科技部補助專題研究計畫成果報告
期末報告

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深化探索跨越性別鴻溝：檢視性別刻板印象認知對不同性別年輕成人使用遊戲式英語電子書之互動系統偏好、個人學習差異，產生認知娛樂性、學習意向及電子口碑學習推薦效果(第2年)

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計 畫 類 別 ： 個別型計畫
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執 行 單 位 ： 元智大學管理學院

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中 華 民 國 104 年 10 月 27 日

中 文 摘 要 ： 本研究初步成果，檢視「跨越」性別刻板印象在新科技與語言學習之可行性評估，並達成延續性理論模式建構與驗證。換言之，此為深化階段，檢視102年主持人國科會專案建置之遊戲式英語電子書原型，並以使用與滿足，以及情境學習理論建構遊戲式英語電子書學習理論模式，採實驗法檢視性別刻板印象認知對不同性別年輕成人（大學三、四年級生與上班族［畢業三年內］）使用遊戲式英語電子書之使用與滿足使用與滿足，以及產生何種認知娛樂性與學習意向之比較研究。此外，評估消弭性別科技與語言學習刻板印象。

中 文 關 鍵 詞 ： 深化探索跨越性別鴻溝、性別刻板印象、遊戲式英語電子書、年輕成人延續學習

英 文 摘 要 ： The impact of mobile phones on our daily lives over the past few years has increased dramatically. However, there has been little research that evaluates gender differences in users' actual preferences for mobile game content, and the factors that influence entertainment and mobile-learning habits. To fill this void, this study examines different gender users' experience of mobile English learning game adoption in order to identify the areas of development in Taiwan, using Uses and Gratification Theory, Expectation Confirmation Theory and experiential value. The integration of these theories forms the basis of an extended research concept. Users' responses to questions about cognitive perceptions, confirmation, gratifications and continuous use were collected and analyzed with various factors derived from the theories

英 文 關 鍵 詞 ： Bridging the gender gap, Gender stereotype, Game-based English electronic book, Young adult extended learning

科技部補助專題研究計畫成果報告
（□期中進度報告/☑期末報告）

（計畫名稱）深化探索跨越性別鴻溝：檢視性別刻板印象認知對不同性別年輕成人使用遊戲式英語電子書之互動系統偏好、個人學習差異，產生認知娛樂性、學習意向及電子口碑學習推薦效果

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計畫主持人：陳志萍
共同主持人：
計畫參與人員：陳韻如、葉翰霖、劉乃寧、陳禹丞

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中　華　民　國　104　年 10　月　27　日

成果報告全文：

深化探索跨越性別鴻溝：檢視性別刻板印象認知對不同性別年輕成人使用遊戲式英語電子書之互動系統偏好、個人學習差異，產生認知娛樂性、學習意向及電子口碑學習推薦效果

Extended Exploration of Bridging the Gender Gap: To Investigate the impact of Gender Stereotypes on Young Adults toward Perceived Playfulness, Learning Intention, and Electronic Word-of-Mouth via Game-Based English Electronic Book Learning of Interactive Preferences and Individual Learning Differences

ABSTRACT

The impact of mobile phones on our daily lives over the past few years has increased dramatically. However, there has been little research that evaluates gender differences in users' actual preferences for mobile game content, and the factors that influence entertainment and mobile-learning habits. To fill this void, this study examines different gender users' experience of mobile English learning game adoption in order to identify the areas of development in Taiwan, using Uses and Gratification Theory, Expectation Confirmation Theory and experiential value. The integration of these theories forms the basis of an extended research concept. Users' responses to questions about cognitive perceptions, confirmation, gratifications and continuous use were collected and analyzed with various factors derived from the theories.

Keywords: Expectation confirmation theory, Experiential value, Gender difference, Mobile game, Uses and Gratification

1. Introduction

The impact of mobile phones on our daily lives over the past few years has increased dramatically. For many of us, interacting with a mobile phone has become a daily experience. From communicating to correspondence to entertainment, the personal mobile phone is fast becoming our first resource of choice. What are the determinants of mobile English-learning gameplay adoption by different genders of Taiwanese youth? To address this question, we ground our research framework in three theoretical models. First, the core attitudinal model is adapted from Uses and Gratifications Theory (UGT). Second, Expectation Confirmation Theory (ECT) has received considerable attention in both pre- and post-behavior affect confirmation, which in turn influences satisfaction and continuance intention (Shin, 2011). Third, antecedents of perceived playfulness and perceived usefulness are based on the experiential values proposed by Mathwick and her colleagues (2001), as well as other antecedents of perceived mobile computer anxiety (Siau, Lim, and Shen ,2001) and perceived second language anxiety.

