

科技部補助專題研究計畫成果報告 期末報告

跨越性別鴻溝：遊戲式英語電子書對不同性別年輕成人產生認知娛樂性、學習意向之建置與驗證

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報告附件：出席國際會議研究心得報告及發表論文

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1. 公開資訊：本計畫涉及專利或其他智慧財產權，2年後可公開查詢
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中華民國 103 年 09 月 22 日

中文摘要：女性更喜歡傳統遊戲，如無心理旋轉的遊戲；在對比中，男性更喜歡心理旋轉的遊戲。然而，電子書產業整合與數字遊戲產業的發展有呈現媒體劇，娛樂和教育市場的潛力；在當代台灣，以及創造新的價值。在這個時代，當新的和舊值交叉交叉，婦女站在一個整體結構的特殊點。本文試圖看文化衝突和新技術的影響，對女性的樂趣和遊戲。這些數據是從田野調查涉及 25 名女性和在台灣 25 名男性獲得。不同類型的遊戲為基礎的電子圖書吸引女性的樂趣和遊戲已經出現。本研究發現台灣傳統文化影響女性的思想和行為，以及在何種程度上父權干預婦女樂趣和遊戲有很大的不同。

中文關鍵詞：文化、遊戲式電子書、台灣、女性

英文摘要：Females prefer traditional games such as non-mental rotation games; on the contrast, males prefer mental rotation games. However, the development of the e-book industry integrated with the digital gaming industry has the potential to present media drama, entertainment, and education market; as well as create new values in contemporary Taiwan. In this age when new and old values intersect and cross, women stand at an overall structural special point. This article attempts to look at cultural confrontation and the impact of new technology has on women's fun and play. The data was obtained from fieldwork involving 25 females and 25 males in Taiwan. Different types of game-based electronic books attracting women's fun and play have emerged. Traditional Taiwanese culture influences women's thoughts and behaviors, and the extent to which patriarchal power intervenes in women's fun and play vary considerably in this research.

英文關鍵詞：Culture, Game-Based Electronic Book, Taiwan, Women

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)

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本計畫除繳交成果報告外，另含下列出國報告，共 1 份：

執行國際合作與移地研究心得報告

出席國際學術會議心得報告

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中 華 民 國 103 年 9 月 10 日

成果報告全文：

跨越性別鴻溝：遊戲式英語電子書對不同性別年輕成人產生認知娛樂性、學習意向之建置與驗證
Bridge the Gender Gap: Constructing Game-Based English Electronic Book Learning to Investigate the
Gender Differences on Young Adults of Perceived Playfulness and Learning Intention

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1. Introduction

Technology is powerful, remote, incomprehensible, inhuman, scientific, expensive, and – above all – male. What does it have to do with women?
Faulkner and Arnold (1985, p. 1).

The remarks in the epigraph illustrate that men control the major resources and even create what constitutes the proper type of new technology in different cultures (Kerr, 2006). Gender inequality witnessed in the traditional Taiwanese leisure and learning setting. This is because leisure or learning activity itself has been transformed in the Taiwanese context to include conventional gender expectations, and has thus been encapsulated in Taiwanese culture (Tsai, 2011; Moskowitz, 2011). Previous studies have argued that the gendered discourses/narratives of leisure, learning and media texts perpetuate the oppression and subjugation of women. In general, some scholars have identified a “patriarchal system of signification” or “hegemonic devices” in various forms of popular media such as television, film, and music that culturally reproduce dominant ideologies (Castells, 2000; Moskowitz, 2011). They have persuasively highlighted that popular media plays a significant role in maintaining patriarchy. Nowadays, one of the most popular leisure and learning activities for young Taiwanese is playing game-based electronic books. It is unsurprising that the Taiwan government and relevant industries have been paid attention on this field. In view of the e-book surge, market insiders are calling 2010 “year one for Taiwan's e-book industry.” This underscores the rosy outlook of the industry, which has been incorporated into the Taiwanese government's flagship development plan for the digital content industry. In 2012, the Taiwanese government predicts that the production value of the local e-book content industry will hit NT\$30 billion (US\$937 million at NT\$32:US\$1) in the following two years and NT\$100 billion (US\$3 billion) in the following four years (Liu, 2010). Further, game industry research firm Niko Partners reports that digital gaming market will be worth US\$1.7 billion by 2014, with an annual

compound growth rate of 14% (Wong, 2010). Data have released that the development of e-book industry mixed with digital gaming industry has the potential to show even more dramatic in media, entertainment, and education market in Taiwan. Most of this growth will be seen as expanding and thriving, and be expected to create new values in Taiwan. In this age when new and old values intersect and cross, women stand at an overall structural weak point. Through marches and demonstrations, legal amendments and discussion, various movements promote the struggles for “equality of rights between the genders” in Taiwan (Moskowitz, 2011). This paper attempts to look at cultural confrontation, the way new technology challenges young people in Taiwan and the impact that has on women’s fun and play on game-based English electronic books.

