

出國報告（出國類別：國際會議）

（裝訂線）

出席工作安全與衛生國際研討會（XIX World Congress on Safety and Health at Work）

服務機關：行政院勞工委員會勞工安全衛生研究所
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派赴國家：土耳其
出國期間：100/09/10~100/09/17
報告日期：100/12/07

行政院及所屬各機關出國報告提要

出國報告名稱：出席工作安全與衛生國際研討會（XIX World Congress on Safety and Health at Work）

頁數 20 含附件：■是□否

出國計畫主辦機關/聯絡人/電話

出國人員姓名/服務機關/單位/職稱/電話

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報告日期：100/12/07

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關鍵詞：職業衛生、土耳其、勞工

內容摘要：(二百至三百字)

行政院國家科學技術發展基金管理會業核定補助計畫「100年安衛科技研發成果國際交流計畫」(計畫編號 NSC100-3111-Y-285A-004)。第 19 屆世界安全衛生大會 (XIX World Congress on Safety and Health at Work) 於 9 月 11 日至 9 月 15 日假土耳其伊斯坦堡金角會議中心 (Halic Congress Center) 舉辦，會議主題為「為健康安全的未來建構全球性預防文化 (Building a Global Culture of Prevention for a Healthy and Safe Future)」，並同時舉辦國際影片與多媒體競賽 (International Film and Multimedia Festival)。

游研究員兼館長逸駿參加研討會發表論文 1 篇：The Performance of Cooperation Between Schools and Exhibition Hall of Occupational Safety and Health in Taiwan (海報發表)，並於多媒體競賽說明入圍「安全衛生展示館電子書」，及廣宣影片競賽入圍片 2 部，國立自然科學博物

館與本所製作防災西遊記皮影戲一部。

本次經游研究員兼館長逸駿說明並現場操作「安全衛生展示互動多媒體電子書」，獲各國熱烈迴響，特別如羅馬尼亞等資訊缺乏之東歐國家。並於閉幕典禮來自 160 國超過 5000 位來賓見證下，評審團推薦盛讚製作優良，獲頒評審團大獎之榮耀。我國勞工安全衛生展示實力雄厚，連續 2 屆於多媒體競賽榮魁，會後並應邀加入本次主辦單位之一的「國際社會安全協會（International Social Security Association，ISSA）」，發揮應有之影響力。

本文電子檔已傳至出國報告資訊網（<http://report.gsn.gov.tw>）

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壹、目的與任務

職業安全與健康係勞工生活健康重要之一環，亦為世界衛生組織（World Health Organization）與國際勞工組織（International Labour Organization）聯合推動之重要工作之一。世界安全衛生大會（The World Congress on Safety and Health at Work）是在職業安全與健康場域最重要的國際性活動之一，旨在有助各國職安衛研究學者與實踐者、國家主管當局、政策制定者、社會保險機構與勞雇雙方團體，於預防職業傷病及保護工作者之健康，提供策略、良好實務（good practices）、知識、新科技與合作的努力等國際相關資訊交流之平台。於三年一次之大會及「國際影片與多媒體競賽（International Film and Multimedia Festival, IFMF）」，由國際勞工組織與國際社會安全協會（International Social Security Association, ISSA），及主辦國勞動部主辦，並朝向建構與補強合作性網絡和聯盟，強化夥伴關係。

我國政府與相關團體近年因無法進入國際勞工組織正式會議及提升參與國際事務有其必要性，於 2005 年起推動參與其第 17 屆世界安全衛生大會，第 18 屆世界安全衛生大會（XVIII World Congress）於亞洲韓國首爾舉辦，並邀集區域領袖舉行高峰會發表「首爾宣言」。本所製作之影片「關鍵時刻」獲得第 7 屆影片競賽首獎，藉此我國持續而積極參與進而藉由專業實質國際合作形成普世價值之台灣貢獻。

世界職業安全衛生大會係由聯合國所屬機構國際勞工組織(ILO)及國際社會安全協會(ISSA)等重要國際組織主辦，每三年舉辦一次，是目前世界規模最大且被譽為安全的奧運賽(Safety Olympics)，本屆假土耳其伊斯坦堡舉行，來自 180 個國家，5,300 多位各國代表及專業人士參與。我國宜朝向建立一個洞悉全球化潮流，並能體認自身國際角色及國際優勢地位的職業安全衛生外交策略；強調安全衛生無國界為主軸，整合國內橫向、縱向的資源，近年之努力業已促使擴大國際接軌之「職業安全衛生法」於 2011 年進行修法，持續加強安全衛生國際事務建立及建構國際合作夥伴關係兩大方向努力。其概念架構主要項目如下：

- (1)推動官方與非官方安全衛生交流與聯繫
- (2)參與國際職業安全衛生組織
- (3)整合安全衛生國際技術合作
- (4)建置技術交流平台。

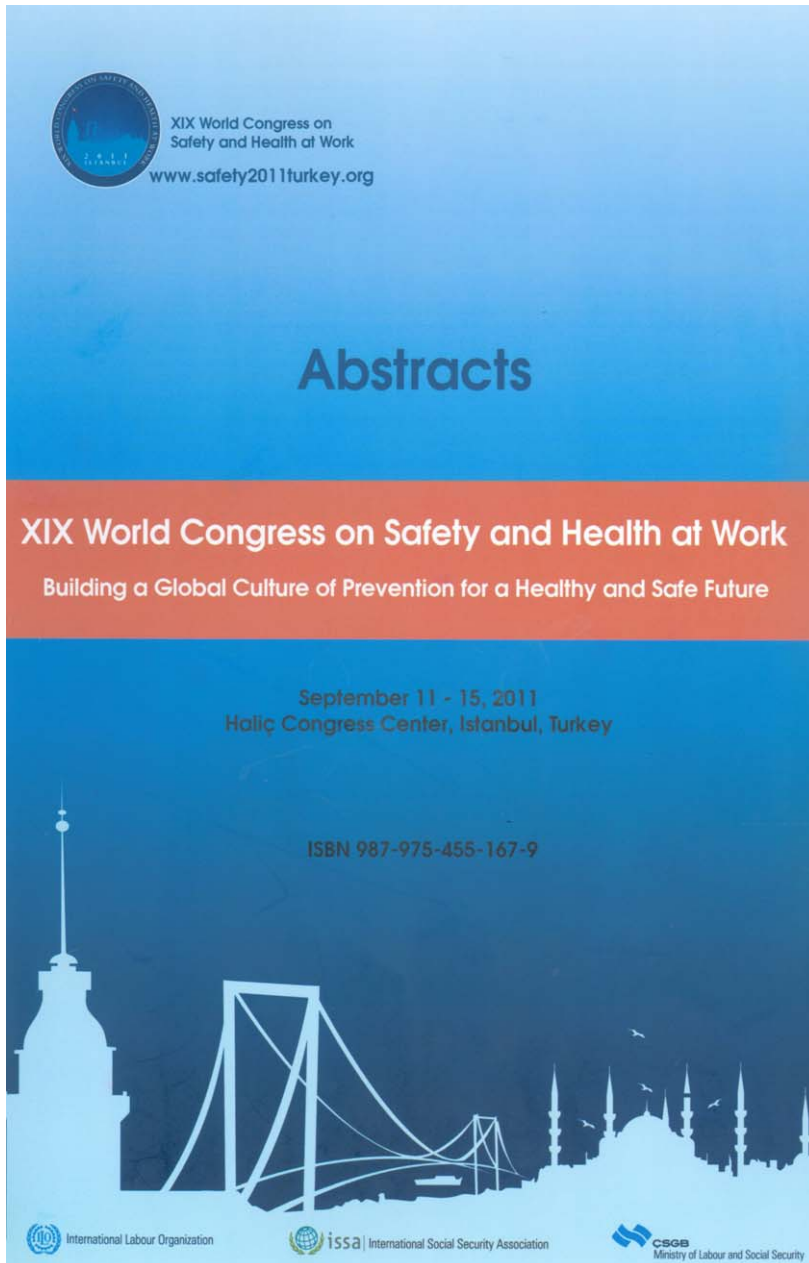
在此架構下，本所主要非官方組織及學術技術交流部分，發揮重要的業務功能。國際社會安全協會為聯合國所屬重大組織認知的重要之非政府組織(non-governmental organization, NGO)，與 ILO 互動十分密切，最近又與聯合國及 G20 推動「社會安全地板（Social Protection Floor）方案」，國際地位日隆。本計畫將藉由參與國際安全衛生大會及展覽活動，成為重要安全衛生 NGO 組織或研究機構之會員或準會員，加強已加入國際合作研究及技術交流，並開發新的 NGO 組織加入為會員，藉由這些 NGO 組織交流合作，

將逐步提昇自我研究成果之國際能見度，並尋求建立持續、緊密及互利之合作機制，以研究同仁在專業的努力與成果，突破我國官方參與國際組織的國際現實之限制，實質影響國際 NGO 組織等機構，提昇我國安全衛生水準。

基於職業安全衛生問題在國際上也是一個共通的問題，各國安全衛生機構不論是政府或民間、學術研究或實務輔導等團體，都非常重視，借助國際交流，國際職業安全衛生合作本質上是一種人道關懷及永續發展，培養國際合作夥伴關係的重要工作。勞工是國家最重要的人力資本，也是國家經濟發展重要的因素之一。因此，台灣政府在這個議題必須付出較多的資源與扮演較重要的角色，共享職災風險降低及成果應用經驗，分享資訊與科技研發成果才能預防職業災害以維持社會祥和樂利與經濟永續成長。

本次出國目的參加第 19 屆世界安全衛生大會 (XIX World Congress on Safety and Health at Work) 於 9 月 11 日至 9 月 15 日假土耳其伊斯坦堡金角會議中心 (Halic Congress Center) 舉辦，會議主題為「為健康安全的未來建構全球性預防文化 (Building a Global Culture of Prevention for a Healthy and Safe Future)」，並同時參加國際影片與多媒體競賽 (International Film and Multimedia Festival)。

本次游研究員兼館長逸駿參加研討會發表論文 1 篇：The Performance of Cooperation Between Schools and Exhibition Hall of Occupational Safety and Health in Taiwan (海報發表)，並於多媒體競賽說明入圍「安全衛生展示館電子書」，及廣宣影片競賽入圍片「蛋頭篇 Egg or Head」、「工安檢查員 The Robot Inspector」等 2 部，國立自然科學博物館與本所製作防災西遊記皮影戲一部。