Uses and Gratifications Theory (UGT) presupposes prior adoption of an innovation and concerns itself with the individual user's motivations to continue the use of that technology (Stafford, Stafford, and Schkade, 2004). Nowadays, UGT assumes that mobile-learning (m-learning) resources may compete with other information sources for gratifications of users' learning needs. This approach focuses on users' "active" participation by assessing their reasons for using m-learning resources to the disregard or in combination of other educational resources. However, Mondi, Woods, and Rafi (2008) argue that the UGT is too simplistic to accurately account for the gratification sought or obtained by users from the media. In response to this

criticism, expectation confirmation theory (ECT) was suggested in this study to extend and add details to the basic tenets of UGT. Furthermore, applying the ECT framework to the research of how gender differences of mobile users affect their continuance intention is appropriate because gender differences are cognitive beliefs salient to users' behavior of mobile English-learning gameplay adoption. Given that mobile English-learning gameplay users' continuance intention plays a critical role in reuse, understanding how the entrenched cognitions and emotional factors of users affect their continuance behaviors becomes important.

2. Hypotheses

2.1 Perceived mobile computer anxiety

Anxiety about using computers has been shown to have a strong impact on the use of computers (Parayitam, Desai, Desai, and Eason, 2010). The authors (Parayitam, et al., 2010) evidence the impact of the moderating variable on computer anxiety, satisfaction, and stress on undergraduate students in a US university. The study of Piccoli, Ahmad, and Ives (2001) showed that computer anxiety significantly affects learning satisfaction in e-learning. Computers are media tools in e-learning environments and fears of computer usage would certainly hamper learning satisfaction (Piccoli, et al., 2001).

Furthermore, a number of previous studies found that women were more computer anxious than men (Chou, 2003). However, many others found no significant differences between men and women with regard to computer anxiety (Popovich, Gullekson, Morris, and Morse, 2008). As for computer attitudes, in some cases it was found that men held more positive attitudes than women (Liaw, 2002). Others found that men and women did not differ significantly in their attitudes toward computers (Kesici, Sahin, and Akturk, 2009).

In this study, perceived mobile computer anxiety is characterized as an affective response that can influence utilization of mobile English-learning gameplay and performance on tasks that implicate use of mobile technologies (Barbeite and Weiss, 2004). According to previous computer or Internet anxiety studies, individuals with high degrees of perceived mobile computer anxiety are expected to have lower degrees of intention to use mobile game systems. As playing games is essentially an activity with mobile, perceived mobile computer anxiety, arising from lack of mobile skills or experience, could play an important role in influencing individuals' reactions to use mobile gameplay adoption. Therefore, we expect that mobile computer anxiety will have a negative influence on behavioral intention to use or adopt mobile English-learning gameplay. This study further contends that women will have higher mobile computer anxiety than men and that the influences of mobile computer anxiety on behavioral intention will be moderated by gender, such that the effect will be stronger for women. Thus this study tested the following hypothesis 1:

Hypothesis 1: Mobile computer anxiety negatively influences behavioral intention to adopt a mobile English-learning gameplay more strongly for women than for men.

2.2 Perceived second language anxiety

Anxiety also exists in second language learning, especially when that language is English can have a debilitating effect and can influence users' specific media adoption to ultimately reach their educational goals. There has been a great deal of previous research in second language anxiety. Second language anxiety is defined as a distinct complex of self-perceptions, beliefs, feelings, and behaviors related to using a second language for communication beyond the classroom. Furthermore, prior studies into gender differences in second language anxiety have yielded inconclusive findings in different countries (Dewaele, Petrides, and

Furnham, 2008). Several studies found that women experience less second language anxiety than men (Kitano, 2001). Campbell and Shaw (1994) reported that males felt higher second language anxiety in the classroom setting than females. On the other hand, other scholars have reported women to experience higher levels of second language anxiety when learning a foreign language. Arnaiz and Gullen (2012) showed that Spanish women experienced higher second language anxiety than Spanish men when considering English as second language learning: especially women were more anxious in terms of communication apprehension and evaluation anxiety. Furthermore, Donovan and MacIntyre (2004) found no support for gender differences in second language anxiety among French junior higher school and high school students, female university students experienced higher levels of second language anxiety than their male counterparts. Dewaele, Petrides, and Furnham (2008) did not find significant gender differences in second language anxiety in general, but observed that women experienced more second language anxiety in public speech, and when discussing with their colleagues. Dewaele and Ip (2013) also did not find a significant gender difference in their study. Thus, this study examined the following Taiwanese situations as hypothesis 2:

> Hypothesis 2: Second language anxiety negatively influences behavioral intention to adopt a mobile English-learning gameplay more strongly for men than for women.