2. Literature Review

2.1 Play, Gender and Digital Games

What is play? Early authors like Csiksszentmihalyi and Bennett (1971) note that “Play is action generating action: a unified experience flowing from one moment to the next in contradiction to our otherwise disjoint ‘everyday’ experiences” (p. 45). Based on this concept, Silverstone (1999) further explains that play is at the core of everyday life and can be used as a metaphor and tool for the analysis of media experiences. In addition, play has been seen as an integral and vital part of mental development and learning, and playing activities are essential aspects of learning and creative acts. In this regard, play is a difficult concept to define; it is a culturally and socially specific idea. Brian Sutton-Smith (2001), a leader in twentieth-century research in play, has defined play consistently through the years as an activity that is fun, voluntary, intrinsically motivated, incorporates free choices/free will, offers escape, and is fundamentally exciting. The humanist theorists of play as culture, notably Huizinga (1955) and Caillois (2001), are often cited as offering a way into understanding the relationships between play and culture. Huizinga (1955) asserts that play existed prior to culture and goes on to describe numerous types of play in society, from children’s games to contests, theatrical representations and games of chance. Recently within digital media and communications, the concept of play has been used as a metaphor for the user’s engagement with and use of new media generally. Play is thus an internal state more than an externally existing event. Whether or not an activity is play is based on the experience of the player, not the activity itself. This makes play rather difficult to measure and operationalize. More importantly in digital technological age, one of the key methodological challenges facing play and digital game researchers: “Because forms of play, like all other cultural forms, cannot be neutrally

interpreted, it is impossible to keep ambiguity from creeping into the relationship between how they are perceived and how they are experienced” (Caillois, 2001, p. 216).

Gender in particular has continued to exert a powerful structuring force upon the distinctiveness of play and game culture. Historically, females play differently and less than males in an array of different cultures (Dowling, 2000). Play is practice with power and when females lack power within a culture, they are also refused permission to play. Previous studies have confirmed that children are aware of gender from a very young age and make choices in play based on gender appropriateness (Martin & Ruble, 2004; Serbin, Poulin-Dubois, Colburne, Sen, & Eichstedt, 2001). For example, female game players are “contextually restricted” and tend to play game in the home rather than in public game spaces (Bryce and Rutter, 2003; Kerr, 2003; Schott and Horrell, 2000). Studies conducted in game arcades also release that male predominated (Alloway and Gilbert, 1998; Haddon, 1993) and the pattern seems to have continued in digital environments (Nordli, 2004). While the predominance of males in these spaces may act as a constraint for female game players, another factor is that many females may be unwilling to compete publicly against strangers (Kerr, 2003). Furthermore, Wright and Briedenbach (2002) highlight that players often engaged in “trash talk” or “the utterance of violent/obscene words that sexist and homophobic in the extreme, and on rare occasions racist” while playing first-person shooters in digital environments. Therefore, many female game players take part in female-only competitions which provide a safe environment in which they can compete and practice their skills (Goodwin, 2001; Kerr, 2003).

Consequently, much has been written about the negative effects of the lack of female participation in digital gaming. These include stereotypical representation of females in computer games resulting in digital games in which females feel uncomfortable, perpetuation of the ethos that computers and new technology are the realm of males to the exclusion of females (Kerr, 2006). As Lucas and Sherry (2004) emphasize, based on established social norms, digital games are perceived to belong in the male domain, and female players and male players alike experience greater social acceptance by staying within sex-role expectations. It has been argued that most popular digital games feature male protagonists and are primarily marketed to men (Beasley & Collins Standley, 2002). The diversity of digital game players does not appear to be changing the types of games produced by the digital game industry. There are many types of play available in digital media (e.g.,

digital games or game-based electronic book). Herz (1997) identifies eight different game genres, while Poole (2000) lists nine. The main differences between these two categorizations revolve around defining action, simulation, and strategy games (See table 1). In the more complex games of the types, the digital game world itself is a digital construction and the player must understand and learn not only the culture of the game, but also the implications of the game types. For example, men tend to play action games seen as masculinity; whereas women are inclined to play role or character-playing games seen as caregiving or femininity. More of the digital game types are designed and produced by males for largely male users/learners (Davis, 2002; Laurel, 2001). Previous studies conducted in women and games tend to focus exclusively on identity, exploration, and socialization (Kerr, 2006). Lucas and Sherry (2004) analyze traditional games which preferred by females as interpersonal issues, non-mental rotation or indirect competition; on the contrary, the games which preferred by males as action (i.e. first-personal shooters), mental rotation, strategy or fighting games. According to above statements, digital games are still clearly shaped by a wide range of social cultural factors, by non-digital games, social and cultural traditions of play and existing media forms.

On the other hand, the most Pew report states that female rates of engagement in digital game play equal those of male (Fallows, 2005). Fallows (2005) further highlights that although females are now as likely as males to play on games, females are much more likely to play digital games such as puzzles or role playing. Such data suggest that female attitudes toward digital game play are changing and that there might also be gains in female attitudes toward technological aptitude and digital self-efficacy. Taylor (2003) examines why some females enjoy the gameplay of digital communities. She concludes that females' participation in digital game worlds can best be understood by analyzing the kinds of pleasure that females derive from engaging in these worlds:

Rather than seeing this group of players [females] as an anomaly, this article explores how focusing on the pleasures women derive from gaming might lead to more complex understanding of both gender and computer games (p. 1).