照片 1-1：第 19 屆世界安全衛生大會論文摘要輯

貳、行程簡介

100.09.10 往程轉機（台北->香港（轉機）->伊斯坦堡）

100.09.11-9.15 XIX 世界安衛大會（伊斯坦堡）

100.9.16-9.17 返程（伊斯坦堡->香港->台北）



照片 2-1：大會開幕活動



照片 2-2：開幕表演

參、世界安全衛生大會內容概述

一、開幕典禮與專題演講

來自包含台灣等 180 個國家超過 5000 位各行各業的安全健康與環境專業人士齊聚土耳其伊斯坦堡金角國際會議中心（Halic Congress Center），參與三年一度第 19 屆世界安全衛生大會（XIX World Congress on Safety and Health at Work），與 8 屆影片與多媒體競賽（8th International Film and Multimedia Festival, IFMF），併於現場辦理展示（Expo），即為眾人週知的 World Congress - Global Forum for Prevention，自 9 月 11 日至 9 月 15 日為期五天。在國際勞工組織（International Labour Organization）、國際社會安全協會（International Social Security Association）與土耳其國家勞動與社會安全部（Ministry of Labour and Social Security, CSGB）共同合作主辦，在土國健康部（Ministry of Health）、林業及水利工事部（Ministry of Forest and Hydraulic Works）、社會安全機構、勞動檢查機構理事局、職業安全衛生總署、勞動事務總署與、WHO 等大型國際組織機構支持，及全球與歐陸地區科學性機關(構)、協學會參與下，如 WHO EURO/SEE Network、EEA-EU European Environmental Agency、ENSHPO European Network of Safety and Health Professional

Organization、Eurotox Federation of European Toxicologist and European Societies of Toxicology、ILO-CIS (The 49th Annual Meeting of ILO-CIS National, Collaborating and Regional Centers)、CARWH (Canadian Association for Research on Work and Health) 所主辦之紡織服飾業面臨全球化下女性工作者社會支持體系之培育等、ISSA International Social Security Association 各項區域會議、NSC National Safety Council、Occupational Health & Safety NETworking in EASTern Europe、OSHA European Agency for Safety and Health at Work。並且今年是世界安全衛生大會有史以來最大的海報展示，計有 596 篇。

土國首相，及勞雇雙方代表均致歡迎與重視安全衛生之意。大會會議除專題演講、技術會議（3 場次）、區域會議、研討會（26 場次）、演說者角落（Speakers' Corner，22 場次）、海報展示、訓練課程外，另有國際影片與多媒體競賽及國際性安全衛生展示。

會議由國際勞工組織社會保障局長 Assane Diop 代理 ILO 總局長（Juan Somavia）表達感謝安排與提及安全衛生工作，於全球金融危機經濟回復之時更是重要，並可確保永續發展之首要工作，並希望各國以預防原則改善職業安全衛生體系。國際社會安全協會 ISSA 理事長 Errol Frank Stoove 於開幕致詞中強調預防性文化之重要，並支持 2008 年首爾宣言之進展，期待於大會中更多專家與決策者之參與，專家專業能力與創新，提供更多職業災害於疾病等補償性的服務樣態。



照片 3-1：土耳其首相致開幕辭

照片 3-2：ISSA 理事長司徒福致詞

專題演講邀請 ILO 安全健康部門主管日籍 Seiji Machida、ISSA 秘書長 Hans-Horst Konkolewsky、芬蘭健康及社會服務部長 Paula Risikko 與新加坡資深國會部長就關於會議主題為健康安全的未來建構全球性預防文化（Building a Global Culture of Prevention for a Healthy and Safe Future）國際走向與芬蘭及新加坡二國經驗說明。ILO 並提出「職安衛全球趨勢與挑戰（Global Trends and Challenges on Occupational Safety and Health）」報告，就教於世界各國專家，強調職災較福島核災影響更大卻鮮為人知，經濟蕭條帶來職安

衛長期不利的影響，使勞工持續面對更多高危害設施機械器具等，也使工作壓力、暴力等心理性因子對工作者之健康帶來顯著的衝擊。



照片 3-3：筆者於會議場地



照片 3-4：ISSA 展攤

延續 2008 年首爾宣言，本此也由各國勞動部長提出伊斯坦堡工作安全健康宣言（ISTANBUL DECLARATION on Safety and Health at Work），如附件一，包括阿富汗、阿爾巴尼亞、阿爾及利亞、烏茲別克、智利、埃及、芬蘭、印度、約旦、科威特、馬其頓、馬來西亞、模里西斯、摩洛哥、奈及利亞、巴基斯坦、巴勒斯坦、卡達、沙烏地阿拉伯、敘利亞、斯洛伐尼亞、索馬利亞、蘇利南、多哥、烏干達等 33 國。於閉幕式時，未來也將形成於世界大會舉行高峰會之慣例。

二、國際社會安全協會(ISSA)

國際社會安全協會(ISSA)是在 1927 年成立，是國際上由主要社會保險機構或組織所構成，總部設於日內瓦，而現在 ISSA 與 ILO 非常接近，從 152 個國家或地區之 333 名會員。而預防（Prevention）工作是社會保障之核心價值。其下設有 12 個國際性之預防部門（International Prevention Sections），旨於於國際間發起或整合或協調相關活動，預防職業災害。於本次會議提出「投資安全與健康工作是企業經濟表現的關鍵因子（The return on prevention: Calculating the costs and benefits of investments in occupational safety and health in companies）」的研究報告。我國目前於 ISSA 未有會籍參與，但可能因本所於第 7、8 屆影片與多媒體競賽均有傑出表現，於會後獲專函邀請本所加入成為會員。

2014 年的第 20 屆世界安全衛生大會由與台灣友好的德國職業災害保險（German Social Accident Insurance, DGUV）於法蘭克福舉辦。

ISSA 除一般性活動外，其「電氣（Electricity，成立於 1970 年）」與「資訊（Information，成立於 1971 年）」部門更為主辦影片及多媒體競賽 IFMF 的單位，本次第 8 屆有來自 29 國 221 項作品參與競賽。最近 ISSA 又與聯合國及 G20 推動「社會安全地板（Social Protection Floor）方案」。強調應依經濟社會文化權利公約第 7 條確保人人享有社會保險

之權利，國家應依國家之情形，確保人人享有社會、健康、衛生受教育等基礎保障，並於轉移時確認其服務實施之涵蓋。

本次大會並設有專屬展攤提供文宣品及安全駕駛遊戲體驗，證據顯示分心接電話等將使駕駛行為更危險。

三、研討資料記述：安全衛生研究論文

本次研討會有 ILO、WHO、歐盟職業安全衛生機構，及德國、芬蘭、波蘭等歐陸各國職業衛生研究機構、大學、專業團體等國官員、專家學者發表論文。筆者之海報發表於 9 月 11 日開幕典禮，以「The Performance of Cooperation Between Schools and Exhibition Hall of Occupational Safety and Health in Taiwan」為題，與會者均充分感受台灣職業安全衛生政策之思維之深度與強度，參觀者對台灣運用職業災害保護基金進行博物館層級之安全衛生宣導非常感動，並就台灣勞資政三方合力推動安全與健康主題之醒悟活動充分討論。

以下就研討會相關重要文章與活動進行介紹：

(一) 東南亞國協地區安全衛生網絡區域會議

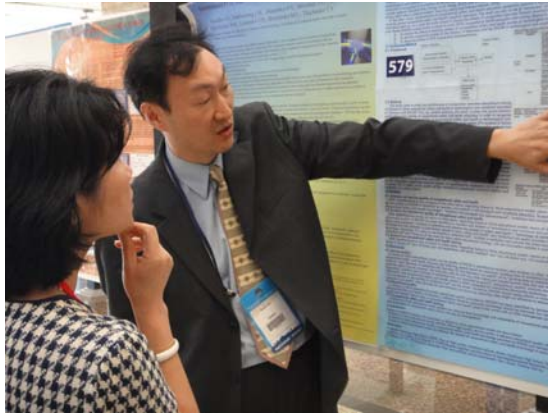
東南亞國協地區安全衛生網絡區域會議（ASEAN OHSNET）於 9 月 13 日舉行，以亞洲安全衛生最佳實務（Best Practices on OSH in Asia），由菲律賓主持。並由柬埔寨、中國、泰國、新加坡、越南及 ILO 東亞、東南亞及太平洋地區尊嚴勞動計畫日籍官員發表技術協助成果。

(二) 中小企業風險評估與職業安全衛生管理之策略

由歐盟工作安全健康總署（EU-OSHA）提出線上互動式風險評估軟體（Online Interactive Risk Assessment, OIRA）成果發表會，成立推動委員會，回應國家提出基礎健康服務觀念，多需風險評估概念法系落實於中小企業，並經勞資政三方會議，積極發展技術工具（toolkits），研究創新手法來面對職業安全衛生問題。本次會議美國職業安全衛生署署長也是美國勞動助卿 David Michael 博士發表視訊會議演說。

(三) 其他活動花絮

研討會有 25 場次的及 22 場次之口頭發表研討發表，如粉塵、奈米、教育訓練、通風等等安全衛生國際關注議題；與中小企業協助其施行安全衛生管理體系、與預防意外災害或疾病之最新動向。於展示場有 EUOSHA 及德國 DGUV 與法國等法人機構與安全衛生器材供應商辦理展示。EUOSHA 署長 Takala 博士退休在即，仍於展示場辦理多場會晤，及 OIRA 發表活動。



照片 3-5：筆者海報發表演講



照片 3-6：筆者說明台灣職業安全衛生展示
電子書成就

會議空檔筆者另與 2010 年四月份於 APOSHO 見面之國際勞工組織安全工作計畫主管日籍誠田君敘舊寒暄，另與 EUOSHA T 署長、S 處長及 T 經理表示本所將持續於 11 月份回訪，並與荷蘭半官方職業安全平台負責部門 TNO 國際事務部門 M 經理就我國加入歐盟職業安全衛生研究機構論壇討論特定議題交換意見、ISSA 秘書長 K 君就職業災害勞工職業重建交換意見、建立聯繫管道美國職業安全衛生研究所 (NIOSH) 前訊息部門主管 Max. Lum 博士討論國家職業安全衛生研究議程 (NORA) 發展動向，維繫本所續與波蘭國家勞動保障研究院 (CIOP) 國際合作部門 B 君之溝通管道。