2.3 Confirmation and perceived usefulness

Perceived usefulness and playfulness play important roles in video and computer game usage. Bruner and Kumar (2005) propose attitude of confirmation by using handheld Internet devices to be "an overall evaluation, encompassing both utilitarian and hedonic components" (p. 554) and find that it completely mediated the effects of two antecedents, usefulness and playfulness, respectively. Perceived playfulness is an intrinsic motive, whereas perceived usefulness is extrinsic. The classical definition of perceived usefulness is the degree to which a person believes that using a particular system will enhance his or her job performance. Bhattacherjee (2001) empirically validated that perceived usefulness is influenced by the user's confirmation level in digital services. The positive correlation between confirmation and perceived usefulness has also been confirmed in e-books (Kang, Wang, and Lin, 2009) and virtual learning environment (Hayashi et al., 2004). This leads to the third hypothesis.

> Hypothesis 3: Confirmation has a positive effect on the perceived usefulness of mobile English-learning gameplay adoption

2.4 Confirmation and perceived playfulness

Since perceived usefulness and perceived playfulness are common motivations in video or computer gameplay, it is reasonable to believe that confirmation would also impact on perceived playfulness. The early study highlighted that higher playfulness results in immediate subjective experiences such as positive confirmation and gratification. Perceived playfulness represents the level of the hedonic component of handheld mobile services. This dimension has also been found to be an important dimension in technology-based self-service (Dabholkar and Bagozzi 2002), including m-commerce. Nysveen and his research fellows (2005) find that enjoyment affects the use of experiential mobile services (e.g., gaming) more strongly than the use of goal-oriented mobile services (e.g., payment). Kiili (2005) highlights the importance of playful and hedonic characteristics in the design of digital learning systems. Van der Heijden (2004) argues that for hedonic systems, perceived enjoyment (a dimension of perceived playfulness) is a stronger predictor

of behavioral intention to use than is perceived usefulness. Hsu and Lu (2007) also provide empirical evidence supporting that perceived enjoyment, similar to perceived playfulness, is a significant determinant of online game continuance behavior. Furthermore, some studies have investigated if females and males maintain the same perception of all types of computer usage.The results find that males reported loving to play video or computer games more than females (Mitra et all, 2000). It is therefore expected that perceived playfulness of m-learning will influence behavioral intention to adopt m-learning more saliently for men than for women. Based on the above discussion, we postulate that the main factor affects the levels of perceived playfulness in a mobile English-learning gaming context. This leads to the fourth hypothesis.

Hypothesis 4: Confirmation has a positive effect on the perceived playfulness of mobile English-learning gameplay adoption

2.5 Confirmation and gratification

Bhattacherjee (2001) empirically validated that gratification is influenced by users' confirmation level of online services. Similarly, other studies such as Hackbarth, Grover, and Yi (2003) have consistently showed a positive correlation between confirmation and gratification. In a number of other studies, it has been empirically established that confirmation has a causal link with gratification (Mondi et al. 2008). This leads to the fifth hypothesis.

Hypothesis 5: Confirmation while adopting the mobile English-learning gameplay has a positive effect on gratification.

2.6 Perceived usefulness and gratification

The previous studies have extensively found that there is a positive correlation between perceived usability and gratification. Hayashi and his colleagues (2004) indicate that perceived usefulness is positively correlated with gratification in three different online training environments. Rai, Lang, and Walker (2002) further empirically show that user gratification is significantly impacted by perceived usefulness and perceived ease of use. In mobile commerce, Shin (2009) finds that perceived usefulness and perceived ease of use are significant antecedents of consumer gratification. It has been suggested that perceived usefulness and ease of use are significant determinants of user gratification. The following sixth hypothesis will be tested.

Hypothesis 6: Perceived usefulness while adopting the mobile English-learning gameplay has a positive effect on gratification

2.7 Perceived playfulness and gratification

When applying the uses and gratifications theory to mobile gameplay adoption, it was found that people establish important correlations between gratifications and entertainment (Totten et al., 2005). Previous studies have demonstrated that higher playfulness results in immediate subjective experience such as a positive mood and gratification. Reid and Reid (2006) also find that attitudinal outcomes, such as positive effect and gratification, resulted from playful or entertaining experiences. Therefore, playfulness is also positively associated with positive effects and gratification. This leads to seventh hypothesis.

Hypothesis 7: Perceived playfulness while adopting the mobile English-learning gameplay has a positive effect on gratification.

2.8 Gratifications and continuance intention

According to UGT and ECT, users' continuance intention is primarily determined by their satisfaction with the specific media (e.g., mobile English-learning gameplay) adoption. Following prior work (Mondi et al., 2008), gratification in this study is defined as a psychological or affect related to and resulting from a cognitive appraisal of the expectation-performance discrepancy. Gratification also refers to an affect to, captured as a positive, indifferent, or negative feeling. Affect has been theorized and validated in technology acceptance model (TAM)-based research as a key factor of technology use. Applying the above arguments to mobile English-learning gameplay adoption, the eighth hypothesis is proposed:

Hypothesis 8: User's gratification with mobile English-learning gameplay adoption is positively associated with continuance intention.

