

RESPONSE TIME AND JAB FORCE PUNCH OF THAI FEMALE AMATEUR BOXERS: A PRELIMINARY STUDY

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INTRODUCTION: The jab an important punch in amateur boxing used to interrupt an opponent's rhythm and to score points. To jab successfully, a boxer must respond quickly and hit a target with sufficiently high force. Luangtrakul et al. (2002) investigated response time alone during jab training but not force. Moreover, female boxers have not been studied. Understanding response time and jab force can be used to train boxers. The purpose of this study was to examine the effects of target choice response times and forces of the jab punch of female Thai national amateur boxers.

METHODS: Eight female Thai amateur boxers volunteered in the study. Participants jabbed as quickly as they could at a target with their lead hand when the light came on. Six different target positions were mounted on the same plane which consisted of the head, the chest, the right and left shoulders and lower abdomens. The orders of the targets were randomly assigned. Each target was connected to a uni-axial load cell to measure force and response time. Three trials were run and averaged. A repeated measure ANOVA and post hoc test were performed ($p < .05$).

RESULTS: The response time and force of jab for 6 targets are shown in Fig. 1 and 2.

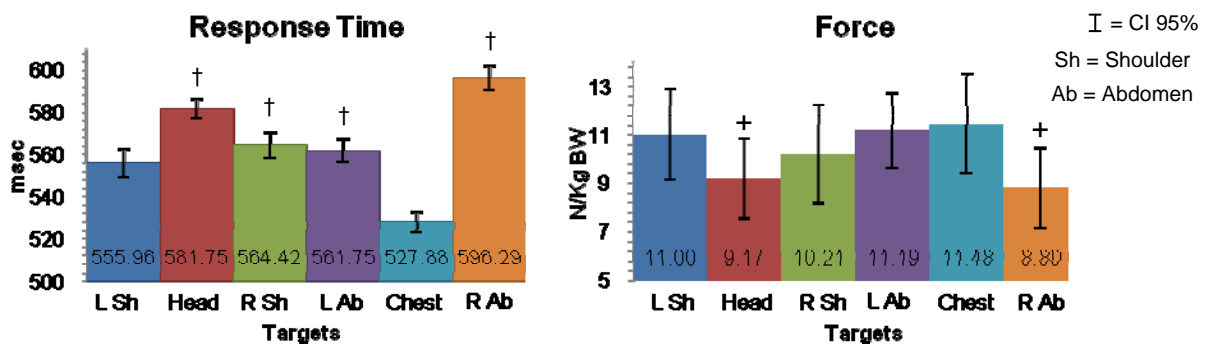


Fig.1 Response time of Jab († $p < .05$)

Fig.2 Jab Force (+ $p < .05$)

DISCUSSION: The response time and jab forces were fastest and highest at the chest. This may be because the jab distance to the chest is the shortest and is directly aligned with the direction of jab. Moreover, the force to this target is almost perpendicular to the plane of load cell.

CONCLUSION: The study showed that the fastest response time and the highest force of Thai female boxers occurred with the body target. This may suggest that coaches focus on the targets that have poor response times and low force when training boxers.

REFERENCES:

Luangtrakul, Keawsri & Saksitwiwattana. (2002). The creation of a prototype for measuring and training response time. Sports authority of Thailand.