Eventually, this is an important pleasure of the game, and many females are able to play and have fun to extend and explore themselves in the digital world.

Table 1 A comparison of Herz and Poole's game genres

Herz (1997)	Poole (2000)	Defining Characteristics
Action	Shoot' em ups	Twitch First-person perspective Graphics Multiplayer mode Character and level modifications Mission
	Racing Games	Graphics Speed Power-ups Accurate simulations
Fighting	Beat' em ups	Complex button Combinations Motion capture Power-ups
Sports	Sports	Combination of action and simulation Celebrity athletes Celebrity commentators Realism
Puzzle	Puzzle	Exercises in logic Finding the right steps and the right order
Adventure	Platform	Accumulate items Puzzles Power-ups Overcome obstacles Detailed back stories
Role playing	Role playing	Statistics Maps Detailed back stories Focus on character Magic
Simulation	Go games	Simulation of real-world environments and activities Realism
Strategy	Real time strategy games	Game play and goals generally abstract Often multiplayer Time element in RTSGs Logical thinking

2.2 Technology and Cultural values

Technologies are often designated as falling primarily in masculine or feminine domains of expertise and use, although the gendering of technologies may change over time as users appropriate them for new purposes or marketers reposition them (Wajcman, 2004). The gaming, particularly its designing, programming and recreational aspects, was initially gendered male (Turkle, 1988). Some gaming studies have pointed out that most young men keep producing what they want in the digital world (Davis, 2002; Laurel, 2001). In this sense, there is a cultural dominance of masculinity in digital media. However, as the gaming industry has become connected to the Internet and digital media in large numbers, and so has become more useful for communication, some authors have claimed that the technology (i.e., digital games or game-based electronic book) now promises to deliver liberation, power and pleasure to a new generation of female users (Kerr, 2006). In other words, although there are social and cultural constraints on

individual's behavior, for women in particular, the (digital) gaming industry is potentially very liberating (Dovey and Kennedy, 2006). All traditional cultural values/norms and expectations of gender as well as entrenched hierarchies will be ceased because in digital gaming these features (i.e., sex, race, age and body), as a basis for the evaluative categorization of self and other(s), are absent. The digital gaming can liberate individuals from traditional gender stereotypes and scripts by giving less priority, avoiding, manipulating or transforming traditional signals and behaviors. The clear distinctions between "masculinity" and "femininity" could now become blurred. Hence, a digital world will generate new forms for rendering self and other(s), as well as for reconstructing gender identity. Accordingly, the digital game offers an ideal site of improvisational theater; a space where different gender identities can be more or less freely adopted and explored at will.

Conversely, as mentioned before that gender has also been seen as a social and cultural construction, which implies that, theoretically, we may continue to conceptualize variations along traditional gender traits on the digital gaming (Kerr, 2006). While some prior work in 1990s was notable for the approach in understanding the relationship between gender and games, much of it presented stereotypical girls' relationship to technology. Basically, little was done to disentangle the experience of play across age and life cycle. Many studies on girls thus often were extrapolated to apply to women. While animated by a deep concern for enfranchising girls into not only digital gaming but the technology more generally, such approaches typically suggested that we needed games geared to traditionally feminine interests and sensibilities. This kind of approach is typified, for example, by the perspective mentioned earlier that sees females enjoying the socializing issues of games and males the raw power they are able to exert in them. The model is also one in which girls do not particularly enjoy violence or direct competition in games but instead prefer to run their energy toward interpersonal issues, non-mental rotation, indirect competition, or character-based genres (Graner Ray 2004; Koster, 2005). In other words, the digital game movement has close ties to previous work on gender that females are more inclined to focus on and prefer to invest in activities such as caregiving, interpersonal orientations, cooperation and internal discovery.

The current models through which we understand women's engagement with games, including one in which women are seen as "intruders" rather than inhabitants of gamer culture, are linked to a much older

rhetoric touching on not only issues of women and technology, but their engagement across the gender stereotype boundary (Bolin and Granskog, 2003; Kay, 2003). We argued that the results of the above studies were contradict or all based on the research of Western countries/ cultures. What happens in Taiwan recently? We also cannot identify some common stereotypes that jump out from or circulate in traditional Taiwanese culture about women and men do, how much those ideas correspond to actual lived practice and experience. In fact, research in the area of playing digital game-based English electronic book has been scarce especially in Taiwanese culture or society. To overcome this, more relevant empirical work is needed. The following sections explain how we have done and what we have got in our study of this area.

3. Methods

In this study, fifty (25 females and 25 males in Taiwan) in-depth interviews were conducted. The main objective was to develop a wider understanding of which types of game-based English e-books attract young Taiwanese adults, especially for females, to play and learn. These interviews also aimed to investigate the cultural confrontation, the way new technology challenges young Taiwanese adults and the impact that has on women's fun and play game-based English electronic books.