3. Methodology

To ensure the content validity of the scales, three items adapted from Moon and Kim (2001) were used to measure perceived playfulness. Three items for (mobile) computer anxiety were adapted from the original instrument of computer anxiety developed by Siau, Lim, and Shen (2001) and four items perceived second language anxiety developed by Brown (2000). Shin (2011) were used to measure uses and gratifications. Pretesting of the measures was conducted by users selected from the mobile game filed and experts in the area of information systems/educational technology research. Accordingly, the items were further adjusted to make their wording as precise as possible. Likert scales (1-5), with anchors ranging from strongly disagree to strongly agree, were used for all construct items. The questions also contained demographic questions.

It is expected for the purposes of this current research that providing different game genres for English learning with digital devices extends to an electronic setting. Hence, different genres of digital game-based English learning were created by the research team. According to the definitions and categorizations offered by Lucas and Sherry (2004), Greenberg and his fellows (2010) and Yee (2007), card, quiz/trivia, and puzzle games were labeled "traditional" because they emphasized game genres that have been around for a long time either in the digital gaming world or in non-digital game versions. Sports, fighter, shooter, and racing/speed games were named "achievement" or "physical" games because they all imitated real world physical competition. Strategy, fantasy/role-playing, and action/adventure were labeled as "imagination" games because of their emphasis on imaginary lands. Chatting and making friends games were identified as "social" games because of their emphasis on social relationships and their development. Simulation was named "cross-four-type" and virtually designed by cross-loading all four types of games for this research. For each game genre, two specific games were created as examples of digital game-based English learning in this research. Informant visits to these digital game-based learning materials were encouraged through graphics and audio requests for them to play the games repeatedly to entertain themselves and improve their English abilities.

The study was undertaken to examine pre-test and post-test and construct reliability before conducting the fieldwork. The participants were familiar with mobile gaming and e-book services, and prior to answering the questionnaire, they were strictly instructed to ask the experimenter any questions about questionnaire items that they didn't understand.

4. Findings

Totally, 62 samples (32 females and 30 males) were conducted after playing mobile English –learning gameplay. The reliability and validity of the measurement instrument were evaluated with SPSS 1.5, using

reliability and convergent validity criteria. The reliability of the instrument was established by calculating Cronbach's alpha to measure the internal consistency. Each construct was tested for reliability and content validity with Cronbach's alpha (Cronbach, 1971). Most of the scores were above the acceptable level, that is, above 0.70. The variables in this study, derived from the existing literature, exhibited strong content validity.

To test structural relationships, the hypothesized causal paths were estimated. Six hypotheses were supported and two were abandoned. The results generally support the proposed model, illustrating the new roles of the perceived quality of mobile English-learning gameplay adoption. The key backbone relationships among confirmation, gratification and intention were supported by the data, as indicated by significant critical ratio. Interestingly those happened in Taiwanese youth, perceived mobile computer anxiety may not be significantly influenced by confirmation (H1, CR=1.812), and perceived second language may not be significantly influenced by confirmation (H2), either. It was more conducive to reaching a higher level of positive gratification (H6, CR=3.254). The influence of confirmation on perceived usefulness was significant (H3, CR=3.467). On the other hand, gratification was the most important determinant of users continuance intention for mobile English-learning gameplay adoption (CR=5.322). This reflects the significant effect of confirmation on user gratification (CR=3.152). The effect of external influences (CR=3.280) on continuance intention of usage was also supported by the results. There is a significant positive relationship between confirmation and perceived usefulness (CR=2.113). The results imply that perceived usefulness and playfulness may influence gratification, which in turn, affects users' continuance intention of usage. Continuance intention is enhanced by perceived usefulness, as well as by perceived playfulness.

The moderating effects of user variables were tested by comparing, between the two groups (male and female), the path coefficients produced for each moderator. Path coefficients were calculated with t-values suggested by Chow (1980). The results of the path coefficient comparisons reveal a number of significantly different structural relationships. The path coefficient from perceived mobile computer anxiety and perceived second language anxiety to continuance intention for the female group was not significantly larger than that for the male group. Thus it cannot be inferred that the continuance intention of the female group is more easily affected because it does not find it less anxiety in mobile computer gameplay adoption. In the same manner, it cannot be inferred that the continuance intention of the male group is more easily affected because it does not show it less anxiety in second language learning.

