



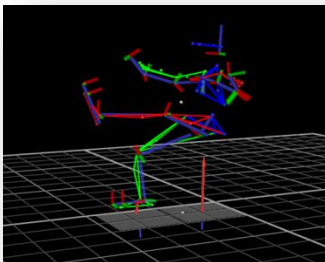
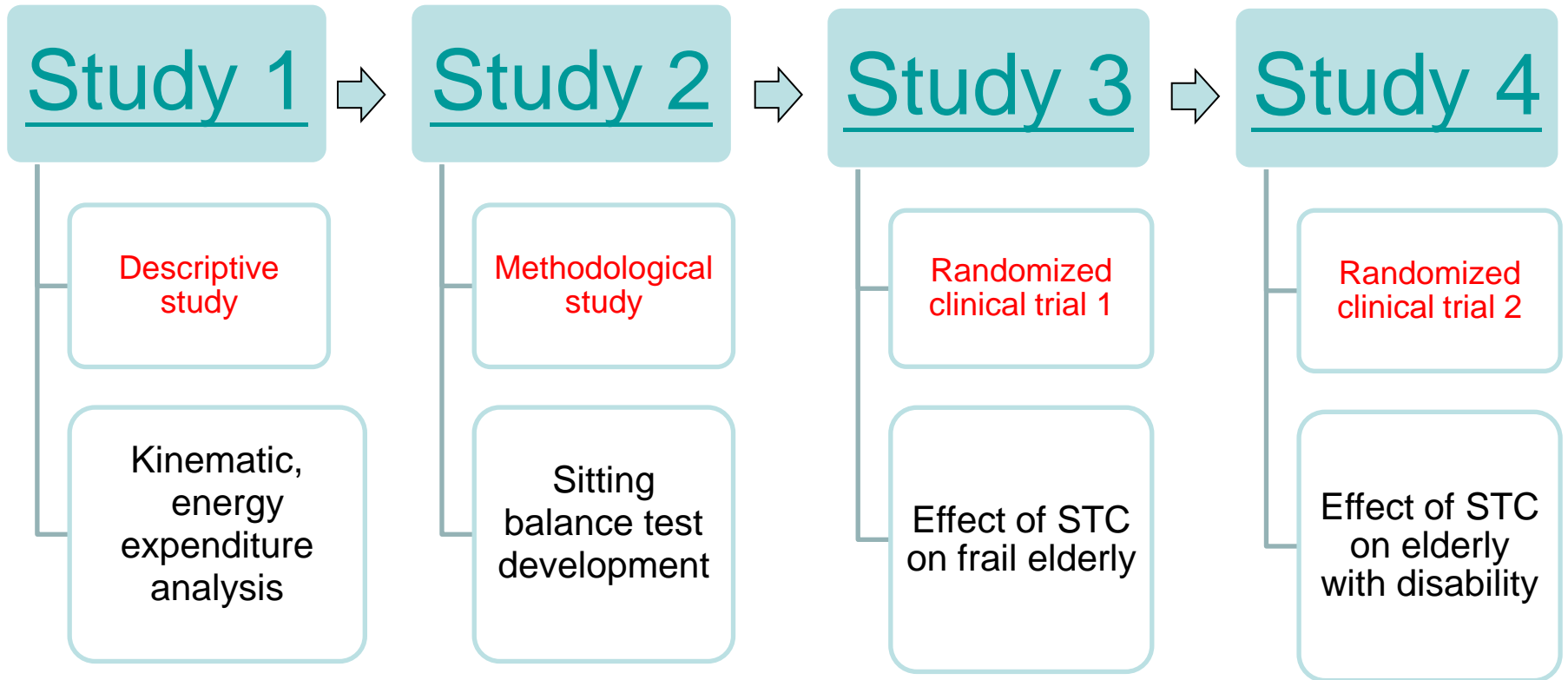
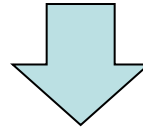
Sitting Tai Chi: a novel evidence-based exercise regime for frail elderly

