

2016 CHS Graduate Students Travel Subsidy Application

Shaochen Huang

Advisor: Qin Zhu

Purpose

I am requesting the travel subsidy to support my research presentation (verbal) at the North American Society for the Psychology of Sport and Physical Activity (NASPSPA) annual conference, which will be held in Montreal, Quebec, Canada, on June 15-18th, 2016. This support would help defray partial cost of my travel and registration expenses for this conference. I am expecting to present my research project at this conference entitled “*Combined Visual-Kinesthetic Training Alleviated Visual Dominance Effect in Visual Learning of Bimanual Coordination*”. **This research presentation is a fruit from the CHS Student Seed Grant that I received in 2015.**

Significance

- NASPSPA has been a main international conference for scholars whose research focuses on the development, learning, and control aspects of human movement. As a graduate student with research focus on motor learning and control, this is the right conference for me to go.
- It is a good opportunity for my recent research findings to be heard by researchers in my field worldwide, and it is also important for me to learn and keep current with the development of the research in my field.
- This year, I am presenting research findings from the research project that has been supported by *CHS Student Seed Grant*, and there will be a big symposium held in this conference to address my research topic: bimanual coordination, which makes my presentation important.
- I am currently seeking the PhD program to advance my study in motor control and learning, therefore, attending this conference means the opportunity of advancing my research.
- Traveling to a big city, especially outside the US will cause a big financial burden for a student, thus, financial aid will be very much needed.

Abstract

Combined Visual-Kinesthetic Training Alleviated Visual Dominance Effect in Visual Learning of Bimanual Coordination

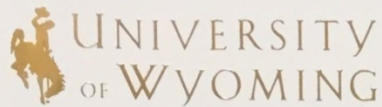
Shaochen Huang, Qin Zhu

Learning a novel pattern of bimanual coordination entails learning the visual or kinesthetic information about relative phase (Wilson et al., 2003, 2010; Snapp-Childs et al., 2015). According to the practice specificity hypothesis for motor learning (Proteau et al., 1992), better performance should show in the condition that resembles the training condition. Previous studies (Mirich et al., 2014 and Huang et al., 2015) have shown that learning a novel pattern of bimanual coordination with visual information yielded a better retention performance only when the visual information was available. This vision-specific learning effect was referred as the visual dominance effect in perceptual-motor learning of bimanual coordination. In this current study, we recruited 18 participants to learn the 90° coordination pattern. They were split into half with age and gender matched. One group was trained with visual information, and the other group with the combined visual and kinesthetic information (5 in visual-kinesthetic order, and 4 in kinesthetic-visual order). The percentage of time on task (PTT) was tested before and after training in both visual and kinesthetic conditions, and the improvement of PTT was calculated. The results showed that the visual training yielded greater improvement in the visual testing condition as opposed in the kinesthetic testing condition (t -pairwise = 4.42, $p < 0.05$). The combined training yielded the same amount of improvement ($p > 0.05$) in both visual and kinesthetic testing conditions, which was however greater than that demonstrated by the visual training group in the kinesthetic testing condition ($p < 0.05$). Hence, we conclude that the combined visual-kinesthetic training could alleviate visual dominance effect to enhance the effectiveness of using visual information to learn bimanual coordination.

Appendices

* Although I won't know if this presentation would be officially accepted until middle March, 2016, I will inform the committee of the decision as soon as it is known to me.

***2015 CHS Student Research Funding Letter**



College of Health Sciences
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April 17, 2015

Shaochen Huang
College of Health Sciences
Division of Kinesiology and Health

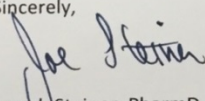
Dear Shaochen:

The College of Health Sciences Research Committee has recommended your proposal for funding in the amount of \$1,000. You should also know that under University policies the College cannot pay for gift certificates or any other give-away to be used in data collection. Please contact the Dean's Office if you may have an alternative use for the funds.

Funding for this award will be available until May 31, 2016. Please have Kimberly Bois work with Laurie Kempert in my office to access these funds. A project report should also be submitted within a year.

Congratulations on your award.

Sincerely,



Joseph Steiner, PharmD
Dean

cc: Derek Smith, PhD
Arthur Zhu, PhD
Kimberly Bois

***Budget for Travel**

Items	Unit	Cost
Airfare* (DEN <----> YUL)	1	\$380.72
Parking at DIA (\$8 per day)	5	\$40
Conference Registration	1	\$180
Hotel (\$199 per night [#])	4	\$796
Food (\$20 per day)	5	\$100
Total		\$1496.72
Request		\$750

** the lowest airfare available online as of Feb 26th 2016*

the discounted price at conference hotel between June 4rd and 7th as of Feb26th 2016