出國報告（出國類別：考察及國際會議）

赴韓國洽商籌辦「2014 東北亞運動學研討會」及參與本年度學術活動

服務機關：國立體育大學師資培育中心及體育推廣學系
姓名職稱：李再立/副教授兼中心主任及系主任
派赴國家：韓國
出國期間：101 年 5 月 18 日至 101 年 5 月 21 日
報告日期：101 年 5 月 25 日

摘要

本次奉派出國之主要目的爲：代表本校校長出席「2012 東北亞運動學研討會」，並發表演講；洽商本校籌辦「2014 東北亞運動學研討會」之相關事宜；以及參訪韓國慶熙大學體育學院，洽商簽訂交換學生之可能性。

經過四天的參訪、觀察、洽商後，提出建議如下：

(一) 2012 東北亞運動學研討會：整體而言，研討會的實質效果並不好；本校學生的備不足，包括 PPT 的製作和口語的表達都有不小的改善空間；本校思考如何提升本校學生的英文能力。

(二) 洽商本校籌辦「2014 東北亞運動學研討會」：本校可考量結合本校在東北亞國家的姊妹校共襄盛舉，以成爲名符其實的東北亞運動學研討會。

參訪韓國慶熙大學體育學院：建議先從本校體育學院與慶熙大學體育學院的合作交流做起，再逐步擴展爲校對校的合作交流。

目次

本文

一、目的

本次奉派出國之主要目的有三：一爲代表本校高俊雄校長出席「2012 東北亞運動學研討會（2012 Northeast Asia Conference on Kinesiology）」，並發表演講；二爲洽商本校籌辦「2014 東北亞運動學研討會」之相關事宜；三爲代表學校參訪韓國慶熙大學體育學院，洽商簽訂交換學生之可能性。

二、過程

(一) 第一天（5 月 18 日）

本人搭乘長榮航空 BR170 班次於上午 07：30 自桃園國際機場起飛，並於 11：00 安抵韓國仁川機場。出關後，自行搭乘巴士前往大會安排之住宿飯店（Provista Hotel）。安頓好後，即步行到首爾國立教育大學（Seoul National University of Education）確認會場所在地及相關設施，並參觀該大學之校園。

(二) 第一天（5 月 19 日）

一早即步行到首爾國立教育大學，在報到及領取相關資料後，即進入會場參加開幕式及聆聽口頭發表，其中有幾場的發表者是來自本校博、碩士研究生，他們的表現略嫌生疏，似乎準備的不是很充分。

中午休息時間與本次研討會的秘書長 Dr Ki-Kwang Lee 簡單交談，並請教研討會籌辦相關事宜。

下午繼續聆聽數場口頭發表後，即返回住宿飯店洗澡更衣準備參加晚間的歡迎晚宴。

晚間的歡迎晚宴在七點鐘開始，主要參加者計有：

研討會創辦人 Dr Jung Soa Oak (Dankook University)

研討會主席 Dr Eung-Keun Jung (Seoul National University)

執行副主席 Dr Dong-Kyu Lee (Seoul National University of Education)

學術副主席 Dr Kyung-Won Kim (Seowon University)

公關副主席 Dr Chang-Sun Kim (Dongdul Women's University)

發表副主席 Dr Deog-Jo Jung (Seowon University)

秘書長 Dr Ki-Kwang Lee (Kookmin University)

日本代表：川口毅（財團法人全日本勞動福祉協會常務理事）

專題演講者：Dr Hyo-Bum Kwak (Inha University)

專題演講者：Dr Young-Ho Kim (Seoul National University of Science & Technology)

專題演講者：Dr Yonh-Ho Lee (Seoul National University)

專題演講者：Dr Young-Kwan Kim (Chonnam National University)

專題演講者：Dr Sang-Kyoon Park (Korea National Sport University)

專題演講者：Dr Suk-Won Kim (Chonbuk National University)

專題演講者：Dr Sae Yong Lee (Yonsei University)

專題演講者：Dr Eun-Jeong Lee (Seoul National University)

專題演講者：Dr In-Wha Lee (Gyeongin National University of Education)