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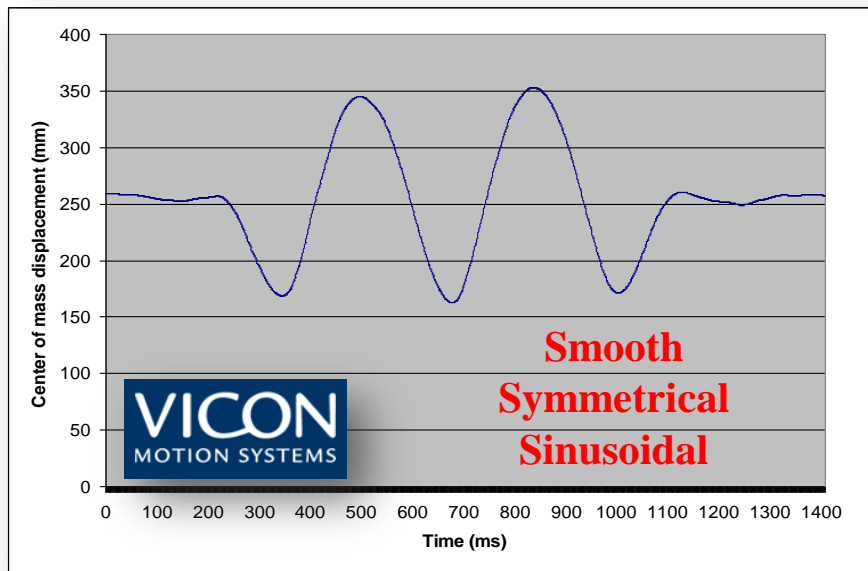
Development of 12 forms *Sitting Tai Chi*





Objectives – study 1 (N=1)

- To analyze the **kinematics characteristics** and **oxygen costs** of the newly designed 12-form of sitting Tai Chi.



**COM displacement in Tai Chi form
(Wave Hands as Clouds [雲手])**



**1.9
METs**

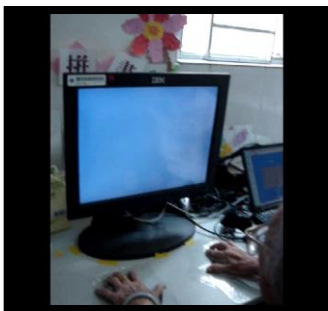
Oxygen consumption

Objectives – study 3 (N=59)

- To examine the effects of practicing sitting Tai Chi on **sitting balance** and **eye-hand coordination** among elderly persons with limited mobility



Significant
improvement
 $p \leq 0.05$



Significant
improvements in
reaction time
($p \leq 0.01$) and
accuracy ($p \leq 0.05$)





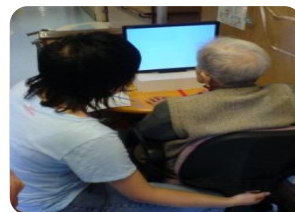
Objectives – study 4 (N=37)

- To examine the effects of practicing sitting Tai Chi on various dimensions of **physical** and **psychological well-being** among highly fragile elderly persons with **physical disability**

Significant increase in exercise group

- Range of motion
- Muscle strength
- Eye-hand coordination
- Sitting balance
- Functional measure
- Subjective well-being

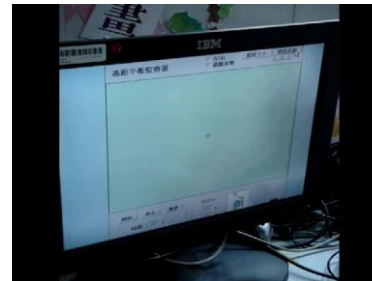
Improving trends in sitting Tai Chi group



Objectives – study 2 (N=23)

- To establish **the test-retest reliability** of a newly developed dynamic sitting balance test, the sequential weight shifting test and its **correlations** with different physical capabilities.

- Reaching test in sitting position **-.740****
- Muscles strength tests **-.666****
- Eye-hand coordination test **.458***
- Mobility scale scores **-.529****
- Pulmonary function test **-.594****



ICC (3,1) : 0.67



***indicates significance at the $p \leq 0.05$ (** $p \leq 0.01$) level of confidence**