dos grupos de cinco personas cada uno. Los grupos fueron nombrados como miembros del grupo con la práctica de la extremidad sin preferencia (SP) y la práctica del grupo con la extremidad preferida (P). Las pruebas se realizaron en el laboratorio de investigación de una Universidad en la ciudad de Barueri (San Pablo/Brasil) y un Club de la Municipalidad de San Pablo (Brasil). Cada sujeto del grupo tuvo derecho a 10 pruebas para el aprendizaje del arma y una sola vez a la práctica con la extremidad contra lateral, que sucedió después de las diez pruebas. Después de eso, tres observadores revisaran los videos junto con el rendimiento de cada sujeto transcribiendo los datos en una hoja de cálculo y los resultados mostraron una mejor transferencia al

grupo SP que en el grupo P.

PALABRAS-CLAVE: Transferencia Bilateral de Aprendizaje, Artes Marciales, Kung Fu

EFFET DU TRANSFERT DES BILATÉRALES APPRENTISSAGE DANS LA MANIPULATION DES LIEN TIEN CHUAN KUNG FU STYLE SEVEN STARS PRAYING MANTIS.

Cette étude visait à évaluer l'effet du transfert bilatéral de l'apprentissage dans la manipulação de rétention Lien Tien Chuan estilo de Kung Fu, étoiles Praying Mantis setembro Bilatéral Transfert de l'apprentissage (TBA) se une compétence est produit quand acquise cessionário controlateral au membre. Lien Tien Chuan arme c'est une articulée autrefois utilisé par les Orientaux au combat pour les frapper vitaux pontos, joints appliquer les clés goulets et les d'étranglement, mais avec l'inconvénient de l'instabilité de l'arme à feu en raison de joints filho. Pour cette recherche, nous avons 10 sujets de sexe masculin âgés entre 20 - 30 ans physiquement actifs ont été répartis en deux groupes de cinq personnes chacune. Les groupes ont été nommés comme membre du groupe de préférence en aucune pratique (NP) et la pratique de groupe avec le député préféré (P). Essais Les ont été effectués dans le laboratoire de recherche de l'Université de Barueri / SP, et un club de la municipalité de São Paulo et à chaque groupe de sujets était en droit de 10 testes pour l'apprentissage de gestion avec une seule fois à la pratique avec le membre controlatéral C'était après la dizaine d'épreuves. Après cela, trois observateurs passé en revue les vidéos associées à la performance de chaque sujet transcrire les données dans un tableur où les résultats ont montré un TBA au meilleur groupe NP que dans le groupe P.

MOTS-CLÉS: Transfert bilatéral de l'Apprentissage - Arts martiaux - Kung Fu

EFECTO DE LA TRANSFERENCIA DE BILATERAL DE APRENDIZAJE EN EL MANEJO DE LIEN TIEN CHUAN KUNG FU ESTILO ALABADO SEA DIOS SIETE ESTRELLAS.

El presente estudio tuvo como objetivo evaluar el efecto de la Transferencia Bilateral de Aprendizaje en el manejo de Lien Tien Chuan estilo de Kung Fu Mantis siete estrellas. La Transferencia Bilateral de Aprendizaje (TBA) se produce cuando una habilidad que se aprende se transfiere a la extremidad contra lateral. Lien Tien Chuan es un arma articulado utilizada anteriormente en el combate por los orientales para golpear los puntos vitales, aplicar las llaves en las articulaciones y estrangulamientos, pero con el inconveniente de la inestabilidad del arma debido a su articulación. Para esta investigación, contamos con 10 sujetos varones con edades comprendidas entre 20 - 30 años, físicamente activos, que se dividieron en dos grupos de cinco personas cada uno. Los grupos fueron nombrados como miembros del grupo con la práctica de la extremidad sin preferencia (SP) y la práctica del grupo con la extremidad preferida (P). Las pruebas se realizaron en el laboratorio de investigación de una Universidad en la ciudad de Barueri (San Pablo/Brasil) y un Club de la Municipalidad de San Pablo (Brasil). Cada sujeto del grupo tuvo derecho a 10 pruebas para el aprendizaje del arma y una sola vez a la práctica con la extremidad contra lateral, que sucedió después de las diez pruebas. Después de eso, tres observadores revisaran los videos junto con el rendimiento de cada sujeto transcribiendo los datos en una hoja de cálculo y los resultados mostraron una mejor transferencia al grupo SP que en el grupo P.

PALABRAS-CLAVE: Transferencia Bilateral de Aprendizaje, Artes Marciales, Kung Fu

EFEITO DA TRANSFERÊNCIA BILATERAL DE APRENDIZAGEM NO MANUSEIO DO LIEN TIEN CHUAN DO KUNG FU ESTILO LOUVA-A-DEUS SETE ESTRELAS.

RESUMO

O presente estudo teve como objetivo verificar o efeito da Transferência Bilateral de Aprendizagem no manuseio do Lien Tien Chuan do Kung Fu estilo Louva-a-Deus sete estrelas. A Transferência Bilateral de Aprendizagem (TBA) se dá quando uma habilidade aprendida é transferida para o membro contralateral. Lien Tien Chuan trata-se de uma arma articulada usada antigamente em combates pelos orientais para atacar em pontos vitais, aplicar chaves nas articulações e estrangulamentos, mas com a desvantagem da instabilidade da arma devido a sua articulação. Para tal pesquisa, contamos com 10 sujeitos do sexo masculino com idade entre 20 – 30 anos fisicamente ativos que foram divididos em dois grupos de cinco pessoas cada. Os grupos foram nomeados como grupo de prática com membro não preferido (NP) e grupo para prática com o membro preferido (P). Os testes foram realizados no laboratório de pesquisas de uma Universidade de Barueri/SP e em um Clube da Prefeitura de São Paulo e cada sujeito do grupo teve direito de 10 testes para a aprendizagem do manuseio tendo uma única vez para prática com o membro contralateral que foi depois dos dez testes. Após isso, três observadores analisaram juntos os videos com o desempenho de cada sujeito transcrevendo os dados para uma planilha onde os resultados apontaram uma melhor TBA para o grupo NP do que do grupo P.

PALAVRAS CHAVE: Transferência Bilateral de Aprendizagem - Artes Marciais - Kung Fu

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