照片 3-7：國際安全衛生展示



照片 3-8：美國勞動助卿發表演說

本會仍有勞工安全衛生處傅處長還然之小企業職業衛生管理論文。台灣學者還有台灣大學陳教授志傑、環安技術中心余榮彬總經理，可惜未能於論壇研討會等較

重要場合發表口頭演說。會議中並分與 Dupont 及 Dow 二大國際重要石化集團談話，提及台灣六輕事件，於英國石油深海鑽油平台事件後，國際對於石油煉製等製程風險評估的有效落實與查核十分重視。

表 3-1 台灣學者海報發表的論文清單

文章標題	作者	服務單位
The Performance of Cooperation Between Schools and Exhibition Hall of Occupational Safety and Health in Taiwan	<u>Yi-Chun YU</u> etc.	Institute of Occupational Safety and Health
Instrument of Taiwan OSH Management System	<u>Jung-Pin Yu</u> ² , Hwan-Ran Fuh ¹ , Yu-Tang Lin ¹ , Fu-Ching Chang ²	1 DLSH, CLA 2 SAHTECH
The Effectiveness of Foot Activities on Reduction in Lower Extremity Discomforts During Prolonged Standing Work	<u>Yen-Hui Lin</u> , etc	Chung Shan Medical University
The Study of Surviving of Bacteria on Charcoal Filters under Nutrient, Moisture Regain and Water Content Conditions	<u>Chane Yu Lai</u> etc. <u>Po-Chen Hung</u> , <u>Cheng-Ping Chang</u> .	Department of Occupational Safety and Health, Chung Shan Medical University
Taiwan National Profile on Occupational Safety and Health	<u>Tse Hsueh Chang</u> , Hwan-Ran Fuh, Chan-Chuan Chan	Institute of Occupational Medicine and Industrial Hygiene, National Taiwan University
Aerosol Penetration through Particulate Protective Clothing Materials	<u>Chih-Chieh Chen</u> , etc, <u>Chun-Wan Chen</u>	National Taiwan University

肆、第 8 屆影片與多媒體競賽

勞工安全衛生研究所提送之「勞工安全衛生展示館 E-Book」多媒體，繼 2008 年「關鍵時刻」獲得首獎後，再度以 Taiwan(R.O.C)官方名義參加聯合國所屬機構所主辦之安全衛生競賽，並獲得「評審團獎」殊榮，且是眾多亞洲國家唯一雀屏中選者。網路文告如附件二。

本屆影展(IFMF)計有來自 29 個國家註冊，且大都為歐美先進國家，合計共 220 多部影片參賽。參賽作品經由 10 多位國際評審經二輪選出優秀作品，於大會閉幕時，在全球超過 120 個國家政府、學界、產業界等代表見證下頒獎。同時，大會主席盛讚我國所製作之多媒體具有獨特創意與良好品質，且符合多媒體發展趨勢。

本項多媒體製作，係屬「辦理主動式安全衛生危害預防之數位化宣導服務」工作項目之一，並獲本會 99 年業務創新改進提案獎項。此外，本所所參展影片「我不要香蕉 No More Bananas」、「Egg or Head」、「Robot Inspector」，以及與台中自然科學博物館合作「防災西遊記」等片均被大會指定播放。

本多媒體獲獎後，主辦單位立即表示希望影片能提供全球推廣，其他與會之國際組織、歐美等先進各國亦與我方洽談合作相關事宜。另勞工安全衛生研究所將研議與教育部共同辦理相關技職安全衛生知識宣導及後續全國電子書種子師資推廣教育事宜。

本所於 2008 年獲得第 7 屆影片及多媒體競賽首獎之「關鍵時刻」影片並獲大會製作為會議資料分送參與之 5000 多人。顯示本期安全衛生研究策略規劃中學術發表十分成功。



照片 4-1：本所競賽影片 Robot Inspector



照片 4-2：本所競賽影片 Egg or Head

會後筆者特別與影片評審團主席 P 君致意，並表示本所製作的「我不要香蕉」為 HD 高畫質數位電影，其表示因參與競賽影片數量愈來愈多，製作種類也不同，未來可能要區分不同製作區塊分別選取，也特別提到 No More Bananas 製作非常精良。特別是這次自然科學博物館以皮影戲演工安非常令人印象深刻，但因受限於文化上落差及獎項限制，可能高分落選。

表 4-1 台灣影片及多媒體競賽發表的清單

編號	標題	出品作者	播放時間
F 126	Accident Prevention - Journey	Foundation of National	17:42, Sep. 12

	to the West	Museum of Natural Science	
M 51	Occupational Safety and Health Exhibitions E-Book	Institute of Occupational Safety and Health	15:00-15:30, Sep.12
F 123	Egg or Head	Institute of Occupational Safety and Health	17:13, Sep. 13
F 124	The Robot Inspector	Institute of Occupational Safety and Health	10:46, Sep. 14
F 30	No More Bananas	Institute of Occupational Safety and Health	

台灣參與還有台灣大學陳教授志傑、台中自然科學博物館展示組主任楊中信博士等，及本次經游研究員兼館長逸駿說明並現場操作「安全衛生展示互動多媒體電子書」，獲各國熱烈迴響，特別如羅馬尼亞等資訊缺乏之東歐國家。並於閉幕典禮來自 180 國超過 5000 位來賓見證下，評審團推薦盛讚製作優良，獲頒評審團大獎之榮耀。我國勞工安全衛生展示實力雄厚，連續 2 屆於多媒體競賽榮魁。



照片 4-3：防災西遊記於劇院播映



照片 4-4：筆者介紹電子書



照片 4-5.筆者於競賽處檢視本所動畫



照片 4-6. 筆者演講稿

伍、心得與感想

我國加入聯合國所屬之正式組織，因政治因素向有難度，職業安全衛生議題已是全球化之議題，運用我國於 2008 年第 18 屆世界安全衛生大會皆為國際社會肯定得獎作品與經驗，達成我國與 ILO 及歐盟官方對話。三年一度世界安全衛生大會與 ISSA 為國際上非常重要且為 WHO 與 ILO 認可之非政府組織。於其技術會議上宣揚我國技術水準等科技研究成果，可收事半功倍之效。2005 年為我國近年來首次參加以 2 個單位之整合式攤位，展現近年重大研究成果，各國與會貴賓瞭解我國研究成果，並有官員以技術專家名義參與部分閉門會議；2008 年更首次參與 IFMF 活動並獲首獎，獲得超過 3000 餘位各國參加貴賓之肯定。

本屆 2011 XIX 大會除論文發表、專題演講、論壇、區域組織年會、設備展示，也同時舉辦國際安全影展。根據本所 2009 年至 2012 年勞工安全衛生研究策略規劃，本所以文創與數位學習電子書等研發成果參與國際性學術性或國家等活動國際交流、成果學術發表、參與東南亞及亞洲地區各國職業安全衛生研究機構研討會、與世界各國職業衛生領域之研究機構合作、以領先國際標準數位學習電子書產品並獲評審團獎，及未來規劃參與國際重要安全衛生非官方組織 ISSA 達標。

原本製作規劃參與競賽宣達台灣職業安全衛生預防性文化之動畫片「我不要香蕉 (No More Bananas)」據悉係因片長因素，無法納入競賽決賽。另於多媒體競賽部分雖本所 E-Book 產品無論內容與技術足以列名最優者，也廣獲評審與與會國家代表肯定，希本所發行英文版製作為教材。可見此項比賽之激烈與本所上解能榮獲首獎之不易。

運用職業安全衛生專業技術，及我國勞工安全衛生研究所之發展特色與人力，進行國際非政府組織之交流合作，及發展國際科技交流為我國，特別是本會，對外工作之重點工作。本所特別加強前往歐洲、美國職業安全衛生學術研討會之商展外，並增列前往歐洲參加 ICOH、A+A 等年度出國計畫。World Congress 之成員大多為歐體國家，本次回教世界國家也一同參與，亦可藉由參加本次會議增加我國與歐盟之間之實質關係。本計畫預期藉由參與國際會議，來達成與職業衛生國際社團接觸之目的，並進行勞工安全衛生研究所技術研發成果之宣傳，初步已達成效果，有許多東歐開發中國家特別需要台灣所開發之工業安全衛生預防教育研究成果。似乎可與歐盟或 ILO 討論於歐盟東擴後，本所如何運用研究成果發展安為科技國際能見度。

安全衛生參與成員與台灣熟絡，極度肯定台灣職業安全衛生研究成果與見解，惟不能有長時間有計畫深入對話與論述。本次另邀約之專題演講與研討會均集結重要機構，如 EUOSHA、NSC 等，本所雖有早期掌握且與我有好，世界大會研討會中多由勞資雙方及檢查機構與政府人員一起討論。但如何運用專業技術成就，納為國際採行標準，並進而影響聯合國所屬組織採取惠我之措施，實際參與國際活動，仍上功虧一匱不見台灣籍

人士受邀。歐盟職業安全衛生政府或公立研究機關構量能較充沛，與台灣職安衛專業學術表現相較國際參與發展仍低下，歐陸社會保險機構與職業安全健康學術研究機構成立了自願性的研究機構協同組織 PEROSH，討論資源共享與研究議題策略規劃。台灣職業安全健康專業充實之技術研究量能，仍應受評估獲邀進入對話，及於下一屆世界安全衛生大會中予以重視於重現研究成果於大會。

土耳其於中東地區正努力爭取龍頭地位，於歐債風暴中，土耳其經濟似維持尚可的榮景。這次高峰會中，回教中東國家極力參與支持。我國於東南亞行程中特別會晤香港職業安全協會鄭理事長。而且中國亦正積極推動石化業製程風險評估法律，希望台灣就於亞太最早立法實施的過程及回應國際勞工組織 C170 化學品公約與 C174 重大危害設施公約落實情形，召開國際對話會議。



照片 5-1：晤香港職業安全協會理事長



照片 5-2：街頭巡迴展示電台

陸、建議事項

- 一、建議本所可參照 ILO187 號職業安全衛生框架促進性公約提及國家職業安全衛生研究機構可與專業團體技術流動及結盟夥伴，並籌思研議如何加入歐盟或亞太區域研究機構對話會議，以利落實安全衛生研究發展與國際接軌。
- 二、台灣職業安全衛生、預防職業傷病研究與展示量能充沛，紛獲重要國際社群肯定，由政府宜研議特別加強對有實質外交功能之安全衛生文化建構活動，予以特殊資源安排並於組織改造過程重視台灣數位與文創量能引入勞動社會場域，持續實際發揮國際影響力。