The series of semi-structured interviews were conducted with young Taiwanese adults who were either currently studying in Higher Education or who just graduated from university and were working in some industries. Fifty was felt to be a plenty number to draw out themes and opinions. There were an equal number of male and female informants, with the ages of the informants falling into all categories from 21 to 28.

The data reported in this paper were collected from June 2011 to May 2013. Each interview lasted between 30 and 90 minutes and investigated perceptions of the game-based English e-book (See figure 1) which created and designed by our research team on the basis of combinative game types (See Table 1). Although there were set questions, the aim of the interviews was for the structure to be as open as possible, so the actual questions and lines of discussion varied from interview. The interviews were transcribed so that data would not be lost during the analysis, and so that there would be less reliance on the memory and initial interpretations of the individual carrying out the analysis. These interview transcripts were analyzed iteratively, initially examining them to draw out themes and then re-analyzing statements in the interviews

against the analysis until a coherent picture emerged (Huberman & Miles, 1994). Once themes were decided upon each transcript was re-examined and coded for whether that theme was absent or present. To ensure inter-coder reliability two scorers separately coded the entire data set. In the next section the emergent themes from the interview data will be fully discussed.

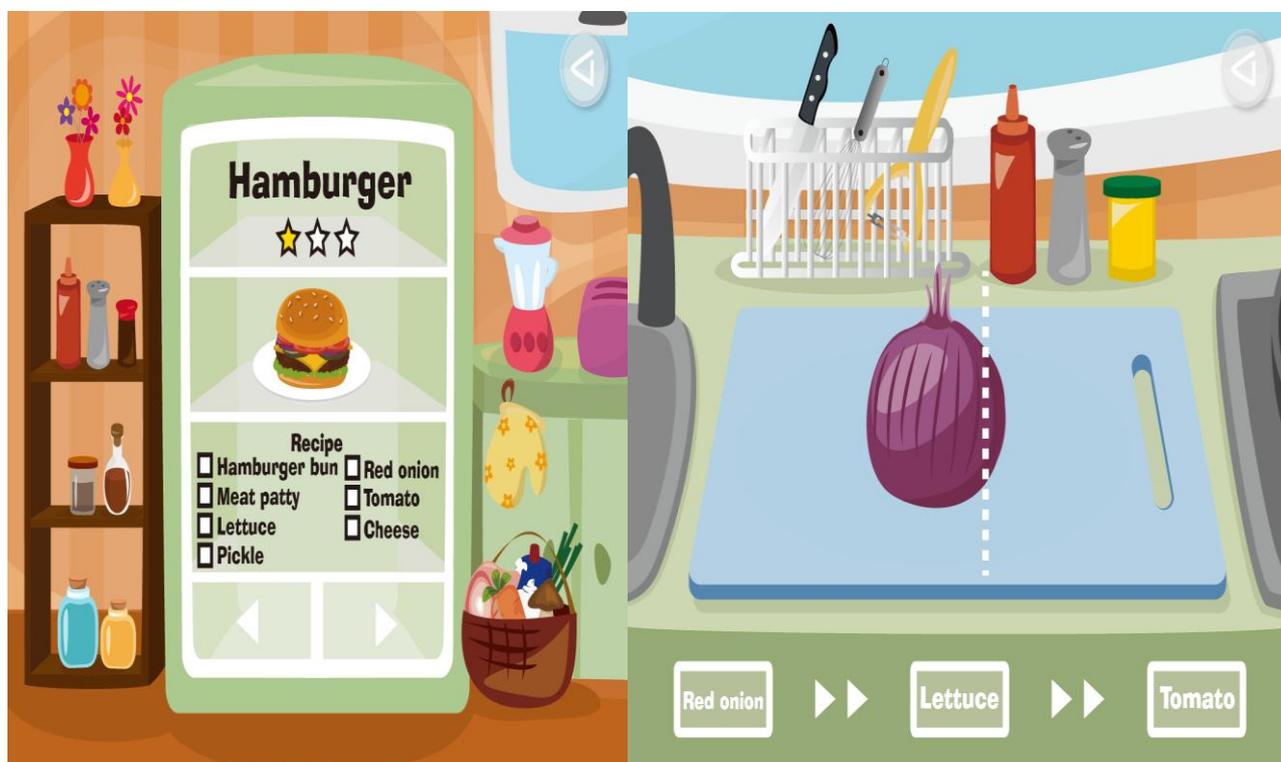


Figure 1 One of chapters: Cooking Simulations gamed-based English e-books created by the research team.

4. Findings and Discussions

For both female and male young informants in our data, the way to approach an understanding of playing digital game-based English electronic book is through the concept of “fun.” Basically, play is something that they do because it is fun; it is pleasurable and enjoyable. They consider as play and activities that they do for fun. Given that our data suggests that young female adults are playing digital game-based English e-books in increasing numbers, we find difference in the types. Far too often we have heard young adults in Taiwanese culture, for example, talk about how females dislike mental rotation, adventure or puzzle games, but our data shows that females are on the move. The following are the details of our data analyses in this research.