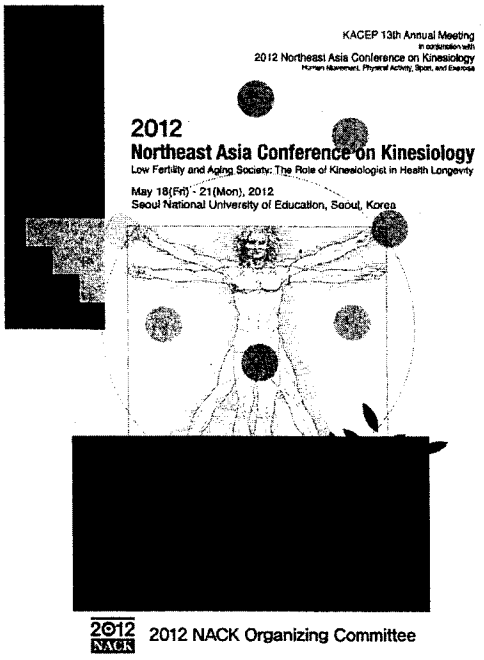
專題演講者：Dr Tzai-Li Li (National Taiwan Sport University)

晚宴中，大家相互介紹，並自由交談，氣氛相當愉快。

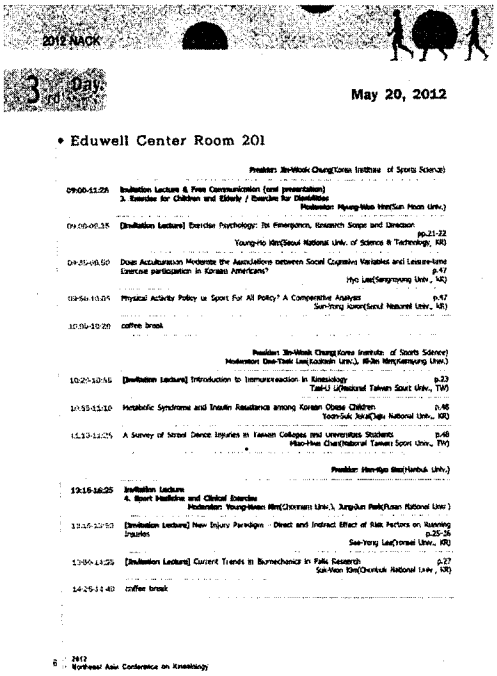
晚宴後，研討會創辦人 Dr Jung Soa Oak 特地陪我步行回飯店，並在途中討論研討會籌辦相關事宜。

(三) 第三天（5 月 20 日）

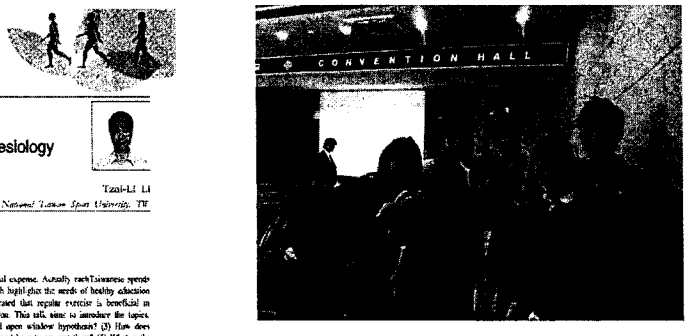
一早即步行到首爾國立教育大學，並進入會場聆聽演講。10：20-10：55 是我的專題演講，我將專題演講分爲兩部分，一部份是介紹本校的概要，大約 5 分鐘；第二部分是介紹運動與免疫反應。該場演講應算成功，因爲會後許多學者找我詢問進一步的訊息，以及日後合作的可能性。



「2012 東北亞運動學研討會」手冊封面



手冊目錄



專題演講介紹

演講會後與本校學生合影

本校研究生發表後的愉快模樣

專題演講 PPT 如下：

國立體育大學

2012 Northeast Asia Conference on Kinesiology

Introduction to Immuno-reaction in Kinesiology

Dr Tzai-Li Li

Professor of National Taiwan Sport University

Head of Department of Sport

SPORTING CAMPUS

Outline

sport promotion sport promotion

- Introduction to National Taiwan Sport University (NTSU)
- Introduction to Immunoreaction in Kinesiology
  - Do elite athletes have a better immunity?
  - J-shaped model
  - Open window hypothesis
  - How does heavy exercise affect immune function?
  - Factors contributing to incidence in athletes
  - How to prevent infection
  - Diseasome of physical inactivity
  - Future directions.