附件一：伊斯坦堡宣言－安全健康工作

ISTANBUL DECLARATION
on Safety and Health at Work

ISTANBUL DECLARATION on Safety and Health at Work

The Ministers of Labour,

Having met in Istanbul, Turkey on the occasion of the Summit of the Ministers of Labour for a Preventative Culture hosted by the Minister of Labour and Social Security of Turkey, held on the 11 of September 2011 prior to the opening of the XIX World Congress on Safety and Health at Work, the participants,

Recalling that generating continuous improvement in working conditions is of paramount importance and promoting the rights of workers to a safe and healthy working environment should be recognized as a fundamental human right,

Recognizing the importance of strengthening sustainable cooperation among national and international organizations and institutions,

Welcoming progress achieved through national and international efforts to improve safety and health at work,

Recognizing the importance of the instruments on safety and health at work of the International Labour Organization (ILO)

Recognizing the historic importance of the Seoul Declaration on Safety and Health at Work adopted by the Safety and Health Summit on 29 June 2008 on the occasion of the XVIII World Congress on Safety and Health at Work,

Declare that:

- 1. Promoting high levels of safety and health at work is the responsibility of ministries of labour and society as a whole, and that ministers of labour must contribute in achieving this goal by ensuring that priority is given to occupational safety and health in national agendas and by building strong and sustained national preventative safety and health culture on a continuous basis,*
- 2. The building and promotion of a sustainable national preventative safety and health culture should be ensured through a system of defined rights, responsibilities and duties where the highest priority is accorded to the principle of prevention and where governments, employers and workers are actively involved in securing a safe and healthy working environment at all levels,*
- 3. The Summit participants state their full and unconditional support to the background and objectives of the Seoul Declaration joining the original signatories in support of the Seoul Declaration, and,*
- 4. The Summit participants commit themselves to take the lead in promoting a preventative safety and health culture worldwide, and to place occupational safety and health high in their national and regional agendas.*



11 September 2011 / Istanbul, Turkey

ISTANBUL DECLARATION on Safety and Health at Work

Amina AFZALI
Afghanistan Minister of Labour,
Social Affairs, Martyrs and Disabled
ISLAMIC REPUBLIC OF AFGHANISTAN



Spiro KSERA
Minister of Labour, Social Affairs
and Equal Opportunities
REPUBLIC OF ALBANIA



Tayeb LOUH
Minister of Labour, Employment and Social Security
PEOPLE'S DEMOCRATIC REPUBLIC OF ALGERIA




Fizuli ALAKBAROV
Minister of Labour
and Social Protection of Population
AZERBAIJAN REPUBLIC



Khandker Masharraf HOSSAIN
Minister of Labour & Employment
PEOPLE'S REPUBLIC OF BANGLADESH



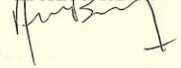
Evelyn Matthei FORNET
Minister of Labour and Social Security
THE REPUBLIC OF CHILE



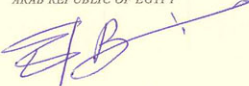
Sitti KASSIM
Minister of Employment,
Labour Vocational Training
and Women Entrepreneurs
UNION OF THE COMOROS



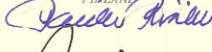
Ali Hassan BAHDON
Minister of Labour for
Reform of the Administration
REPUBLIC OF DJIBOUTI



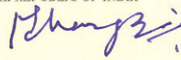
Ahmed Hassan El BORAE'I
Minister of Labour of Arab Republic
Minister of Manpower and Emigration
ARAB REPUBLIC OF EGYPT



Paula RISIKKO
Minister of Social Affairs and Health
FINLAND



Mallikarjun KHARGE
Minister of Labour and Employment of Indi.
THE REPUBLIC OF INDIA



Mahmoud Al KAWAFIN
Minister of Labour
The Hashemite Kingdom of Jordan
THE HASHEMITE KINGDOM OF JORDAN

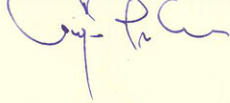


Lee CHAE-PIL
Minister of Employment
and Labour of South Korea
THE REPUBLIC OF KOREA

Abdullah Al AFASY
Minister of Justice
THE STATE OF KUWAIT



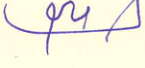
Spiro RISTOVSKI
Minister of Labour and Social Policy
FORMER YUGOSLAVIA REPUBLIC OF MACEDONIA



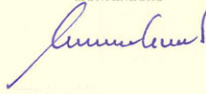
Subramaniam SATHASIVAM
Minister of Human Resources
MALAYSIA



Mayr Miry HAMADY
Minister of Employment
ISLAMIC REPUBLIC OF MAURITANIA



Suad NUMANOVIC
Minister of Social Affairs,
National Solidarity
MONTENEGRO



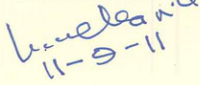
H. E. Jamal RAHMANI
Minister of Labour
THE KINGDOM OF MOROCCO



Maria Helena TAIPO
Ministry of Labour
THE REPUBLIC OF MOZAMBIQUE



Chukwemeka Ngozichinako Wogu
Ministry of Employment
and Vocational Training
REPUBLIC OF NIGERIA



Waqas AKRAM
Ministry of Labour & Manpower
THE ISLAMIC REPUBLIC OF PAKISTAN



Ahmed MAJDALANI
Minister of Labour, PALESTINE
PALESTINE



Nasser Abdullah AL HUMAIDI
Minister of Labour and Social Security
THE STATE OF QATAR



Adel FAKIEH
Minister of Labour
THE KINGDOM OF SAUDI ARABIA



Sada NDIAYE
Minister of Labour and Employment
THE REPUBLIC OF SENEGAL




Rasim LJAJIC
Minister of Labour and Social Policy
REPUBLIC OF SERBIA



Ivan SVETLIK
Minister of Labour, Family and Social Affairs
REPUBLIC OF SLOVENIA



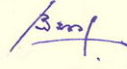
Mohamed Muhiidin MURSAL
Minister of Labour, Youth and Sports
THE SOMALI REPUBLIC



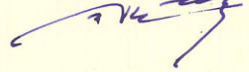
Ginardo KROMOSOETO
Minister of Labour, Technological Development
and Environment
THE REPUBLIC OF SURINAME



Octave Nicose Kuete BROOHH
Minister of Labour, Employment
& Social Security
THE TOGOLESE REPUBLIC



Faruk CELIK
Minister of Labour and Social Security
REPUBLIC OF TURKEY

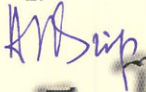


Rukutana MWESIGWA
Minister of Gender, Labour
and Social Development
THE REPUBLIC OF UGANDA



Witnessed by:

Assane DIOP
Executive Director of Social Protection Sector
ILO



Errol Frank STOOVE
President of ISSA



Lee CHAE-PIL
Minister of Employment and Labour of South Korea
THE REPUBLIC OF KOREA



附件二
勞工安全衛生展示電子書獲獎網頁

International Safety Film Festival awards Brazil, Switzerland and UK

ISSA, 14.09.2011 | News



Films from Brazil, Switzerland and the UK have been awarded prizes in the 8th International Film and Multimedia Festival, during a ceremony at the World Congress on Safety and Health at Work, in Istanbul, Turkey, on 14 September 2011. Multimedia productions from Germany, Sweden and Mexico also received prizes.

The 8th International Film and Multimedia Festival received 232 entries from 30 countries on the theme of prevention and work safety. The international juries selected the winners from among the pre-selected 90 films and 70 multimedia presentations based on their effectiveness, the overall treatment of the subject and the overall impression of the film or production.

The results were announced by Festival co-organizer and Chairman of the ISSA's International Section on Information for Prevention, Marc de Graef, and Peter Rimmer, who presided the Festival's film jury.

Video summary



[Film and Multimedia Festival 2011](#)

Film category

First prizes

Do it with prevention...

SESI - Serviço Social da Indústria, Brazil

Giants of Leadership - The Nature of Safety

Lattitude Productions Limited, United Kingdom

Headbanger

Eidgenössische Koordinationskommission für Arbeitssicherheit (EKAS)
Switzerland

Special Awards were also given to the following films:

Almost there

Social Security Organization (SOCISO), Malaysia

Balance

Floating World Films, Norway

Our mind is the key of our life

Tüpras / Turkish Petroleum Refineries Corporation, Turkey

The jury also gave special mention to the Napo series of films produced by the European Agency for Safety and Health at Work, to the Turkish Ministry of Agriculture for their series of safety films, and to companies who made films for multinational workforces.

Multimedia production category

First prize

www.Bättrevar dag.nu

Prevent – Management and Labour Improving Work Environment
Sweden

Second prize

Online Training Course – Safety in Coal Mining (Series)

Ministry of Labour and Social Security
Mexico

Third prize

A Rucksack to avoid back pain

www.rueckenpraevention.de
BGN – Berufsgenossenschaft Nahrungsmittel und Gastgewerbe
Germany

The jury also nominated three other multimedia applications for their excellent quality:

Health Risks at Work DVD application

The Scottish Centre for Healthy Working Lives
United Kingdom

Interactive Multimedia E-Book

Institute of Occupational Safety and Health
Taiwan, China

The Mollie and Walli Website

www.molliundwalli.de
Unfallkasse Hessen
Germany

The [International Film Festival](#) is jointly organized by two of the International Social Security Association's Prevention Sections: "[Electricity](#)" and "[Information](#)" every three years, as part of the World Congress on Safety and Health at Work.