5. Conclusion

The goal of this study was to provide suggestions that given a direction for bridging the gender gap in adopting the mobile English-learning gameplay. The study was designed to explain the development of individual's behavioral continuance intentions toward, and use of adopting mobile English-learning gameplay. To achieve this goal, new constructs adapted from other studies were employed to reflect the features of mobile learning (e.g., gaming) services. The results add to our understanding of users' attitudes and intentions toward mobile English-learning gameplay adoption and explore the implications for theoretical advancement regarding mobile learning services. One finding that attracts attention is that users like mobile English-learning gameplay, but still have functional advantages of advanced mobile devices to bridge the gender gap.

Consistent with previous research, the results show that gratification and confirmation are the two main predictors of intention. Prior studies and industry reports have shown that usability is the most critical factor of mobile English-learning gameplay. This study confirms the importance of usability and playfulness that can be enhanced by perceived quality content as well as excellence of service to users. Furthermore, the findings in this study establish a significant role for perceived usefulness and playfulness and their underlying linkage to other variables – namely, how they are to confirmation, gratification and continuance intention. The finding constitutes a theoretical improvement for the UGT and ECT as well as gender differences between perceived mobile computer anxiety and perceived second language anxiety. As antecedent variables, the roles of perceived usefulness and perceived playfulness are important acceptance in ways that guide development, beyond suggesting that mobile learnings have an impact on perceptions of usefulness and playfulness. Therefore, it is essential to understand the antecedents of the key acceptance variables in order to be able to explain whether gender differences in acceptance and use of mobile English-learning gameplay.

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科技部補助專題研究計畫成果報告自評表

請就研究內容與原計畫相符程度、達成預期目標情況、研究成果之學術或應用價值（簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性）、是否適合在學術期刊發表或申請專利、主要發現（簡要敘述成果是否有嚴重損及公共利益之發現）或其他有關價值等，作一綜合評估。

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1. 請就研究內容與原計畫相符程度、達成預期目標情況作一綜合評估

   ☑ 達成目標

   ☐ 未達成目標（請說明，以 100 字為限）

       ☐ 實驗失敗

       ☐ 因故實驗中斷

       ☐ 其他原因

   說明：

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2. 研究成果在學術期刊發表或申請專利等情形：

   論文：☐☑已發表 ☐未發表之文稿 ☐撰寫中 ☐無

   專利：☐已獲得 ☐申請中 ☐無

   技轉：☐已技轉 ☐洽談中 ☐無

   其他：（以 100 字為限）

   (1) 本研究成果已發表於國際研討會 2015 ACR Asia-Pacific Conference 及 ICCMI 2015 3rd International Conference on Contemporary Marketing Issues, 並且二篇都被研討會收為論文集 (Conference Proceeding)如下：

   - Chen, Chih-Ping (forthcoming). Gender Differences in Playing Digital Game-Based Electronic Books. Proceedings of *Asia-Pacific Advances in Consumer Research, Hong Kong, China.* [ISBN # will be allocated soon]
   - Chen, Chih-Ping (forthcoming). Proceeding of 3rd International Conference on Contemporary Marketing Issues, London, UK [ISBN # will be allocated soon]

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3. 請依學術成就、技術創新、社會影響等方面，評估研究成果之學術或應用價值（簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性），如已有嚴重損及公共利益之發現，請簡述可能損及之相關程度（以 500 字為限）

本研究以「深化探索跨越性別鴻溝：檢視性別刻板印象認知對不同性別年輕成人使用遊戲式英語電子書之互動系統偏好、個人學習差異，產生認知娛樂性、學習意向及電子口碑學習推薦效果」為題。

在學術成就上，本研究部份結果如上述已被兩個國際重要研討會接受，並收錄編撰為研討會論文集。深入探討不同性別(特別是女性)對遊戲式英語電子書型態產生認知娛樂性偏好與學習意向。其結果發現遊戲式英語電子書有助於打破傳統性別刻板印象的鴻溝。第一篇文章已投重要國際期刊 Journal of Computer Assisted Learning (SSCI, IF:1.023)。

在技術創新，本研究藉由「使用與滿足理論」（Uses and Gratifications Theory）為基礎，同時整合「語言學習認知」、「科技恐懼」等論述，建構屬於「遊戲式英語電子書學習使用與滿足模式」，並假設會對使用意願與學習成效造成影響。創新運用網路遊戲和電子書技術作為學習工具，縮小數位鴻溝和性別刻板觀念的態度。本研究結果貢獻，初步勾勒「遊戲式英語電子書學習使用與滿足模式」，供後續研究者深入探討與檢視。

在社會影響上，其研究內容與目的具體挑戰傳統對兩性學習的刻板印象與期待之檢視。以跨領域的觀點，搭起人文與科技學者對性別差異在新科技行動學習的論述與對話。值得注意的是，研究結果發現，藉由遊戲式英語電子書學習縮小性對特定遊戲的刻板印象，進而影響其使用與學習。