2

Elite athletes with better immunity?

sport promotion sport promotion

3

New Asian Queen of ultra-marathon

sport promotion sport promotion

4

What's happened?

sport promotion sport promotion

5

Normal circulation

sport promotion sport promotion

6

Inflammation

7

Are athletes susceptible to infection?

- Respiratory infections seemed to progress toward pneumonia after intense exercise and competitive sport (Cowles, 1918).
- Some athletes experience high rates of certain illness, such as infectious
  - Mononucleosis (Foster et al. 1982)
  - Upper respiratory tract infection (URTI; e.g. common cold, sore throat, middle ear infection) (Douglas and Hason 1978).

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Is URTI popularly happened in athletes?

- Up to 47% during the two weeks after a 56-km ultramarathon (Peter and Bateman 1983)
- 40% of marathon runners in the two months before and 12% of runners in the week after a marathon (Nieman et al 1990)
- 68% of runners after a 90-km ultramarathon (Peters et al. 1993)
- 50% of runners in the week after a marathon (Castell et al. 1996)
- 40% of elite swimmers during four weeks of intensified training (Mackinnon and Hopper 1996).

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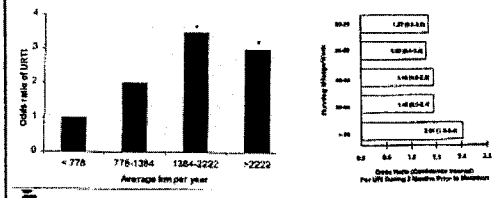
Does running mileage affect URTI risk?



Heath et al 1991

Nieman et al. 1990

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Does acute illness affect performance?

- In athletes, decrements in performance have been associated with
  - Subclinical viral infection and prolonged recovery after viral infection (Maffulli et al. 1993)
  - Aerobic exercise capacity during prolonged submaximal work (Danial et al. 1985)
  - Muscular strength (Danial et al, 1985; Friman et al. 1977).
- Protein degradation and impairments of protein synthesis or energy metabolism during illness may limit exercise capacity as well as long-term adaptations to exercise training (Friman and Ilback 1992).

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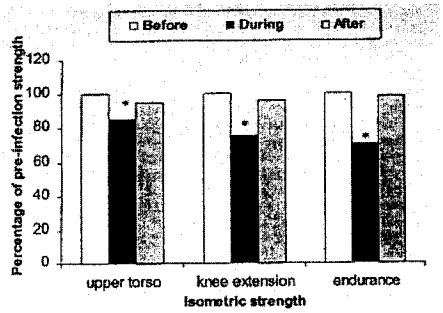
Does acute illness affect performance?



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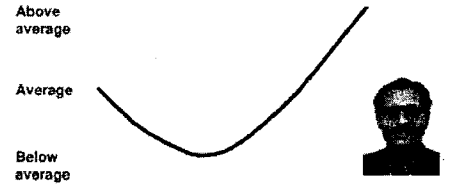
J-shaped model _ EX & URTI risk



Nieman, D. C. (1994). *Int. J. Sports Med.*, 15, S131-S141.

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Epidemiological evidence _1

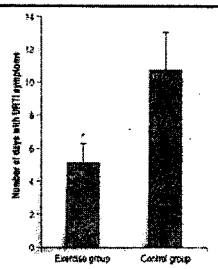

Figure 1.2 The number of days with symptoms of URTI in a group of mildly obese, young women randomly assigned to either 15 weeks of moderate exercise training or no exercise. The exercise group participated in brisk walking training for 45 minutes, 5 days a week at 60% heart rate reserve and reported significantly fewer URTI symptoms days compared with the non-exercising control group. (Data from Nieman et al 1990b.)

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Epidemiological evidence _2

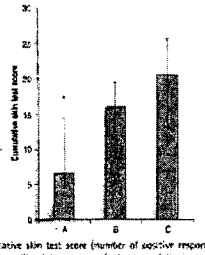

Figure 1.5 The cumulative skin test score (number of positive responses and sum of the diameters of the raised swellings) in a group of triathletes following a triathlon race (group A), a group of triathletes who did not compete in the race (group B) and a group of moderately trained individuals (group C). The response of group A was significantly lower than that of groups B and C. (Data from Brenner et al 1997.)