Further information

International Film and Multimedia Festival: *Media Catalogue* (full list of Festival entries)
[[2-IFMF Catalogue Istanbul 2011.pdf](#) 2.56 MB]



Winners of the International Film- and Multimedia Festival 2011

Region: International

Type: News

Events: [XIX World Congress on Safety and Health at Work](#)

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附錄一
Occupational Safety and Health Exhibitions E-Book
(演講投影片)

勞工安全衛生
展示館電子書

Exhibitions Hall of Occupational Safety and Health E-book
IOSH 勞工安全衛生研究所

Occupational Safety and Health Exhibitions E-Book

By Yu Yi-Chun

 勞工安全衛生研究所
INSTITUTE OF OCCUPATIONAL SAFETY & HEALTH

Country : TAIWAN





Contents

- About Us
- Trend
- Ideas
- Features
- Demonstration

About Us



- The Institute of Occupational Safety and Health (IOSH) is a research institute under the jurisdiction of the Council of Labor in Taiwan.
- IOSH's major missions include the study and analysis, using the latest science and technology, of various risk factors in the working environment that may result in occupational injuries, and the development of solutions.
- IOSH is dedicated to the research, analysis, and improvement of all the factors and issues in the working environment that could potentially do harm to labor safety and health.



An open book is shown from a high angle, with a hand pointing to a page. The background is a bright blue sky with white stars and clouds. The book's pages are white, and the cover is a dark green color. The hand is positioned in the upper left quadrant, with the index finger pointing towards the center of the page. The word 'Contents' is written in a large, bold, red font on the left side of the page, with a reflection effect below it. Below the title is a list of five items, each preceded by a small black dot. The background of the slide is a gradient from light blue at the top to a bright green at the bottom, suggesting a grassy field.

Contents

- About Us
- Trend
- Ideas
- Features
- Demonstration

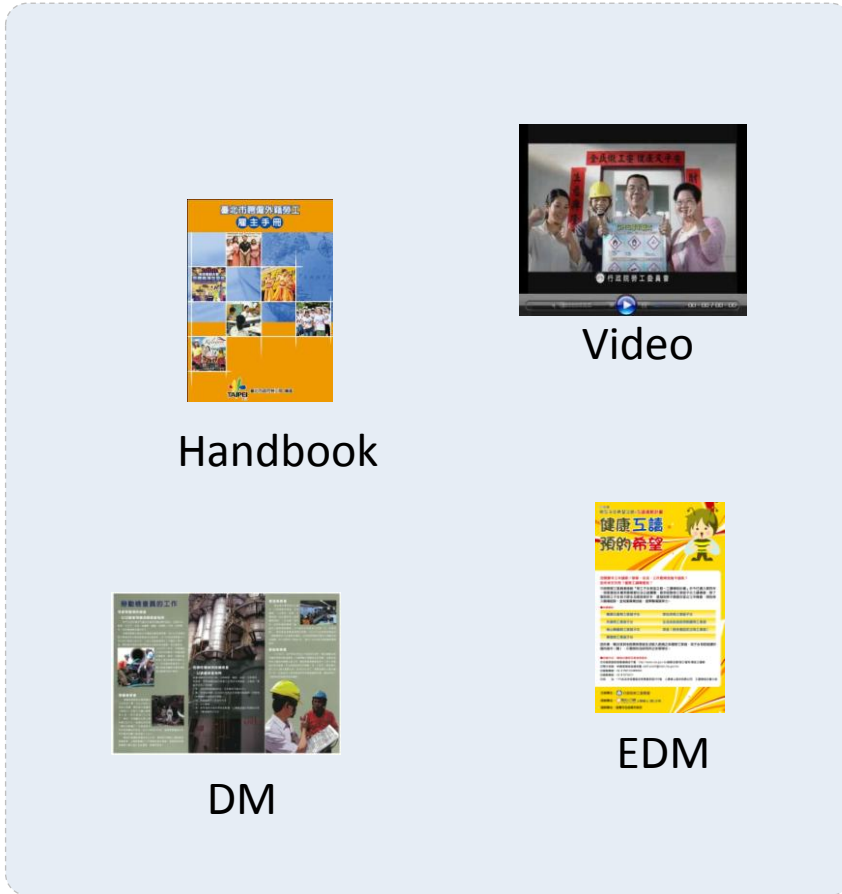
Fast-Growing E-Reading Markets





Overall Promotion Method

Multimedia



E-Book



New Media



Traditional Media

Effectiveness



An open book lies on a green lawn under a blue sky with white clouds and stars. A hand points to the right page. The word 'Contents' is written in red on the left page, with a reflection effect below it. A list of topics is also on the left page.

Contents

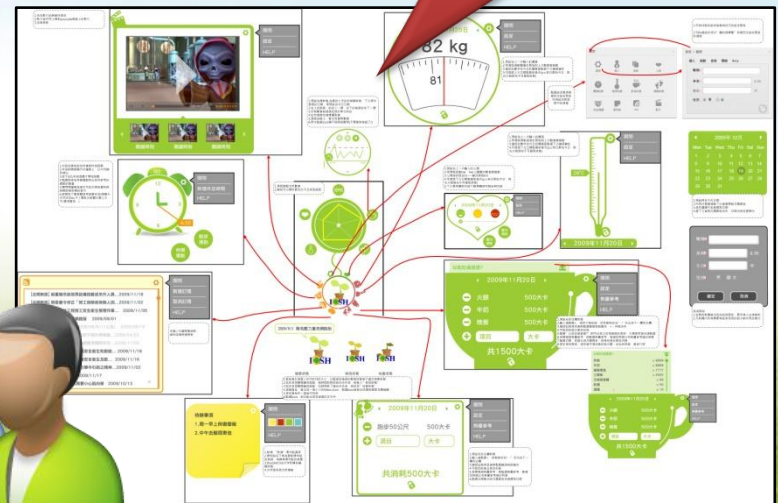
- About Us
- Trend
- Ideas
- Functions
- Demonstration

Information Channel

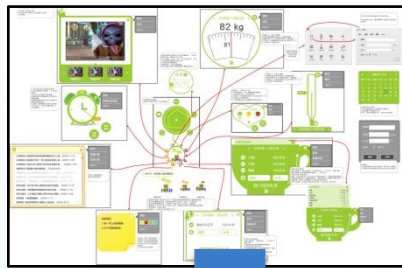


Online Install

User Side Desktop Tool

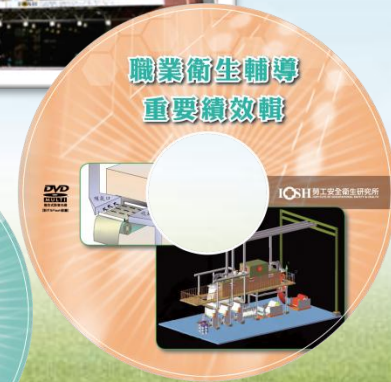


Information Channel



Desktop Tool

E-Books



Interactive Multimedia: E-Book



- Digital reading
- Digital learning
- Widespread tablet PCs use in the future

Multimedia & Interactive

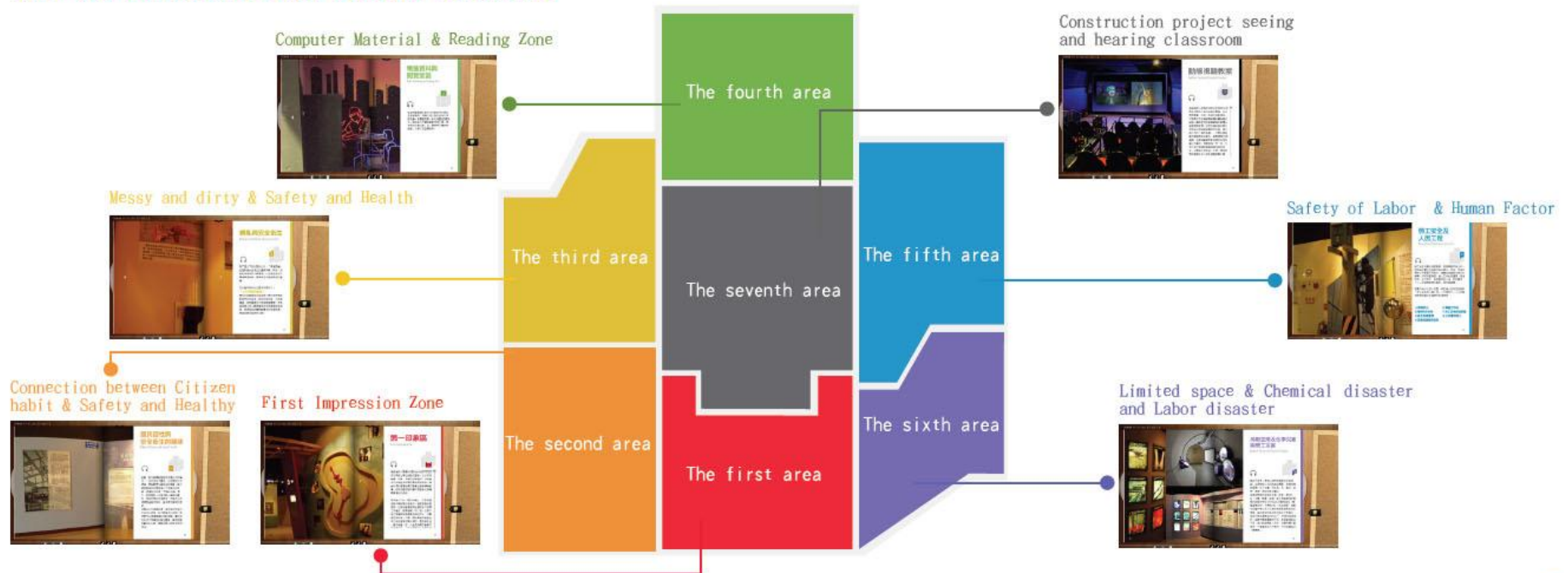
- Multimedia
 - Audio
 - Video
 - Images: still & moving
 - Animations

- Interactive
 - Interactive study
 - Easy-to-use games
 - Text search function
 - Personal notes



Visualization features accessible + E-Reading

Hall and Division E-Book Content Structure



Widespread Access



- Easy to Install
 - Online install
 - Direct download & install
 - CD-drive

Compatibility

- PCs with Windows or Mac.
- Touch pad devices with Windows or Mac.
- iOs or Android system in the Future.

A hand is pointing at an open book lying on a green lawn. The background is a blue sky with white stars. The book's pages are white, and the cover is dark. The word 'Contents' is written in red on the left page.