就整體評估研究成果之學術價值而言，國內以年輕成人對遊戲式英語電子書學習接受與使用為研究焦點的實徵研究並不多見，直接以性別差異觀點檢視年輕成人遊戲式英語電子書學習成效也罕聞。過往文獻多數以孩童閱讀電子書相關的研究為主或電子童書與傳統童書對學生閱讀成效影響、電子童書與紙本童書在閱讀理解能力與閱讀態度的差異比較等此類文獻居多。本研究初步結果，從性別差異探索遊戲式英語電子書學習學習之使用與滿足之研究雖仍屬紊雜初期，但已初步作出嚴謹的學術釐清與實徵研究。同時，彌補國內此領域既有文獻不足之處，並提供有志於此研究者基礎文獻論述。

行政院國家科學委員會補助國內學者出席國際學術會議報告

104 年 6 月 22 日

報告人姓名	陳志萍	所屬系所	元智大學管理學院
會議　時間　地點	自 104 年 6 月 19 日至 104 年 6 月 21 日, CUHK Business School, Hong Kong.	計畫編號 本會核定 補助文號	計劃編號： MOST NSC 103 - 2511 - S - 155 – 005-MY2
會議 名稱	(中文) (英文) Association for Consumer Research Asia-Pacific Conference 2015		
發表 論文 題目	(中文) (英文) Gender Differences in Playing Digital Game-Based Electronic Books		

報告內容應包括下列各項：

一、參加會議經過

Association for Consumer Research Asia-Pacific Conference 2015 為從事消費者行為(包括：文化研究、性別差異、消費、品牌等)及行銷研究的學者提供一次國際性最新相關趨勢研究的學術交流機會。今年(2015)亞洲的 ACR 在香港中文大學舉辦，總投稿論文來自於 125 個國家，共 2 千多篇。最後錄取 120 篇，很榮幸本人科技部補助專案(MOST NSC 103 - 2511 - S - 155 – 005-MY2)撰寫之文章(Gender Differences in Playing Digital Game-Based Electronic Books)也榮獲被接受論文名單之中。會議參與學者來自世界各國，主要包括：美國、英國、芬蘭、澳洲、日本、德國、加拿大、印度、台灣、新加坡、馬來西亞，以及瑞士等國家。國際學者相互介紹其研究領域與討論意見，令本人收穫良多，擬進一步將本研究結果與文獻探討深入分析撰寫，並進一步投國際期刊。

二、與會心得

Association for Consumer Research Asia-Pacific Conference 是每兩年在亞洲舉辦的重要消費者及行銷研究之國際研討會(也被科技部列為行銷學門重要國際研討會)，今年重要發表與討論議題主要包含：新科消費者行為影響相關議題研究、遊戲與消費者行為研究、文化媒體研究 、文化改變、手機社交網絡認同與認知研究、知訊傳遞過程研究、自我與擁有研究、消費者對多層感觀反應研究、美與時尚、環境考量研究、品牌與忠誠度，以及研究方法討論。今年，與會學者每天平均出席研論會約 100 人，參與討論也相當踴躍。本人發表日期為研討會第二天，參與學者是最多的一天，主要議程是：遊戲與消費者行為（Gamification and Consumer Behavior) 我的研究題目 Gender Differences in Playing Digital Game-Based Electronic Books，另外同場研究學者為瑞士 Jessica Muller-Stewenes 等其研究主題為：Boosting Innovation Adoption through Gamification information and The gamification of buying,以及澳洲學者 Donnel Briley 其研究主題為：Consumer Rejections of Game-based Deals 當前全球最熱門

的遊戲或電玩文化與使用者行為研究，此次研討會促進各國學術研究人員提出其研究結果與觀點，進一步做研究新趨勢與方法異同的交流，現場提問者多達十幾人，與會評論及建議有助本人後續撰寫論文投國際期刊。

三、考察參觀活動(無是項活動者省略)

　　無

四、建議

五、攜回資料名稱及內容

　　攜回研討會議程資料、研究會議程。因 ACR 研討會為消費者行為重要國際研討會，後續將 Competitive papers 編輯成 Proceeding Journal 很榮幸本文被收錄成集，後續將收到此期刊。

六、其他

行政院國家科學委員會補助國內學者出席國際學術會議報告

<div align="right">104 年 7 月 8 日</div>

報告人姓名	陳志萍	所屬系所	元智大學管理學院	
會議　時間　地點	自 104 年 6 月 29 日至 104 年 7 月 3 日, Kingston Business School /UK	計畫編號	本會核定補助文號	計劃編號： MOST NSC 103 - 2511 - S - 155 – 005-MY2
會議名稱	(中文) (英文) The 3rd International Conference on Contemporary Marketing Issues (ICCMI London 2015)			
發表論文題目	(中文) (英文) Bridging the Gender Gap with Digital Game-Based Electronic Books			