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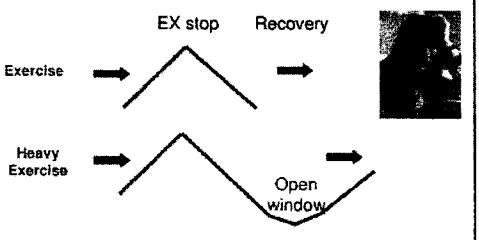
Open window hypothesis



Pedersen, B. K. (1999). In Psychoneuroimmunology: An interdisciplinary introduction. pp.341-356. New York: Kluwer Academic/Plenum Publishers.

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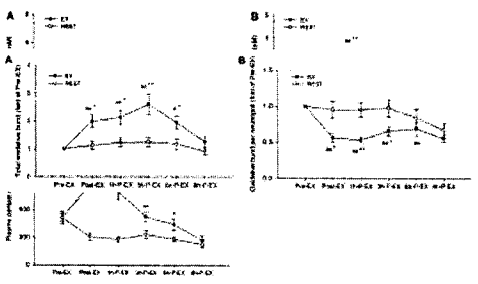
How long is the window opened?



Li, T.-L. & Cheng, P.-Y. (2007). Eur J Appl Physiol, 101(5), 539-546

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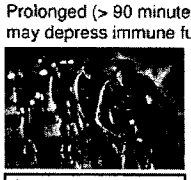
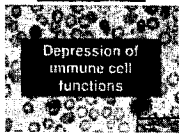
Factors contribute to incidence _1

Prolonged (> 90 minutes) hard bouts of exercise may depress immune function



↓ Blood glucose
↓ Muscle glycogen
↑ Interleukin-6
↑ Stress hormones
↑ Free radicals



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Factors contribute to incidence _2

Factors contributing to increased susceptibility to infection in athletes

Increased exposure to pathogens

Lung ventilation
Skin abrasions
Foreign travel
Crowds

Physiological stress
Psychological stress
Environmental stress
Lack of sleep
Inappropriate Diet

Increased susceptibility to infection ← Immunodepression

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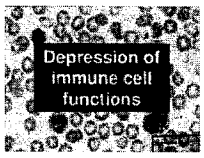
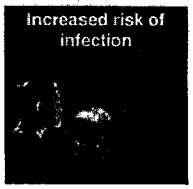
Heavy EX and immune function

Depressed immunity may increase risk of picking up colds and flu





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Are there practical considerations?

- Illness needs time to recover.
- Impaired strength and exercise capacity during viral infection may lead to musculoskeletal injury in athletes who attempt to continue training at high intensity during illness (Simon 1987).
- Viral illness with systemic involvement (e.g. fatigue, fever, muscle aches, enlarged lymph nodes) requires one month for complete recovery before resumption to intense training (Roberts 1986).
- Above the neck rule (Budgett 1990).
  - Symptoms above the neck: continue EX
  - Symptoms below the neck: stop EX

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How to prevent infection? _1

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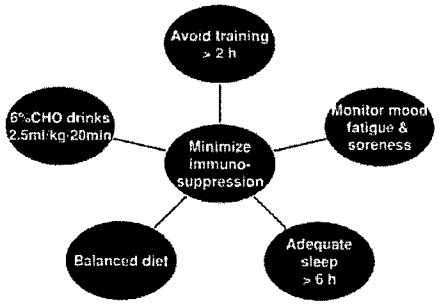
How to prevent infection? _2



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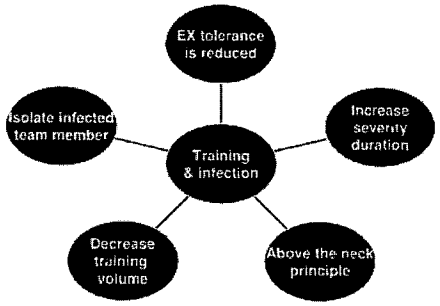
How to prevent infection? _3



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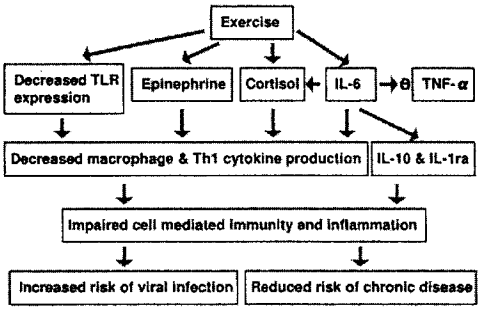
Effects of EX on immune function



