

E-BOOK FEATURES THAT ADOLESCENT ENGLISH LEARNERS IN TAIWAN FAVORED

Yi-jung Lin & Chih-cheng Lin

ABSTRACT

This study aims at exploring the features of e-books that adolescent EFL (English as a foreign language) students in Taiwan favored. This study recruited 109 ninth graders in a junior high school in northern Taiwan to participate in a 10-week extensive reading program (ERP) of 140 available e-books. During the experiment, they read an e-book together and participated in a 10-minute discussion in class every Monday. They were also encouraged to read more outside class. After reading an e-book, they filled out a self-report form; and, at the end of the program, they completed a questionnaire on their overall reactions to the program. The teacher also collected field notes by observing the participants' reading behaviors and reactions as well as their spontaneous oral or written feedback in class, serving for triangulation with the other data. The results showed that our participants reported five features of e-books that they liked and found helpful, including oral reading, highlighting, pictures, animations, and music/sound effects. In addition, they were attracted to e-books that offer interactive and control functions. This study concluded that e-books with features that adolescent English learners favored were those that helped to increase their reading interest and motivation; also, e-book reading programs may help to develop adolescent learners' reading in English.

Key Words: computer-assisted reading, e-books, extensive reading program, features of e-books

INTRODUCTION

Computer technology has become a part of our lives and is moving to the state of "normalization" (Bax, 2003). It is common nowadays for adolescents to use computers daily to search for information, to entertain

themselves with multimedia input, and to continue social interaction with their peers after school. Nevertheless, whether adolescent learners of English appreciate the multimedia functions built into interactive CD-ROM storybooks or talking books is an issue worth exploring. Adam and Wild (1997) indicated that language teachers may use computer technology as an intervention strategy to improve language learners' reading, which could be achieved solely by presenting texts in multimedia formats. Features of multimedia e-books, such as oral reading, highlighting, and animations, have already changed the nature of reading. Researchers highly recommended that the audio element be integrated with reading input (Davis, 1995; Day & Bamford, 2002; Fry, 1991; Kim & Hall, 2002; Labbo, 2000; Smith, 2001; Underwood & Underwood, 1998). The main reason for this recommendation is that the audio-visual combination not only offers students an escape from routine lectures in traditional classrooms but also promotes and encourages interest in learning.

Because interest is vital to increasing motivation to read, e-books themselves should be interesting and attractive enough to stimulate learners so that they may "possess both the skill and the will to read" (Gambrell, 1996). It is suggested that a literature-based reading program (Chu, 1995) be employed to encourage students to read, to spend more time reading, to foster the love of reading (Gambrell, 1996), and to develop the reading habit in the long run (Adam & Wild, 1997; Alexander, 1991). Similarly, extensive reading programs (ERPs), with emphases on a range of good reading materials, the choice of readers' self-selection and the underlying philosophy of enjoyment (Asraf & Ahmad, 2003; Davis, 1995) from reading in large quantity, are suitable for the use of e-books. The various multimedia features of e-books found in highly interactive audio or digitalized texts can serve as multiple inputs for readers, and perhaps motivate them to read more.

While previous studies were largely concerned with the cognitive effects of e-books or extensive reading (ER) on language learning and reading comprehension, few of them explored what features attracted language learners to read more (McKenna & Kear, 1990; Yamashita, 2004). In response to this imbalance, Gambrell (1996) suggested a more equal attention to "both affective and cognitive aspects of reading development." Furthermore, the bulk of previous research regarding e-books probed into the effects of interactive CD-ROM storybooks or talking books on English-speaking primary school students or

kindergarteners, but little research focused on the free, short and easy online e-books utilized in the present study and very few studies examined the features of e-books that adolescent English learners favored. With e-books as a new medium in an ERP, the purpose of this study is, therefore, to explore the features of e-books that adolescent EFL learners like most. The main research question addressed in the study is, therefore: What features of e-books do adolescent English learners in Taiwan favor?

LITERATURE REVIEW

The following review begins with an outline of the theoretical backgrounds to extensive reading. It then discusses computer-assisted reading and e-books, including both positive and negative effects on readers/learners. Then, the review addresses the issue of using e-books in ERPs and ends with a description of the rationale of the present study.