As mentioned earlier in the literature (Kerr, 2006; Lucas & Sherry, 2004), females prefer play non-mental rotation, role-playing, indirect competition or interpersonal character games; in contrast, males tend to involve with mental rotation, action, fighting or strategy games. Profoundly, our data echoes that Taiwanese young adults have the similar preferences and needs. *Rene (22 yrs, female, undergraduate student)*

says: “Using simulation or role-playing game-based e-books to learn English is an easy way to reach my learning goal.” Most of them pointed out that role-playing or simulation game-based English e-book creates a realistic situation. These games can range from realistic simulations used by institutions such as those used to train bankers or restaurant employees and add English vocabularies and sentences, to simplified game-like approximations of them used mainly for entertainment. More importantly, we find that there is a kind of freedom of movement that young female informants often do not experience in the past. Zone of free explorations are broadened. An area becomes no threaten and penalty for females to play and have fun in adjusting their learning speed and repeating their learning styles. For example,

I prefer simulation game-based e-books. I am willing to spend some time to play it every day. It is a good choice for me to learn English via it. Simulation games attracting me cause from the contents. For example, it can be like “happy farm” which I can work it, make friends and get knowledge of farm. Now, it can provide English version or content so that I am able to learn some English vocabularies through playing it. (Rene, 22 yrs, female, undergraduate student)

I love playing simulation game-based English e-books because I am the master to control the roles and pace. I am a slow learner so that it allows me to take my time to learn English and read the details. Or I can check the dictionary to learn the vocabulary by my own way. (Etta, 21 yrs, female, undergraduate student)

The results of our data also release that Taiwanese young adults, especially females, are on the move. Their thoughts and behaviors are changing to learn English via playing game-based e-books. Both male and female young adults tend to goal-orientations and are interested in mental rotation, simulation and adventure game-based English electronic books. The reason why these kinds of game-based English e-books attract them is simple that the challenge motives them. In other words, young female informants gradually accept the challenge of slight mental rotation games. As *Christina (22 yrs, female, undergraduate student)* notes,

What motives me to play a mental rotation game-based English e-book? I think its primary conflict is not so much between players, but rather it is good for me to be trained to figure out a solution which often involves solving enigmas, navigation and even learn how to use different tools and manipulate or reconfigure objectives.

Compared with young male adults, most of young female informants claim that “*I am not smart enough, but I love a small challenge to play and learn English via game-based e-books.*” It means that young female informants are getting to change their behaviors. They know how to face their strengths and weaknesses and gradually realize what they need and want. *Sophia* and *Hedy* give typical examples to explain:

I prefer puzzle game-based English e-books or simple puzzle ones such as Candy crush. I can play

it by myself and control the time and speed. No pressure on me to play and learn English via it. You know it is huge pressure for me to play with others, once we join multiplayer puzzle games. I love simple and single puzzle games because I can play by myself on my own pace. (Sophia, 21 yrs, female, undergraduate student)

I am not smart girl so that I prefer the simple puzzle game-based English e-books to entertain myself and learn English in improving my abilities. I feel no pressure to play once I know how to control the speed. (Hedy, 21 yrs, female, undergraduate student)

Traditionally, gender stereotype exist in real life and education fields that mental rotation, action and adventure games belong to males; on the other hand, socialization games tend to be female preferences. It is worth noting that some young female informants in our data are like most of young male informants to play mental rotation and adventure game-based English e-books. Silverstone (1999) mentioned that play can be used as a metaphor for the analysis of game experiences. We apply it to explain our data and find that the clear distinctions between masculinity and femininity are now getting blurred via playing digital game-based English e-books in Taiwanese culture. Female informants emphasize that “*I am not smart enough. If the adventure games can increase my brain power, I am willing to try.*” Similarly, Jane explains:

Simple adventure game-based English e-books are not quite difficult for me to figure out. Adventure game matches with English sentences will motive me to learn and play the details. Like angry bird, it is simple for me to play, entertain and learn English. If it includes 3 D contents, it will be better to attract me and my friends to play together. You know I don't mind if the adventure game combines with socialization, I can interact with friends and we can figure out how to conquer the problems. (Jane, 24 yrs, insurance saleswoman)

In our data, both male and female prefer mental rotation such as adventure game-based English e-books, but a little bit differences between them. For males, they pursue the speed, fun and excitement with online (technology) interface; on the contrast, female informants love to have interactions with other learners via playing adventure games. *Dave* is a typical case to explain this situation.

I love to play adventure game-based English e-books because interaction with other learners is the key point to motivate me and keep joining the learning process. That is fun and exciting for me to play and learn with others through it. (Dave, 21 yrs, male, undergraduate student)

Basically, our data support the previous Western studies that female informants prefer exclusively on identity, exploration and socialization (Lucas & Sherry, 2004; Kerr, 2006), but females maintain these preferences and gradually adopt and combine mental rotation games with these existing preferences. Interestingly, none of male informants show they love to play socialization types of game-based English e-books. In contrast, most of female informants highlight they love identity and socialization types. They

further explain socialization type of games do not bore them, driving them to play and keep learning. As *Judy* and *Helen* describe,

I can make a team with friends or other foreign strangers. This is the effective way to learn English and have a fun because we have the goal to fulfil. This kind of learning is attractive because I can compete with people in the world. (Judy, 21 yrs, female, undergraduate student)