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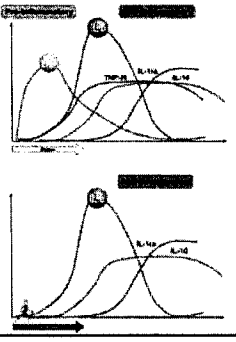
Sepsis- vs. EX-induced cytokines



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Small price with big benefits

- "Small price" means
  - Prone to acquire URTI
  - Decrease in TLR expression
- "Big benefits" are
  - Decrease the inflammatory capacity of leukocytes
  - Alter whole body chronic inflammation
  - Reduce the risk of developing chronic disease
- Exercise has anti-inflammatory effects

Michael Gleeson. (2007). Immune function in sport and exercise. *Journal of Applied Physiology*.

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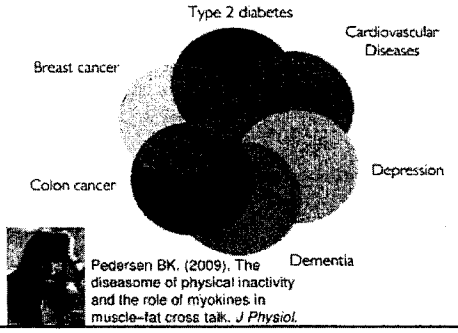
Diseasome of physical inactivity



Pedersen BK. (2009). The diseasome of physical inactivity and the role of myokines in muscle–fat cross talk. *J Physiol.*

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Hypothesis

Physical Inactivity

↓

Abdominal Adiposity

↓

Macrophage infiltration of visceral fat

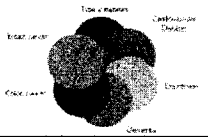
↓

Chronic Systemic Inflammation

↓

Insulin Resistance, Atherosclerosis, Neurodegeneration, Tumour growth

↓



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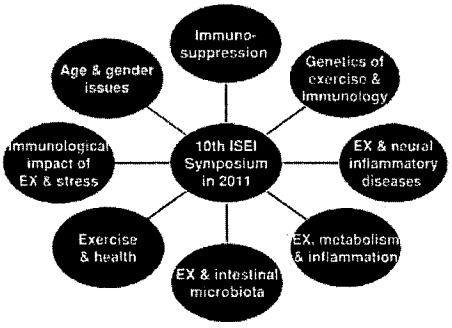
Future directions



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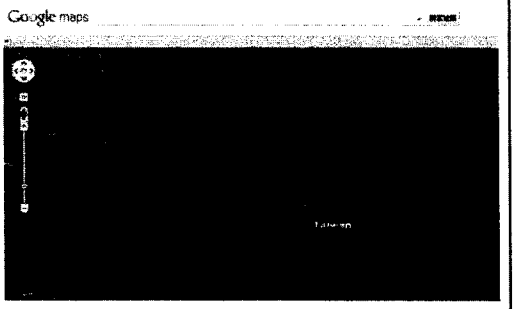
Building Global Bridges Through Physical Education and Sport for the 21st Century

Introduction to

Dr. T. L. Li, Ph.D.
Professor N.T.S.U.

National Taiwan Sport University

Geographic Location of Taiwan

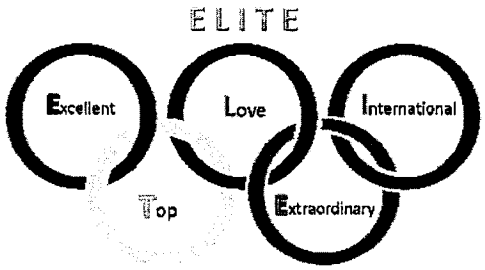


Location of National Taiwan Sport University (NTSU)