Extensive Reading Programs

Extensive reading has its theoretical roots in Krashen's Input Hypothesis (1982), which made a distinction between acquisition and learning. According to Krashen, second language acquisition is characterized by the subconscious "picking up" of language, a process similar to the first language development of children. Krashen (1982, 1985) emphasized that the key to successful language acquisition is learners' repeated exposure to substantial amounts of comprehensible input which was neither too difficult nor too easy for them. More specifically, if the learning material is comprehensible enough for learners, they will be able to infer the meaning from the context. Furthermore, if learners are repeatedly exposed to new vocabulary, expressions, structures, and aspects of discourse by reading abundantly, they will gradually figure out meanings and forms of the language, and, meanwhile extend and deepen their understanding of more familiar forms, as in the way that learners acquire much of their first language (Krashen, 1988). Also, Krashen (1989), in a wide review of research on vocabulary and spelling, concluded that while the conscious learning of linguistic skills had some effects, the importance of comprehensible input in second language development can never be overstated. He further argued that extensive reading, if not alone, is one of the most effective ways of acquiring

languages.

The concept of Krashen's input hypothesis manifests essential principles in extensive reading and supports the application of ERPs in a number of studies. Hafiz and Tudor (1989, 1990), for example, found that the use of graded readers in ERPs significantly enhanced learners' language skills, such as reading, writing, as well as fluency and accuracy of expression. In other words, learners benefit from comprehensible input both receptively and productively. Similarly, in Chen, Kao, and Sheu's study (2003), learners who were exposed to graded readers showed significant improvement in language proficiency test composed of vocabulary, grammar, and reading comprehension. Chen et al. (2003) suggested that the use of ERPs, which create a reading environment allowing learners to read for meaning and pleasure, should be encouraged.

Nevertheless, while extensive reading is supposed to improve overall language proficiency (Iwahori, 2008) and have facilitating effects on various language abilities and skills (Krashen, 1993), such as reading comprehension, vocabulary, grammar, spelling, and writing, the results of some recent studies revealed that not all skills show equal improvement over a limited period of time. For example, in Yamashita's (2008) study, a significant improvement in reading ability was found, but not in linguistic ability, which suggested that the effects of extensive reading might be manifested more quickly in learners' general reading skills than in their linguistic ability. Likewise, it was found that extensive reading significantly improved reading fluency (Iwahori, 2008), but the growth of vocabulary knowledge was comparatively limited within a short term (Modirkhamene & Gowrki, 2011). Regardless of some differences in the effects, the bulk of the studies on extensive reading, based on the concept of comprehensive input, were supportive of the use of ERPs in language teaching.

With regard to the text difficulty in extensive reading, discrepancy has been shown between texts slightly below and above learners' current proficiency. Some scholars argue that learners' fast and easy reading by learners occurs when they are provided with texts at the *i* minus 1 level (Arnold, 2009; Day & Bamford, 1998). In other words, extensive reading texts should contain "only a very small number of unknown words and difficult syntactic structures" (Day & Bamford, 1998, p. 18) to facilitate the building of the learners' confidence building in reading. On the contrary, Krashen (1988, 1989), who proposed the idea of

comprehensible input (*i* plus 1), emphasized the importance of offering learners materials slightly beyond their current level. In this case, learners are encouraged to form ideas of the meaning and linguistic usage from texts, and simultaneously, deepen and extend their understanding of more familiar ones just as how learners acquire much of their first language (Krashen, 1988). Despite the controversy over the most suitable extensive reading texts, a more comprehensive way of settling the disagreement is to offer learners materials ranging from “i-1” to “i+1” (Chen et al., 2003; Yamashita, 2004), such as graded readers. Accordingly, supplying ample reading materials for learners to choose from becomes essential in ERPs. Full respect to learners’ free selection of materials is considered a practice that gives them the responsibility for their own learning and enhances their motivation to read (Lee, 2007). Researchers (Chen et al., 2003; Grabe, 2009; Ivey & Broaddus, 2001; Jenks & Brinham, 2012; Lee, 2007; Worthy, 2002) have agreed upon self-selection since it may help learners maintain interest and develop reading autonomy in the long run. ERPs have been used as an effective way of creating enjoyable reading experiences and enhancing reading skills. Interesting short texts of varying levels that conform to learners’ “reading comfort zone” (Day & Bamford, 2002) are highly recommended for successful ERPs.