You know I prefer play adventure and socialization types because the scenario created by ourselves. I can chat with friends and co-create the stories together. In this way, I never feel bored to play and learn. (Helen, 21 yrs, female, undergraduate student)

Unsurprisingly, sports, action and strategy types of game-based English e-books are still male informants' most preferences (Taylor, 2003). AS *Steven* and *Nick* claim,

I love to play basketball in the real world so I try to transfer this hobby onto the game-based English e-book learning platform. It makes me feel good to relax myself, reduce the pressure and have fun. (Steven, 22 yrs, male, undergraduate student)

I love to play baseball. The game-based English e-book learning can math with the baseball which will attract me. I can be trained online. I can become a stronger baseball player since I can keep playing and training my skills. Once I got the points, my skills have been improved. (Nick, 22 yrs, male, undergraduate student)

Although only a few female informants mention they prefer sports games, they do enjoy them. They are happy to compete with their boyfriends via playing sports game-based English e-books.

I play racing or sports types of game-based English e-books with my boyfriends. In the beginning, I didn't really enjoy playing those types, but gradually I felt not bad to compete with him. The reason is we also can communicate with other players. I can leave any time when I feel uncomfortable. (Amy, 22 yrs, female, undergraduate student)

Totally, not only is fun to attract our young Taiwanese informants in playing game-based English e-books, but also achievement-driven motivations largely occur to both females and males in this research.

Theoretically, achievement motivation is based on reaching success and achieving all of our aspirations in life. Achievement goals can affect the way a person performs a task and represent a desire to show competence (Solomon, 2009). Theorists have proposed that people's achievement goals affect their achievement-related attitudes and behaviors. The two different types of achievement-related attitudes are task-involvement and ego-involvement. Task-involvement is a motivational state in which a person's main goal is to acquire skills and understanding whereas the main goal in ego-involvement is to demonstrate superior abilities (Butler, 1999). According to this theory, we find that most of young informants are task-involvements including improving their memory, motivating each other to learn English and adjusting their own study pace. The

following statements are the typical task-involvement examples.

You know playing game-based English e-books needs to learn how to think. The process of thinking is important to enhance my memory abilities. So it provides me an opportunity to think and improve my memory abilities. (Cindy, 26 yrs, female, HR)

I prefer simulation game-based e-books because I can adopt my own pace and preference contents to learn English. For example, I can repeat and listen several times for one sentence. I feel free to learn English by my own style. I love to learn restaurant management so I can play this in English to improve both abilities. This is a good idea for me to play and learn through this way. (Andrea, 21 yrs, female, undergraduate student)

As young informants mentioned, some of them are involved with game-based English e-book learning to reach ego-achievement by demonstrating their superior abilities (Butler, 1999). For example,

I prefer play action game-based e-books. If games can match action features with English, I will be interested at it. Or it can add adventure game features to the English learning. Once I challenge the difficulty of the game, I feel fulfill the goal and increase my learning abilities. (Tony, 27 yrs, male, salespeople)

I prefer simulation games such as driving a train or car, flying, etc. For example, driving a train is my important mission to reach. I need to read manual in English and know how to operate engine system. I love this kind of situation learning. I just like a train driver. It can gain my self-worth through playing this simulation game. (Samuel, 21 yrs, male, undergraduate student)

5. Conclusions

This research shows that the gender gap in playing types of digital game-based English e-book is diminishing. This study builds from these findings by examining different types of digital game-based English e-books not previously subjected to extensive investigation: Gender differences in game types and in preferences for specific applications. In general, data from this study show males' and female's game types appear to differ, but gradually bridge the gender gap. Specifically, young Taiwanese females is driven primarily by interpersonal communication and to a lesser extent in mental rotation games such as puzzle and adventure; in contrast, male play is driven mainly by entertainment, mental rotation or working out brain and sport-orientations. Both males and females love to play simulation game-based English e-books that make them fun, joyful and achievable in learning processes. They improve certain skills and abilities, as well as allow themselves to learn on their own speed and pace. They are also delighted to establish social relationships via playing game-based English e-book learning.

Some previous studies have claimed that digital game-based learning reifies the status quo, favoring society's dominant male population (Davis, 2002; Laurel, 2000). We argue that although gender disparities in technology access and use have been well-documented and continue to persist, the results of this study prove the gender gap can be bridged and the clear distinctions between masculinity and femininity can be blurred by producing a male and female population more diverse in its skills, abilities, experiences and personal characteristics. With such a diverse digital game population looming on the horizon, it will become increasingly important, especially for educations and marketing agencies, to understand the functional relevance digital game has for both female and male users. In this study, we highlight while digital game-based (English) e-book learning continues to flourish in Taiwanese culture/society, it not only renders electronic commerce the dominant form of electronic mediation. It also reorders society into new forms of gender perceptions. Profoundly, digital game-based English e-book learning is no longer a male-dominance in Taiwanese culture, but it has become a component for economic, cultural and equality of rights between the genders.