Contents

- About Us
- Trend
- Ideas
- Features
- Demonstration

Features (1/4)



① Skip Pages

② Index

Features (2/4)



- ③ 180° Degree Virtual Environment
- ④ Tool Bar (Convenience Paste) Personal Note
- ⑤ Skip Pages
- ⑥ Sound Play

Features (3/4)



- 7 Video playing
- 8 Interactive Game Zone
- 9 Presentation of Animation



Features (4/4)



10 Drag Material from E-Book

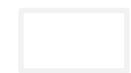
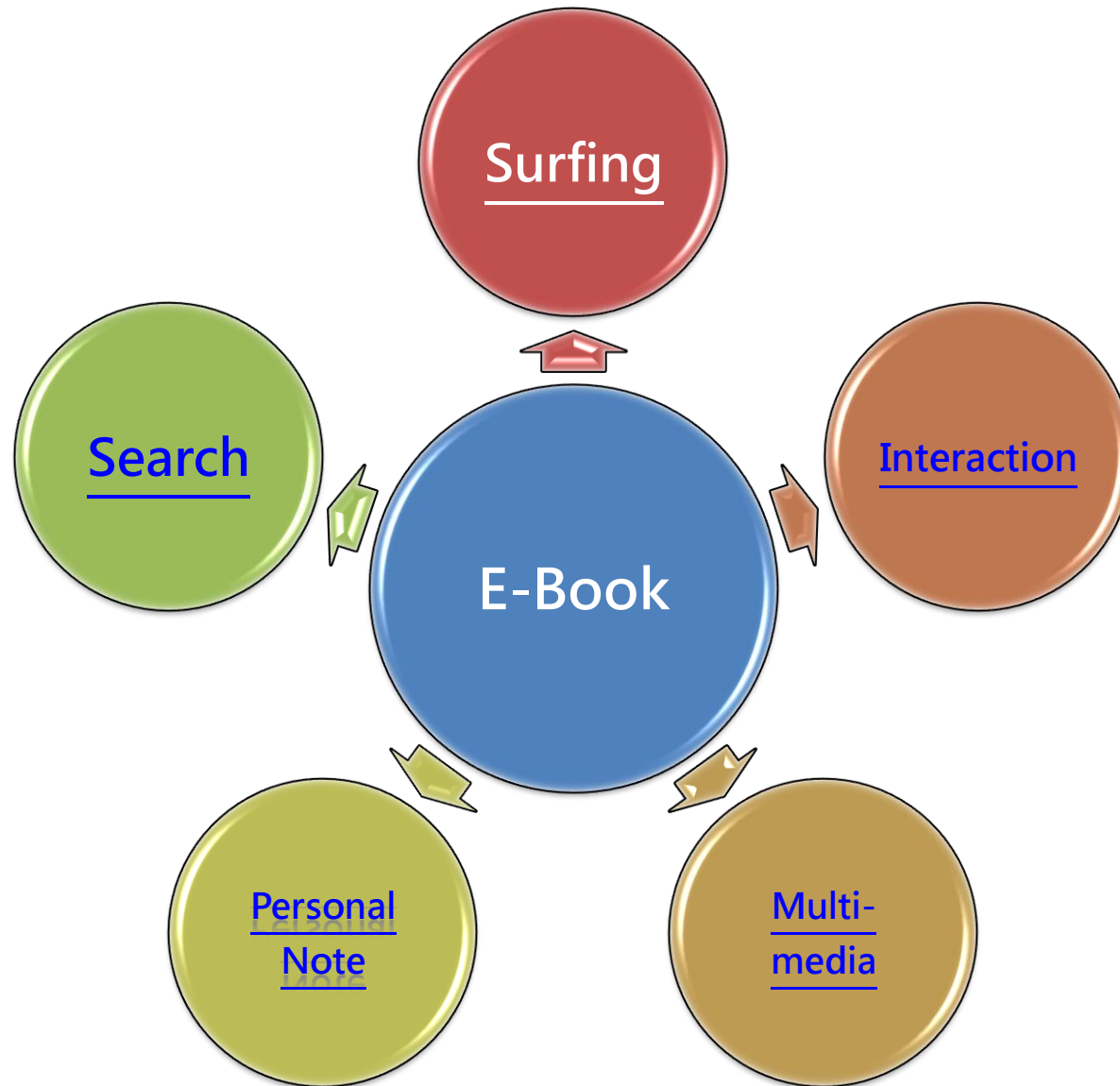
11 Snapshot at my Notebook





Contents

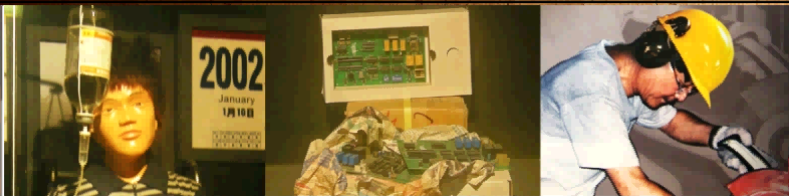
- About Us
- Trend
- Ideas
- Features
- Demonstration



Flipping & Surfing



Interactive



為了讓您能夠體察個人不良習性的影響，透過三分鐘短片「阿憲的故事」，我們看到一位原本熱心有為的青年，因為不良的生活習慣，而在工作現場發生意外事故，造成無可挽回的悲劇。每個生活的小細節與當中所培養的心態，往往在工作中影響著我們甚多，誰也說不準造成的傷害將會是多大。因此，時常反省自身在工作上的態度與心態，將是防止災害發生前的重要的一步。



工作態度大考驗QA

看完了「阿憲的故事」之後，請您做個簡單的測驗，加深您對於「國民習性」中不良的習性能有更多的印象，簡單檢測您是否具有優良的習慣與判斷，也藉這小小的測驗反省一下近期的工作習慣與態度是否也很正確喔！

題目四：

在檢查電器線路是否安全時，你會採取什麼措施？

1

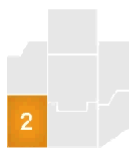
關掉總電源，再逐段仔細檢查。

2

藝高人膽大直接檢查線路。

3

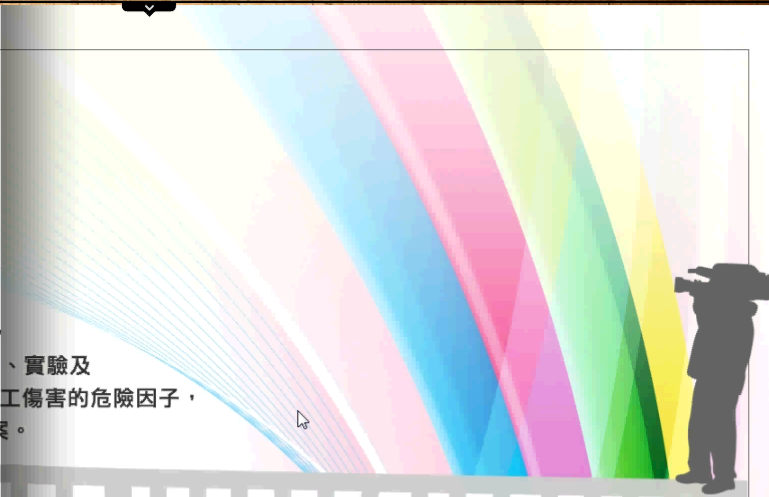
運氣沒那麼差，檢查就免了



Multi-Media

勞研所簡介

勞工是臺灣經濟成長背後的沉默巨人，
勞工安全則是維持企業運作的齒輪，
隸屬於行政院勞工委員會的勞工安全衛生研究所
(以下簡稱 **勞研所**) 是為了確保勞工安全而成立，
主要的任務為運用最新的科學與技術，調查、實驗及
分析各種工作環境當中，可能造成勞工傷害的危險因子，
並針對問題提出解決方案。



Personal Note

不良的個人習慣以及不正確的觀念，往往會增加意外事故發生的機會。相較於國外勞工尊重制度的管理，自我安全要求嚴謹，並且注重手法的文化習性；我國勞工比較常見到：



髒亂的工作環境



取巧的工作態度



散漫的人生觀

成。檢核一下，你是否有以下錯誤的觀念：

觀念檢核表

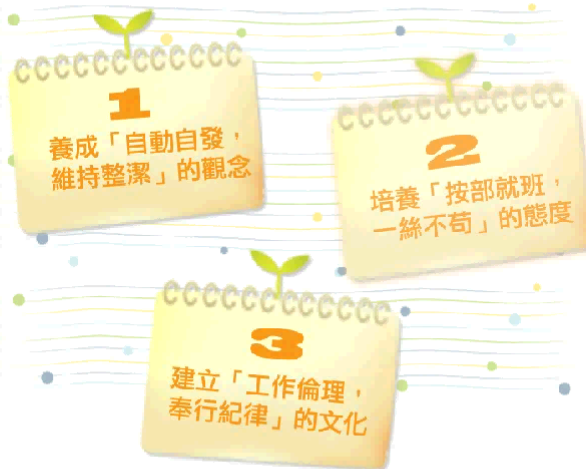
請用 勾選

- 我已經「經驗老、技術佳」，什麼規定只要「參考」一下就「好了」。
- 發生意外是「運氣不好」，而我才不會那麼倒楣
- 事情都做不完了，還管什麼「安全衛生」
- 守規矩只會被別人笑，所以只要「意思意思」就可以



其實，「安全衛生」是一種觀念與態度，更是一種文化。為了自己、家人以及別人的幸福，我們一定要有「尊重生命，勝於賺錢」的觀念。每位雇主應該遵守安全衛生法令，維持良好的工作環境，提供教育訓練以及必要的安全衛生設備。