Computer-Assisted Reading and E-Books

The use of computers in reading instruction can be traced back to the 1960s, but the impact of computer-assisted reading was not noticed until the early 1980s (Adam & Wild, 1997). From Rosenblatt’s perspective of “efferent” and “aesthetic” reading (1994), computers used to be adopted to support efferent reading by asking students to search information; however, with the rapid development of computer technology, complex interfaces of educational software can foster aesthetic reading by “evoking experiential meaning from the text” (Chu, 1995). E-books have attracted researchers’ attention since the last decade in that they can simultaneously provide readers with visual and audio input, and this kind of dual-mode form of language learning has long been recommended by researchers interested in the effects of ERPs (Davis, 1995; Day & Bamford, 2002; Fry, 1991; Kim & Hall, 2002; Labbo, 2000; Smith, 2001; Underwood & Underwood, 1998). Studies comparing the effects of e-books and adult readers revealed that e-books have similar effects on

children as teacher-guided reading (Doty, Popplewell, & Byers, 2001) and printed books read aloud by adults (De Jong & Bus, 2004; Korat & Shamir, 2007).

Among the previous studies related to e-books, most of the participants were native young learners, aging from 3 to 12 years old (Doty et al., 2001; Grimshaw, Dungworth, McKnight, & Morris, 2007; Korat, 2010; Korat & Shamir, 2007, 2008; Labbo, 2000; Lefever-Davis & Pearman, 2005; Lewin, 2000; Matthew, 1996; Maynard & McKnight, 2001; Okolo & Hayes, 1996; Shamir, Korat, & Barbi, 2008; Segal-Drori, Korat, Shamir, & Klein, 2010; Segers & Verhoeven, 2002; Shamir & Korat, 2006; Smith, 2001; Trushell, Burrell, & Maitland, 2001; Trushell, Maitland, & Burrell, 2003; Underwood & Underwood, 1998). This is not surprising since young learners, possessing a higher level of electronic literacy and lower computer anxiety compared, compared with adult learners, make themselves more suitable users of e-books. Moreover, the multimedia features not only capture young learners' attention but also stimulate their motivation and interest in reading. The supportive functions of e-books, such as an embedded dictionary, highlighting during oral reading and printing, can increase learning effectiveness as well (Korat & Shamir, 2007; Maynard & McKnight, 2001). The interactive nature of e-books were found to particularly benefit young learners with reading difficulties (Boone & Higgins, 2003; Chera & Wood, 2003; Lewin, 2000) by encouraging reluctant students to read (Adam & Wild, 1997), supporting their development of literacy (Labbo, 2000), improving reading comprehension (Doty et al., 2001), and raising their phonological awareness (Chera & Wood, 2003).

Positive and Negative Effects of E-Books

While the bulk of previous research on e-books has reported positive effects, there have been studies reported neutral or negative results. This discrepancy, mainly due to differences in research design, also reflects the double-edged nature of e-books. Lewin (2000) claimed that e-books can positively affect both cognitive and affective learning outcomes. Considerable data support the cognitive effects of e-books, such as story retelling (Lefever-Davis & Pearman, 2005; Matthew, 1996), vocabulary development (Korat, 2010; Korat & Shamir, 2007, 2008; Lefever-Davis & Pearman, 2005; Lewin, 2000; Segers & Verhoeven, 2002; Segal-Drori et al., 2010), reading comprehension (Boone & Higgins, 2003; De Jong

& Bus, 2004; Doty et al., 2001; Grimshaw et al., 2007; Korat, 2010; Korat & Shamir, 2007, 2008; Lefever-Davis & Pearman, 2005; Lewin, 2000; Matthew, 1996; Segal-Drori et al., 2010; Shamir et al., 2008; Smith, 2001; Trushell et al., 2003), and phonological awareness (Chera & Wood, 2003; Lewin, 2000; Segal-Drori et al., 2010). As for the affective effects, young learners are motivated to read and their reading attitude become more positive (Adam & Wild, 1997; Arnold, 2009; Chu, 1995; Lefever-Davis & Pearman, 2005; Matthew, 1996; Segers & Verhoeven, 2002; Smith, 2001; Underwood & Underwood, 1998).