報告內容應包括下列各項：

一、參加會議經過

　　The 3rd International Conference on Contemporary Marketing Issues (ICCMI London 2015) 已連續在歐洲舉辦三年為消費者行為(包括:文化研究、科技消費、品牌等)及行銷研究的學者提供一次國際性最新相關趨勢研究的學術交流機會。今年(2015)歐洲的地點在英國的 Kingstone Business School, Kingston University 舉辦，總投稿論文來自於 43 個國家，共四百多篇。最後錄取 90 篇，很榮幸本人科技部補助專案(MOST NSC 103 - 2511 - S - 155 – 005-MY2)撰寫之文章(Bridging the Gender Gap with Digital Game-Based Electronic Books)也榮獲被接受論文名單之中。會議參與學者來自世界各國，主要包括：美國、英國、希臘、澳洲、台灣、德國、加拿大、印度、以色列、中國、日本、俄羅斯，以及芬蘭等國家。國際學者相互介紹其研究領域與討論意見，令本人收穫良多，擬進一步將本研究結果與文獻探討深入分析撰寫，並進一步投國際期刊。

二、與會心得

　　本人第一次參加 The 3rd International Conference on Contemporary Marketing Issues (ICCMI London 2015)每年在歐洲舉辦的重要消費者及行銷研究之國際研討會，今年重要發表與討論議題主要包含：現代行銷運用、行銷科技介面研究、購買行為、全球行銷、創新科技使用、社交媒體行銷、行銷策略、行銷傳播、多管道行銷、觀光行銷、現代行銷研究議題討論，以及行銷與教育。今年，與會學者每天平均出席研論會約 60 人，參與討論也相當踴躍。本人發表日期為研討會第三天，主要議程是：消費者行與及行銷教育，我的研究題目 Bridging the Gender Gap with Digital Game-Based Electronic Books，另外同場研究學者為俄羅斯 Dubravka Sincic Coric, Suncana Piri rajh and Edo rajh 等其研究主題為：俄羅斯 Technological intensity and buying decision-making approaches in manufacturing sector 以及英國學者 Simeon Jelev and Elena Kostadinova 其研究主題

為：Solely loyal households，以及以色列學者 Susie Pryor and Scott Ertekin 其研究主題為:From Elfland to Islay: Collective fantasy and ritual at the Islay festival of Malt and Music，此次研討會促進各國學術研究人員提出其研究結果與觀點，進一步做研究新趨勢與方法異同的交流，現場提問者多人，與會評論及建議有助本人後續撰寫論文投國際期刊。

三、考察參觀活動(無是項活動者省略)
　　無
四、建議

五、攜回資料名稱及內容
　　攜回研討會議程資料、研究會議程。
六、其他

科技部補助計畫衍生研發成果推廣資料表

科技部補助計畫	計畫名稱: 深化探索跨越性別鴻溝：檢視性別刻板印象認知對不同性別年輕成人使用遊戲式英語電子書之互動系統偏好、個人學習差異，產生認知娛樂性、學習意向及電子口碑學習推薦效果
	計畫主持人: 陳志萍
	計畫編號: 103-2511-S-155-005-MY2　　　學門領域: 性別與科技研究

<div align="center">無研發成果推廣資料</div>

103年度專題研究計畫研究成果彙整表

計畫主持人：陳志萍	計畫編號：103-2511-S-155-005-MY2

計畫名稱：深化探索跨越性別鴻溝：檢視性別刻板印象認知對不同性別年輕成人使用遊戲式英語電子書之互動系統偏好、個人學習差異，產生認知娛樂性、學習意向及電子口碑學習推薦效果

成果項目			量化			單位	備註（質化說明：如數個計畫共同成果、成果列為該期刊之封面故事...等）
			實際已達成數（被接受或已發表）	預期總達成數（含實際已達成數）	本計畫實際貢獻百分比		
國內	論文著作	期刊論文	0	0	100%	篇	
		研究報告/技術報告	0	0	100%		
		研討會論文	0	0	100%		
		專書	0	0	100%	章/本	
	專利	申請中件數	0	0	100%	件	
		已獲得件數	0	0	100%		
	技術移轉	件數	0	0	100%	件	
		權利金	0	0	100%	千元	
	參與計畫人力（本國籍）	碩士生	0	0	100%	人次	
		博士生	0	0	100%		
		博士後研究員	0	0	100%		
		專任助理	0	0	100%		
國外	論文著作	期刊論文	0	0	100%	篇	
		研究報告/技術報告	0	0	100%		
		研討會論文	2	0	100%		Chen, Chih-Ping (forthcoming). Gender Differences in Playing Digital Game-Based Electronic Books. Proceedings of Asia-Pacific Advances in Consumer Research, Hong Kong, China. [ISBN # will be allocated soon] Chen, Chih-Ping (forthcoming).