而勞工朋友更應該要求自己：



Searching

目錄

電腦資料與閱覽室區

Data Searching and Reading Area

P.25

髒亂與安全衛生

Dirtiness and Disorder Safety and health

P.15

國民習性與安全衛生的關係

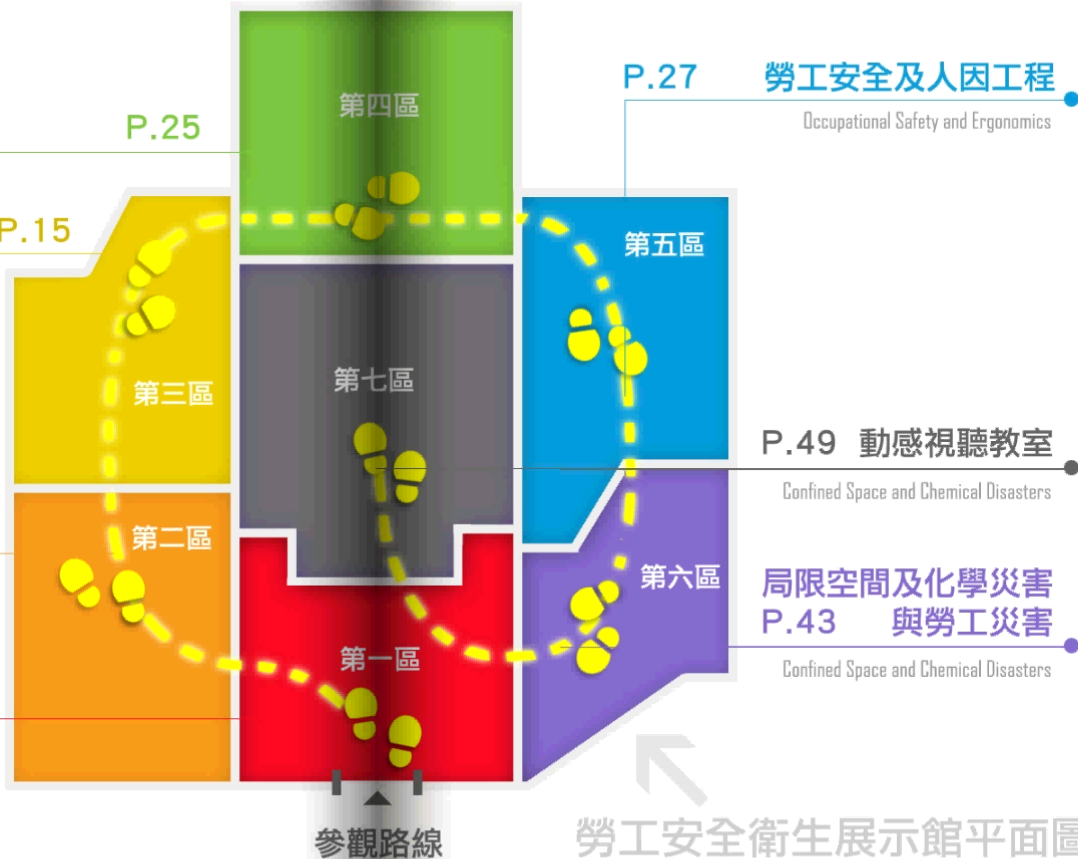
Habitual Behavior and safety & Health

P.9

第一印象區

First Impression Area

P.7



請輸入查詢的關鍵字！



Publisher

- Taiwan's Institute of Occupational Safety and Health
- <http://www.iosh.gov.tw>



Producer

- UTRUST Technology Co., Ltd.
- <http://www.utrust.com.tw>





Thank You

附錄二

**The Performance of Cooperation between Schools and Exhibition Hall of
Occupational Safety and Health in Taiwan: School to Work Perspective
(海報發表)**

The Performance of Cooperation between Schools and Exhibition Hall of Occupational Safety and Health in Taiwan: School to Work Perspective

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Exhibition Division, Institute of Occupational Safety and Health, Taiwan

1. Purpose

Regarding the implementation of occupational safety and health education in technological and vocational education of Taiwan, the “Safety and Health Regulations of Experimental Places in Schools” in the Safety and Health Act (Legislative Yuan, 2002) enacted by the Ministry of Education (2002) indicate that schools should implement safety and health educational training for workers and students of the experimental places. In addition, the “Final Report of Planning of Labor Rights and Labor Safety and Health Curriculum in Technological and Vocational Education” of the Ministry of Education (2000) established the instructional objectives related to safety and health. Thus, safety and health are included in the curriculum of technological and vocational education in high schools (Pan, 2004). Regarding higher technological and vocational education, the implementation of occupational safety and health education is recognized by evaluation on technology universities (Lin, 2008). Occupational safety and health curriculum of technological and vocational system includes professional courses, general education (Hsin, Chang, Lin & Wang, 2010) and off-campus visit (Muzha Vocational High School, 2009). Implementation of occupational safety and health courses is divers, and it aims to enhance students’ learning motive and interest (Worick, 1975).

In the other words, implementation of occupational safety and health education concerns a company’s sustainable development. But promotion of Taiwan occupational safety still revolves around occupational safety and health cognition education. The result can only arrive at “awareness” of occupational safety and health and may not be able to translate into individual behavior. As a result, this study aimed to discuss the effects of cooperation between Taiwan’s secondary vocational education and the Exhibition Hall of Occupational Safety and Health (EHOSH) outside school, in school to work (STW) occupational health education and training. Research purposes are shown below.

- A. To analyze the effects of planning content of occupational safety and health courses at technological and vocational schools and the current situation of their implementation.
- B. To describe cooperation models of the Ministry of Education and the EHOSH in technological and vocational education.
- C. To discuss the effects of STW cooperation implementation.

2. Instrument-Method

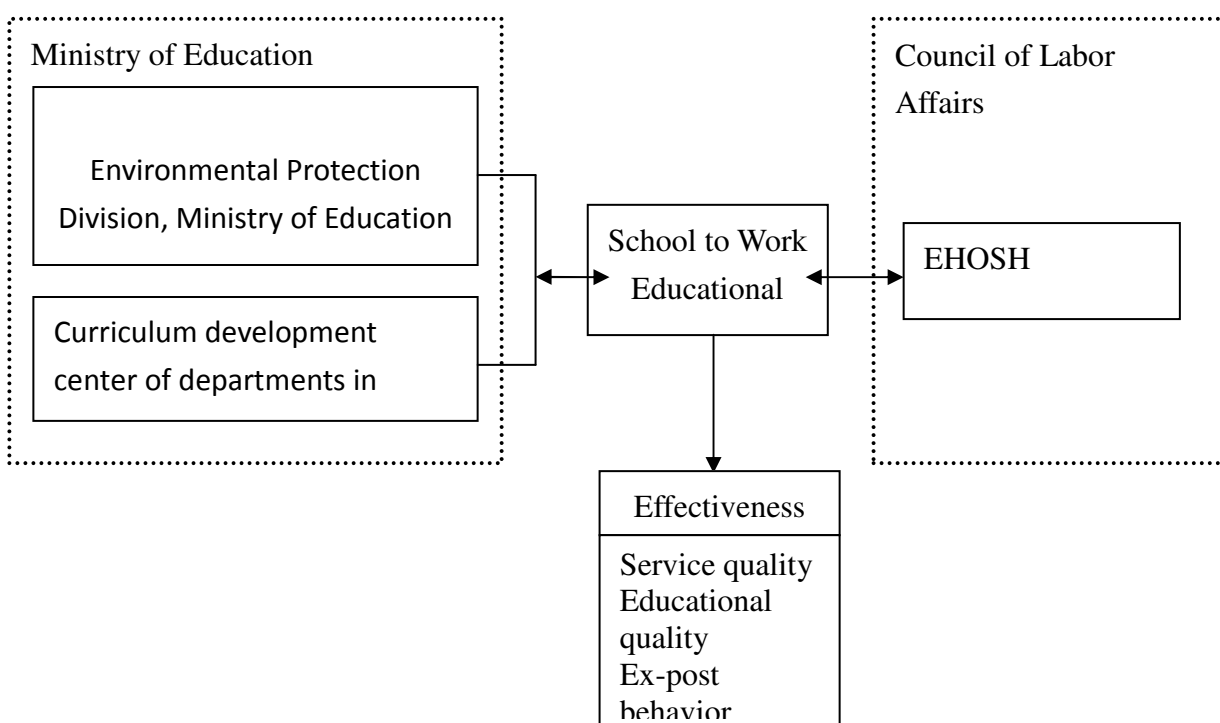
2.1 Framework

This study aims to probe into performance of cooperation between educational training of School to Work occupational safety and health in technological and vocational education of Taiwan and EHOSH. In schools, construction of occupational safety and health education policy and curriculum is managed by Ministry of Education. However, implementation of occupational safety and health education, including instructional methods and teaching materials will follow school-based curriculum.

Currently, implementation of occupational safety and health courses include course involvement, professional course, general education, off-campus visit, etc. Off-campus visit allows students to learn in real situations (Lin & Wang, 2009) and it is the best model for individuals to obtain occupational safety and health knowledge. Learners are in the context constructed in the situations (Brown, Collins & Duguid, 1989). It can effectively enhance individuals' competence of horizontal moving and enhance learning effectiveness (Liao, 2006; Chen, 2007).

In Taiwan, School to Work educational model of occupational safety and health education is based on the cooperation between schools and EHOSH. Off-campus visit funds of occupational safety and health education are subsidized by Ministry of Education. EHOSH of Council of Labor Affairs provides professional lecturers and technology occupational safety and health exhibits, including relationship between the people's habits and safety and health, noise, falling, electricity danger, chemical danger, biologic danger, fire prevention, restricted space, human factors engineering and prevention tool use, in order to strengthen students' occupational safety and health cognition.

This study conducted a survey concerning "exhibition quality and service quality of occupational safety and health" on students who have visited the sites of occupational injuries and operate prevention instruments related to occupational safety and health in EHOSH, in order to learn the implementation effectiveness of School to Work.



2.2 Method

This study aims to probe into performance of cooperation between educational training of School to Work occupational safety and health in technological and vocational education of Taiwan with EHOSH. First, by content analysis, this study probes into governmental publication and websites of occupational safety and health education, in order to recognize the curriculum and implementation of occupational safety and health in technological and vocational schools.

Finally, by random walk sampling, this study selects 874 students of School to Work educational model for questionnaire survey of “exhibition quality and service quality of occupational safety and health” in order to realize the implementation effectiveness of School to Work educational model.

2.3 Instrument

The questionnaire includes “educational quality”, “service quality” and “occupational safety and health sharing”. For “educational quality”, it demonstrates fit of occupational safety and health knowledge presentation by information technology in exhibition hall (EHOSH) and PEOU of exhibition technology as well as students’ PU of occupational safety and health knowledge provide by exhibition hall through School to Work educational model. “Service quality” indicates tangible and intangible service quality provided by exhibition hall (EHOSH). For “ex-post behavior”, it tries to find if students have the behavior intention to share and spread occupational safety and health concept after School to Work educational model.

Educational quality includes “Task-Technology Fit (TTF)”, “perceived ease of use (PEOU)”, “perceived usefulness (PU)” and 13 items; service quality includes tangibility, reliability, guarantee and care and 14 items.

After hierarchical factor analysis by the instrument, regarding construct validity of questionnaire, explained variance of constructs all reach 60% and reliability is above .70. In other words, quality of the instrument is recognized. Construct validity and reliability are shown below.