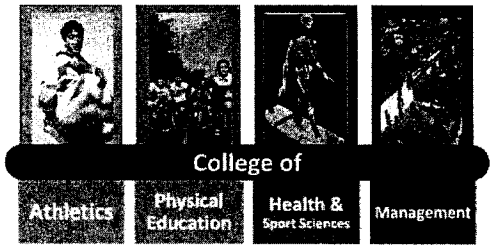
Historical Background of NTSU

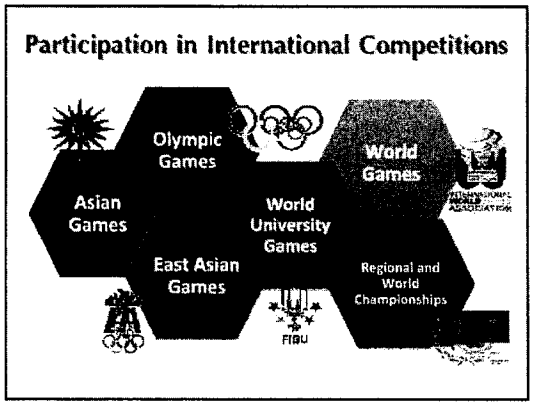
- 1987.07.01
  - National College of Physical Education and Sports (N.C.P.E.S.) with 1 department and 1 graduate institute.
- 2009.08.01
  - National Taiwan Sport University (NTSU) with 4 colleges, 4 graduate institutes and 7 departments.

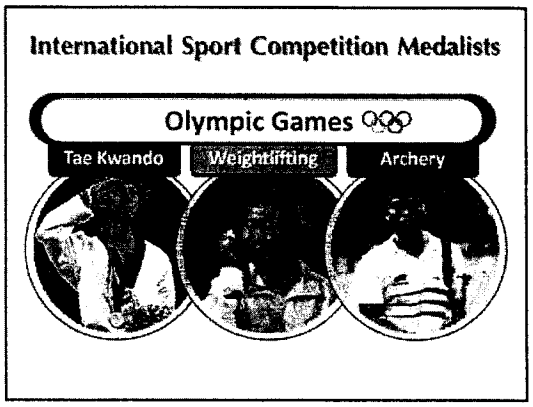
Educational Goals of NTSU

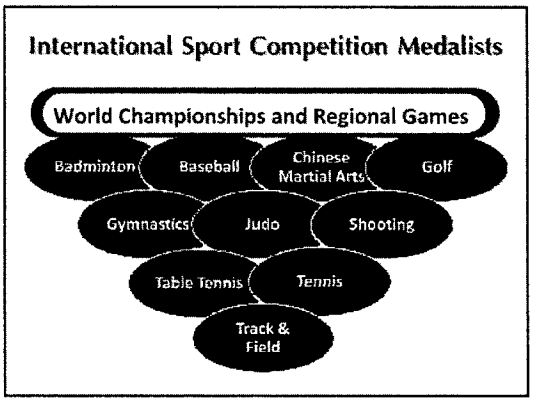


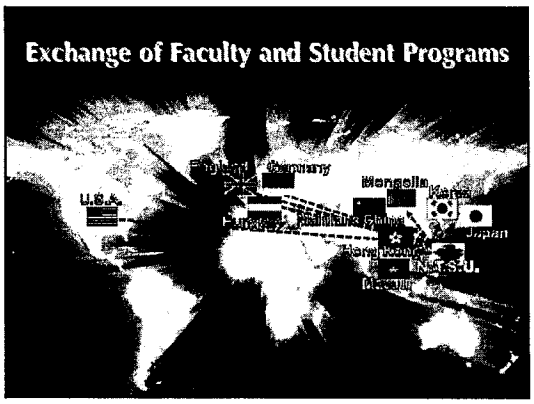
National Taiwan Sport University

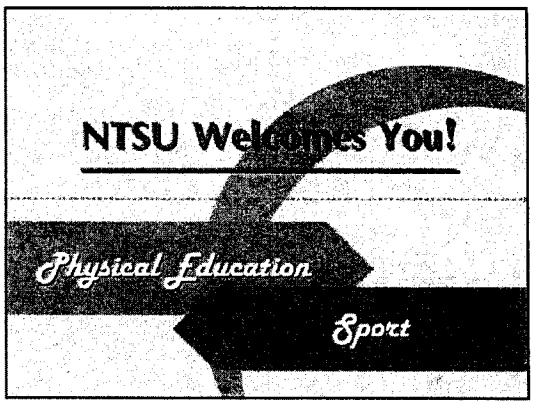












(四) 第四天（5 月 21 日）

上午 10：00 慶熙大學 Dr Kyong-Keun Choi 及校友張馨勻到住宿飯店接我去參訪慶熙大學。在慶熙大學會面之教授包括：

Dr Young-Ryul Choi (Dean, College of Physical Education)