						Proceeding of 3rd International Conference on Contemporary Marketing Issues, London, UK [ISBN # will be allocated soon]
	專書	0	0	100%	章/本	
專利	申請中件數	0	0	100%	件	
	已獲得件數	0	0	100%		
技術移轉	件數	0	0	100%	件	
	權利金	0	0	100%	千元	
參與計畫人力（外國籍）	碩士生	0	0	100%	人次	
	博士生	0	0	100%		
	博士後研究員	0	0	100%		
	專任助理	0	0	100%		

其他成果（無法以量化表達之成果如辦理學術活動、獲得獎項、重要國際合作、研究成果國際影響力及其他協助產業技術發展之具體效益事項等，請以文字敘述填列。）	本研究成果已發表於國際研討會2015 ACR Asia-Pacific Conference及 ICCMI 2015 3rd International Conference on Contemporary Marketing Issues，並且二篇都被研討會收為論文集 (Conference Proceeding)如下： Chen, Chih-Ping (forthcoming). Gender Differences in Playing Digital Game-Based Electronic Books. Proceedings of Asia-Pacific Advances in Consumer Research, Hong Kong, China. [ISBN # will be allocated soon] Chen, Chih-Ping (forthcoming). Proceeding of 3rd International Conference on Contemporary Marketing Issues, London, UK [ISBN # will be allocated soon]

	成果項目	量化	名稱或內容性質簡述
科教處計畫加填項目	測驗工具(含質性與量性)	0	
	課程/模組	0	
	電腦及網路系統或工具	0	
	教材	0	
	舉辦之活動/競賽	0	
	研討會/工作坊	0	
	電子報、網站	0	
	計畫成果推廣之參與（閱聽）人數	0	

科技部補助專題研究計畫成果報告自評表

請就研究內容與原計畫相符程度、達成預期目標情況、研究成果之學術或應用價值（簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性）、是否適合在學術期刊發表或申請專利、主要發現或其他有關價值等，作一綜合評估。

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1. 請就研究內容與原計畫相符程度、達成預期目標情況作一綜合評估
   ■達成目標
   □未達成目標（請說明，以100字為限）
     □實驗失敗
     □因故實驗中斷
     □其他原因
   說明：

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2. 研究成果在學術期刊發表或申請專利等情形：
   論文：□已發表 □未發表之文稿 ■撰寫中 □無
   專利：□已獲得 □申請中 ■無
   技轉：□已技轉 □洽談中 ■無
   其他：（以100字為限）

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3. 請依學術成就、技術創新、社會影響等方面，評估研究成果之學術或應用價值（簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性）（以500字為限）

   在學術成就上，本研究部份結果如上述已被兩個國際重要研討會接受，並收錄編撰為研討會論文集。深入探討不同性別(特別是女性)對遊戲式英語電子書型態產生認知娛樂性偏好與學習意向。其結果發現遊戲式英語電子書有助於打破傳統性別刻板印象的鴻溝。第一篇文章已投重要國際期刊Journal of Computer Assisted Learning（SSCI, IF:1.023）。

   在技術創新，本研究藉由「使用與滿足理論」（Uses and Gratifications Theory）為基礎，同時整合「語言學習認知」、「科技恐懼」等論述，建構屬於「遊戲式英語電子書學習使用與滿足模式」，並假設會對使用意願與學習成效造成影響。創新運用網路遊戲和電子書技術作為學習工具，縮小數位鴻溝和性別刻板觀念的態度。本研究結果貢獻，初步勾勒「遊戲式英語電子書學習使用與滿足模式」，供後續研究者深入探討與檢視。
   在社會影響上，其研究內容與目的具體挑戰傳統對兩性學習的刻板印象與期待之檢視。以跨領域的觀點，搭起人文與科技學者對性別差異在新科技行動學習的論述與對話。值得注意的是，研究結果發現，藉由遊戲式英語電子書學習縮小性對特定遊戲的刻板印象，進而影響其使用與學習。
   就整體評估研究成果之學術價值而言，國內以年輕成人對遊戲式英語電子書學習接受與使用為研究焦點的實徵研究並不多見，直接以性別差異觀點檢視年輕成人遊戲式英語電子書學習成效也罕聞。過往文獻多數以孩童閱讀電子書相關

的研究為主或電子童書與傳統童書對學生閱讀成效影響、電子童書與紙本童書在閱讀理解能力與閱讀態度的差異比較等此類文獻居多。本研究初步結果，從性別差異探索遊戲式英語電子書學習學習之使用與滿足之研究雖仍屬紊雜初期，但已初步作出嚴謹的學術釐清與實徵研究。同時，彌補國內此領域既有文獻不足之處，並提供有志於此研究者基礎文獻論述。