Table Statistics of construct validity and reliability of service quality

Construct	Sub-Construct	items	KMO	Bartlett's Test of Sphericity	Loading Factor	Eigen Value	Construct Validity	Reliability
Service quality	Tangibility	Tour guides have explaining model and skill.	.855	2242.662	.929	3.270	81.761	.925
		Tour guides have professional knowledge of occupational safety and health .			.921			
		Tour guides' explanation can enhance my understanding of occupational safety and health.			.913			
		Tour guides have neat clothing and appearance.			.852			
		Guiding time of exhibition hall is precise..			.906			
	Reliability	Guiding route of exhibition hall is smooth.	.733	1030.250	.885	2.373	79.805	.866
		Tour guides can properly respond to my questions.			.877			
		Exhibition hall personnel are well-mannered.			.896			
	Guarantee	Exhibition hall personnel are reliable.			.882			
		Exhibits and facilities of exhibition hall are operated properly.	.776	1548.534	.823	2.890	72.243	.867
		Souvenirs of exhibition hall (learning CD and stationery) are useful.			.795			
		Reservation system of visit in exhibition hall in friendly.			.916			
Care	Exhibition hall personnel are friendly.	.749	1272.925	.916	2.486	82.856	.896	
	Exhibition hall personnel provide individual assistance.			.898				

Statistics of construct validity and reliability of educational quality

Construct	Sub-construct	Items	KMO	Bartlett's Test of Sphericity	Loading Factor	Eigen Value	Construct Validity	Reliability							
Educational quality	Task-Technology Fit (TTF)	Exhibit operation in exhibition	.941	5040.138	.916	5.563	79.469	.956							
		hall can enhance my knowledge related to labor safety and health.													
		For me, exhibits in exhibition hall indicate the latest labor safety and health information.													
		Exhibition hall easily provides labor safety and health knowledge.													
		Information exhibits of exhibition hall meet the requirement of labor safety education.													
		Exhibits of exhibition hall meet my goal of visit.													
		It is easy to use exhibits in exhibition hall.													
		Because of the need for labor safety educational training, I will use information exhibits in exhibition hall in the future.													
		Perceived ease of use (PEOU)							It is easy to use exhibits in exhibition hall.	.752	1495.591	.926	2.563	85.436	.915
									It is convenient to use exhibits in exhibition hall.						
	Technology of exhibition hall is convenient for visit and learning.														
Perceived usefulness (PU)''		Exhibits of exhibition hall enhance the concept of safety and health.	.757	1612.380	.941	2.601	86.707	.923							
		Exhibits of exhibition hall are useful for my live.													

Exhibits of exhibition hall are useful to avoid the injuries and accidents. .917

Statistics of construct validity and reliability of occupational safety and health sharing

Construct	items	KMO	Bartlett's Test of Sphericity	Loading Factor	Eigen Value	Construct Validity	Reliability
Occupational safety and health sharing	You will share your visit experience with family members.	.814	2701.459	.943	3.360	83.997	.934
	You will share your visit experience with family friends.			.936			
	You will recommend it to relatives and friends.			.922			
	You will revisit the hall.			.863			

3. Finding

3.1 Analysis on service quality of occupational safety and health

After questionnaire survey, as shown in the table below, regarding School to Work educational model, means of items of service quality in EHOSH are above 4. In other words, service quality of EHOSH is identified by teachers and students in technological and vocational education. Students strongly agree that “tour guides have professional knowledge of occupational safety and health knowledge”, “exhibition hall personnel are well-mannered”, “exhibition hall personnel are friendly” and “exhibition hall personnel are reliable”.

Construct	Items	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Mode	Ranking
Tangibility	Tour guides have explaining model and skill	9	5	65	300	324	4.32	5.00	6
	Tour guides have professional knowledge of occupational safety and health	9	2	43	287	362	4.41	5.00	1
	Tour guides' explanation can enhance my understanding of occupational safety and health..	10	5	46	309	333	4.35	5.00	5

	Tour guides have neat clothing and appearance.	10	4	69	329	291	4.26	4.00	8
Reliability	Guiding time of exhibition hall is precise.	8	13	117	342	223	4.08	4.00	13
	Guiding route of exhibition hall is smooth.	7	4	80	332	280	4.24	4.00	9
	Tour guides can properly respond to my questions..	8	5	51	337	302	4.31	4.00	7
Guarantee	Exhibition hall personnel are well-mannered.	8	3	56	284	352	4.38	5.00	2
	Exhibition hall personnel are reliable.	8	4	58	289	344	4.36	5.00	4
	Exhibits and facilities of exhibition hall are operated properly.	9	19	108	291	276	4.15	4.00	12
	Souvenirs of exhibition hall (learning CD and stationery) are useful.	7	10	173	297	216	4.00	4.00	14
care	Reservation system of visit in exhibition hall is friendly.	7	4	82	332	278	4.24	4.00	9
	Exhibition hall personnel are friendly.	7	3	55	292	346	4.38	5.00	2
	Exhibition hall personnel provide individual assistance.	6	5	81	332	279	4.24	4.00	9

3.2 Analysis on educational quality of occupational safety and health

After questionnaire survey, as shown in table below, regarding School to Work educational model, means of items in educational quality of EHOSH are above 4. In other words, educational quality of EHOSH has been identified by teachers and students of technological and vocational education. The scores of “exhibits of exhibition hall are useful to avoid the injuries and accidents”, “exhibits of exhibition hall enhance the concept of safety and health”, “technology of exhibition hall is convenient for visit and learning”, “exhibit operation in exhibition hall can enhance my knowledge related to labor safety and health” and “exhibition hall easily provides labor safety and health knowledge” are the highest

However, as to technology education, “it is easy to use exhibits in exhibition hall”, “exhibits in exhibition hall indicate **the latest** labor safety and health information”, “it is convenient to use exhibits in exhibition hall” and “because of the need for labor safety educational training, I will use information exhibits in exhibition hall in the future” should be improved.

Construct	items	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Mode	Ranking
Task-Technology Fit (TTF)	Exhibit operation in exhibition hall can enhance my knowledge related to labor safety and health.	7	3	57	325	311	4.32	4.00	4
	For me, exhibits in exhibition hall indicate the latest labor safety and health information.	7	4	83	332	277	4.23	4.00	10
	Exhibition hall easily provides labor safety and health knowledge.	7	3	62	327	304	4.31	4.00	5
	Information exhibits of exhibition hall meet the requirement of labor safety education.	7	6	62	328	300	4.29	4.00	7
	Exhibits of exhibition hall meet my goal of visit.	7	2	67	339	288	4.28	4.00	8
	It is easy and convenient to use exhibits of exhibition hall.	7	6	83	310	297	4.26	4.00	9
	Because of the need for labor safety educational training, I will use information exhibits in exhibition hall in the future.	8	5	92	323	275	4.21	4.00	13
Perceived ease of use (PEOU)	It is easy to use exhibits in exhibition hall.	7	4	81	336	275	4.23	4.00	10
	It is convenient to use exhibits in exhibition hall	9	8	77	331	278	4.22	4.00	12
	Technology of exhibition hall is convenient for visit and learning.	9	2	54	322	316	4.33	4.00	2

Perceived usefulness (PU)	Exhibits of exhibition hall enhance the concept of safety and health.	8	5	55	314	321	4.33	5.00	2
	Exhibits of exhibition hall are useful for my live.	8	4	61	320	310	4.31	4.00	5
	Exhibits of exhibition hall are useful to avoid the injuries and accidents.	7	4	46	325	321	4.35	4.00	1

3.3 Analysis on occupational safety and health sharing

After questionnaire survey, as shown in table below, regarding School to Work educational model, means of most items of students' occupational safety and health sharing are above 4. Scores of "you will share your visit experience with family members" and "you will share your visit experience with friends" are the highest.

Construct	items	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Mode	Ranking
Ex-post behavior	You will share your visit experience with family members.	8	14	95	315	271	4.18	4.00	1
	You will share your visit experience with family friends.	8	12	103	304	276	4.18	4.00	1
	You will recommend it to relatives and friends.	9	16	125	287	266	4.12	4.00	3
	You will revisit the hall.	14	25	168	262	234	3.96	4.00	4

4. Discussion

4.1 Service quality:

In School to Work educational model, service quality of EHOSH is identified by teachers and students. In other words, service quality of EHOSH can enhance educational quality of occupational safety and health.

However, the following aspects should be improved: "guiding time of exhibition hall is precise", "exhibits and facilities of exhibition hall are operated properly" and "Souvenirs of exhibition hall (learning CD and stationery) are useful". As to "guiding time of exhibition hall is precise", since it is difficult to control students' experiential activities and in Taiwan, students' visit time only lasts for half day, after taking out transformation time, the rest time on occupational safety and health education will be

insufficient. Regarding “exhibits and facilities of exhibition hall are operated properly”, educational quality analysis shows that EHOSH is the exhibition hall mainly upon technology and information and occupational safety and health content is mostly presented by interactive information technology. However, scores of “it is easy to use exhibits in exhibition hall” and “it is convenient to use exhibits in exhibition hall” are the lowest. Therefore, EHOSH should make efforts on human technology. As to “souvenirs of exhibition hall (learning CD and stationery) are useful”, since learning CD and stationery are shown by animation, they might not effective to enhance occupational safety and health behavior.

4.2 Educational quality

In School to Work educational model, educational quality provided by EHOSH has been identified by teachers and students. In other words, educational quality of cooperation between EHOSH and Ministry of Education is effective.

However, education technology should be improved. For instance, “exhibits in exhibition hall indicate **the latest** labor safety and health information” should refer to occupational safety and health issues in the world, such as OSH management system.

4.3 Occupational safety and health sharing

In School to Work educational model, students can enhance their knowledge and competence of occupational safety and health. Spread of occupational safety and health knowledge and construction of occupational safety culture will also be strengthened.

5. Conclusion

Based on statistical analysis, the conclusions on School to Work educational model are shown below:

- In School to Work educational model, EHOSH offers high-quality service quality to enhance educational quality of occupational safety and health.
- In School to Work educational model, occupational safety and health knowledge provided by EHOSH are convenient, useful and can avoid occupational injuries.
- School to Work educational model can enhance the spread of occupational safety and health knowledge to construct the occupational safety culture.

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