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。

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：

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）

本研究成果已發表於國際研討會 10th Crossroads in Cultural Studies Conference 2014;並已投稿於國際重要期刊 Game and Culture

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「跨越性別鴻溝：遊戲式英語電子書對不同性別年輕成人產生認知娛樂性、學習意向之建置與驗證」為題。

在學術成就上，本研究結果在 10th Crossroads in Cultural Studies Conference 2014 國際研討論會以「Taiwanese Women on the Move: Not Just Fun and Play on Game-Based Electronic Book」為題，深入探討不同性別(特別是女性)對遊戲式英語電子書型態的偏好與學習意向。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。全文已投重要國際期刊 Game and Culture (Ranking:4/38 in Cultural Studies | 39/72 in Communication)，第一審被評為修改後接受，目前全文正在修改中。

在技術創新，本研究藉由「整合性科技接受與使用理論」(Unified Theory of Acceptance and Use of Technology; UTAUT) 為基礎，同時整合「語言學習認知」、「自主學習」等理論，建構屬於「遊戲式英語電子書學習接受與使用模式」，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接受與使用模式」，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(如掌上型電子書)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女性對特定遊戲的刻板印象，進而影響其學習意向，達成弭平性別在英語與科技的自主使用、學習差異。

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。過往文獻多數以兒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。本研究結果，從性別差異探索遊戲式英語電子書學習學習之接受與使用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。

科技部補助專題研究計畫出席國際學術會議心得報告

日期： 103 年 9 月 10 日

計畫編號	MOST NSC 102 - 2629 - S - 155 - 001		
計畫名稱	跨越性別鴻溝：遊戲式英語電子書對不同性別年輕成人產生認知娛樂性、學習意向之建置與驗證		
出國人員姓名	陳志萍	服務機構及職稱	元智大學管理學院
會議時間	自 103 年 6 月 30 日至 103 年 7 月 4 日	會議地點	University of Tampere, Finland.
會議名稱	(中文) (英文)10 th Crossroads in Cultural Studies Conference 2014		
發表題目	(中文) (英文) Taiwanese Women on the Move: Not Just Fun and Play on Game-Based Electronic Book		

一、 參加會議經過

10th Crossroads in Cultural Studies Conference 2014 為從事跨文化研究的學者提供一次國際性不同文化研究的學術交流機會。今年(2014)於芬蘭的 Tampere 大學舉辦，總投稿論文來自於 85 個國家，共 1950 篇。最後錄取 490 篇，錄取率約為 25.1%，很榮幸本人國科會補助專案(102-2629-S-155-001-)撰寫之文章(Taiwanese Women on the Move: Not Just Fun and Play on Game-Based Electronic Book)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、土耳其、台灣、新加坡、香港，以及荷蘭等國家。國際學者相互介紹其文化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

Crossroads in Cultural Studies Conference 是每年在北歐舉辦的重要文化研討會，今年重要發表與討論議題主要包含：東西文化交流相關議題研究、性別專題研究、文化媒體研究、遊戲與語言教學、認同與認知研究、數位遊戲與文化研究、音樂與藝術文化研究、社交自我與媒體文化投射、全球文化與男性主義、文化線上參與、權力與性別參與，以及文化意義與理論。今年，與會學者每天平均出席研論會約 220 人，參與討論也相當踴躍。本人發表日期為研討會第四天，參與學者

是最多的一天，主要議程是：遊戲與地方 (Plays and Places) 我的研究題目 (Taiwanese Women on the Move: Not just Fun and Play on Game-Based Electronic Book)，另外同場研究學者為英國 Emma Fraser 其研究主題為：Playing in Ruins: Encounters with ruined cities in video games, 以及美國學者 Beth Forrest 其研究主題為：Building a past to Create a future: Washington Irving, Tales of the Alhambra, and a Romantic Republican Vision 正是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，進一步做文化異同的交流，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、 發表論文全文或摘要

Females prefer traditional games such as non-mental rotation games; on the contrast, males prefer mental rotation games. However, the development of the e-book industry integrated with the digital gaming industry has the potential to present media drama, entertainment, and education market; as well as create new values in contemporary Taiwan. In this age when new and old values intersect and cross, women stand at an overall structural special point. This article attempts to look at cultural confrontation and the impact of new technology has on women's fun and play. The data was obtained from fieldwork involving 25 females and 25 males in Taiwan. Different types of game-based English electronic books attracting women's fun and play have emerged. Traditional Taiwanese culture influences women's thoughts and behaviors, and the extent to which patriarchal power intervenes in women's fun and play vary considerably in this research.