Dr Byung Kwyan Chun (Professor, College of Physical Education)

Dr Jong-Kyoung Kim (Chair, Graduate School of Physical Education)

Dr Kyong-Keun Choi (Adjunct Professor, College of Physical Education)

Dr Joon Hee Lee (Associate Professor, College of Physical Education)

我們主要商談的主題：

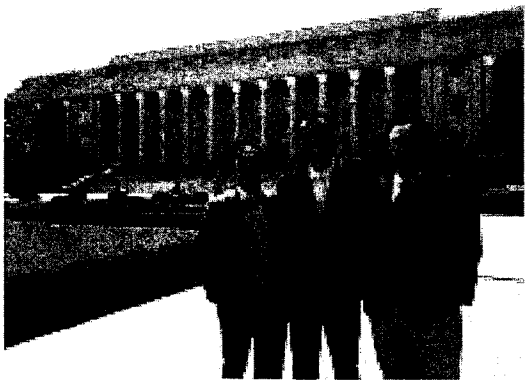
相互介紹學校體育發展概況

代表本校高俊雄校長邀請院長帶領訪問團於今年 10 月訪問本校，進一步討論簽訂姊妹校及交換學生事宜。

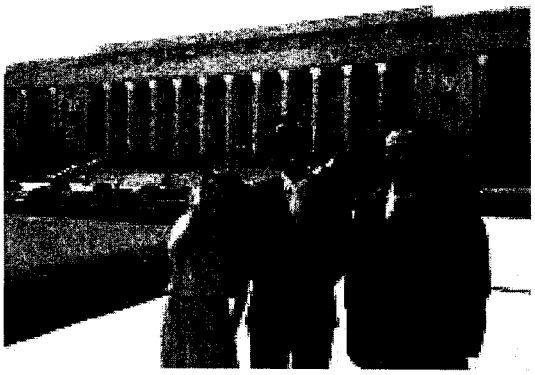
慶熙大學表示：因爲體育學院院長將於今年七月退休，他們將改選院長；所以來本校訪問、姊妹校及交換學生等事宜，將待新院長產生後，儘速商討。

接著，他們引導我去參觀慶熙校園，包括圖書館、運動設施、體育學院實驗室等。

結束參訪後，個人即赴仁川機場搭乘長榮航空 BR159 班次飛機回到臺灣。



與 Dr Kyong-Keun Choi 及 Dr Joon Hee Lee 在慶熙大學圖書館前合影



與 Dr Kyong-Keun Choi 及本校校友張馨勻在慶熙大學圖書館前合影

參觀慶熙大學低氧艙實驗室

在慶熙大學校園留影

三、心得及建議

(三) 2012 東北亞運動學研討會

本次研討會分兩個會場舉辦，一個會場以韓文進行，另一個會場以英文進行。韓文會場每一場的參與人數約略在 100-150 人之間，從參與者的面貌判斷，應多爲學生；英文會場每一場的參與人數則約略在 30-60 人之間，且參與者多爲教師及外國學生。整體而言，研討會的實質效果並不好，參與人數與研討會創始會長 Dr Oak 所宣稱的 1500-2000 人有段差距。

本校學生願意遠渡重洋到韓國發表，實值鼓勵與肯定；然而，在聆聽他們的發表過程，卻也發現他們的準備不足，包括 PPT 的製作和口語的表達都有不小的改善空間。本校該如何提升學生的英文能力，值得我們深思後，提出具體措施與行動！

(四) 洽商本校籌辦「2014 東北亞運動學研討會」

本校若想接辦「2014 東北亞運動學研討會」，則須思考如何結合本校在東北亞國家的姊妹校，邀請他們共襄盛舉，以成爲名符其實的東北亞運動學研討會。

(五) 參訪韓國慶熙大學體育學院

韓國慶熙大學體育學院不論學生的運動競技表現或是整體教學及學術績效，都相當優異，實值本校積極推展更進一步的交流與合作。

因爲本校規模與慶熙大學的規模有些差距，若在短時間內不方便簽訂姊妹校，個人建議可思考先從本校體育學院與慶熙大學體育學院的合作交流做起，再逐步推展爲校對校的合作交流。