四、 建議

本人於此次研討會收穫良多，也因此研討會結識相當多文化研究之國際學者。美中不足的是，雖然本研究獲國科會補助，但因北歐機票費、註冊費、生活費與交通費都相當昂貴，其補助幾乎僅能付機票之費用，其他費用的支出對本人而言是相當大的負擔。建議國科會往後補助專案應依主持人實際支付費用補助，以激勵專案主持人積極參與該領域之國際學術事務。

五、 攜回資料名稱及內容

攜回研討會議程資料、研究會議程，以及研討會論文光碟一份。

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

103 年 7 月 20 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 103 年 6 月 30 日至 103 年 7 月 4 日, University of Tampere, Finland.	計畫核定 補助文號	計畫編號:102-2629-S-155-001-
會議 名稱	(中文) (英文) 10 th Crossroads in Cultural Studies Conference 2014		
發表 論文 題目	(中文) (英文) Taiwanese Women on the Move: Not Just Fun and Play on Game-Based Electronic Book		

報告內容應包括下列各項：

一、參加會議經過

10th Crossroads in Cultural Studies Conference 2014 為從事跨文化研究的學者提供一次國際性不同文化研究的學術交流機會。今年(2014)於芬蘭的 Tampere 大學舉辦，總投稿論文來自於 85 個國家，共 1950 篇。最後錄取 490 篇，錄取率約為 25.1%，很榮幸本人國科會補助專案(102-2629-S-155-001-)撰寫之文章(Taiwanese Women on the Move: Not Just Fun and Play on Game-Based Electronic Book)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、土耳其、台灣、新加坡、香港，以及荷蘭等國家。國際學者相互介紹其文化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

Crossroads in Cultural Studies Conference 是每年在北歐舉辦的重要文化研討會，今年重要發表與討論議題主要包含：東西文化交流相關議題研究、性別專題研究、文化媒體研究、遊戲與語言教學、認同與認知研究、數位遊戲與文化研究、音樂與藝術文化研究、社交自我與媒體文化投射、全球文化與男性主義、文化線上參與、權力與性別參與，以及文化意義與理論。今年，與會學者每天平均出席研論會約 220 人，參與討論也相當踴躍。本人發表日期為研討會第四天，參與學者是最多的一天，主要議程是：遊戲與地方 (Plays and Places) 我的研究題目 (Taiwanese Women on the Move: Not just Fun and Play on Game-Based Electronic Book)，另外同場研究學者為英國 Emma Fraser 其研究主題為：Playing in Ruins: Encounters with ruined cities in video games,以及美國學者 Beth Forrest 其研究主題為：Building a past to Create a future: Washington Irving, Tales of the Alhambra, and a Romantic Republican Vision 正是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，進一步做文化異同的交流，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

本人於此次研討會收穫良多，也因此研討會結識相當多文化研究之國際學者。美中不足的是，雖然本研究獲國科會補助，但因北歐機票費、註冊費、生活費與交通費都相當昂貴，其補助幾乎僅能付機票之費用，其他費用的支出對本人而言是相當大的負擔。建議國科會往後補助專案應依主持人實際支付費用補助，以激勵專案主持人積極參與該領域之國際學術事務。

五、攜回資料名稱及內容

攜回研討會議程資料、研究會議程，以及研討會論文光碟一份。

六、其他

科技部補助計畫衍生研發成果推廣資料表

日期:2014/09/22

科技部補助計畫	計畫名稱: 跨越性別鴻溝: 遊戲式英語電子書對不同性別年輕成人產生認知娛樂性、學習意向之建置與驗證
	計畫主持人: 陳志萍
	計畫編號: 102-2629-S-155-001- 學門領域: 性別與科技研究
無研發成果推廣資料	

102 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：102-2629-S-155-001-				計畫名稱：跨越性別鴻溝：遊戲式英語電子書對不同性別年輕成人產生認知娛樂性、學習意向之建置與驗證	
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%		
	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	3	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	1	0	100%	篇	本研究成果已投稿於國際重要期刊 Game and Culture
		研究報告/技術報告	0	0	100%		
		研討會論文	1	0	100%		本研究成果已發表於國際研討會 10th Crossroads in Cultural Studies Conference 2014
		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	3	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%			

<p style="text-align: center;">其他成果</p> <p>(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。)</p>	<p style="text-align: center;">無</p>
---	--------------------------------------

	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。

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：

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）

本研究成果已發表於國際研討會 10th Crossroads in Cultural Studies Conference 2014；並已投稿於國際重要期刊 Game and Culture

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）

本研究以「跨越性別鴻溝：遊戲式英語電子書對不同性別年輕成人產生認知娛樂性、學習意向之建置與驗證」為題。

在學術成就上，本研究結果在 10th Crossroads in Cultural Studies Conference 2014 國際研討論會以「Taiwanese Women on the Move: Not Just Fun and Play on Game-Based Electronic Book」為題，深入探討不同性別(特別是女性)對遊戲式英語電子書型態的偏好與學習意向。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。全文已投重要國際期刊 Game and Culture (Ranking:4/38 in Cultural Studies | 39/72 in Communication)，第一審被評為修改後接受，目前全文正在修改中。

在技術創新，本研究藉由「整合性科技接受與使用理論」(Unified Theory of Acceptance and Use of Technology；UTAUT) 為基礎，同時整合「語言學習認知」、「自主學習」等理論，建構屬於「遊戲式英語電子書學習接受與使用模式」，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接受與使用模式」，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(如掌上型電子書)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女性對特定遊戲的刻板印象，進而影響其學習意向，達成弭平性別在英語與科技的自主使用、學習差異。

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。過往文獻多數以兒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。本研究結果，從性別差異探索遊戲式英語電子書學習學習之接受與使用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。