On the other hand, the negative effects of the use of e-books can be summarized by Lefever-Davis and Pearman's (2005) categorization of four negative reading behaviors. The first negative reading behavior, distraction, caused by irrelevant or incongruous animations in e-books (Matthew, 1996; Moody, 2010; Underwood & Underwood, 1998; Zucker, Moody, & McKenna, 2009), usually results in interference with story comprehension (De Jong & Bus, 2004). In Trushell et al.'s study (2001), the participants seemed to lose the plot with poor recall of the macro-propositions of the story. Besides, cued animations and sound effects may encourage children to ignore the written text (Trushell et al., 2003). The findings imply that e-books may not necessarily enhance reading comprehension, but may impede understanding of the content. The second negative reading behavior, electronic feature dependence, discourages young learners from decoding the reading text with alternative strategies by themselves, finally leading to the hindrance of literacy development (Lewin, 2000). This behavior is, in fact, against the purpose of training in reading skills. Third, e-books may reinforce spectator stance of young learners who become passive readers or outsiders in the reading activity. Labbo (2000) noticed that watching and listening to, instead of reading, e-books on the computer page by page "might foster passivity in children that is similar to a TV-watching mode." Last, with dense animations and automatic oral reading function of e-books, electronic feature limitations of current computer technology make the displaying speed of texts too slow for young readers, who then soon turn to the spectator stance.

Given the both positive and negative effects, it should be noted that e-books are not used to replace print but to complement or support it (De Jong & Bus, 2004; Labbo, 2000; Lewin, 2000; Matthew, 1996; Maynard & Cheyne, 2005). Also, a distinction between "educational versus edutainment software" (Segers & Verhoeven, 2002) must be made when

selecting e-books for young learners.

E-Book Reading Program

E-books in recent years imply electronic texts with multimedia features (De Jong & Bus, 2004; Korat & Shamir, 2007), such as oral reading, highlighting, pictures, animations, music and sound effects. The multiple functions and features of the educational software can increase the “level of user interactivity and the extent of user control in choosing directions” (Chera & Wood, 2003, p.35), which will result in autonomy in reading as well. The multimedia features of e-books can not only capture young learners’ attention but also stimulate their reading interest and motivation. Maynard and McKnight (2001) pointed out that children can benefit from these added features of e-books, which is in accordance with Korat and Shamir’s claim (2007) that e-books with different multimedia features have “potential to expand the children’s knowledge of the story events by adding information that does not appear in the original story text” (p.248). Nevertheless, e-books may be motivating on the one hand but distracting on the other hand owing to their diverse multimedia features (Matthew, 1996; Moody, 2010; Zucker, et al., 2009). For example, in Zucker et al.’s (2009) review study of e-books, their findings indicated that digital animations range from “supportive, supplementary, considerate hotspots” to “unsupportive, incidental, inconsiderate hotspots that are irrelevant to the story, distracting, and often unrealistic,” (p. 78) which means that not every multimedia feature of an e-book may facilitate reading comprehension. Also, previous research lacked an understanding of what features of e-books really matter for learners, the issue with which we are concerned in this study.

There are researchers who implicitly illustrate the missing relationship between e-books and ERPs. Desrosiers (1996) and Anderson-Inman and Horney (1999) argue that e-books are particularly suitable for enhancing learning outside the classroom, which corresponds to one of the aims of ER. In Chu’s study (1995), she advocates using e-books in a computer-based literature reading setting where participants demonstrated aesthetic reading experiences of being “absorbed in the world of texts.” Similarly, Sun (2003) utilized an online reading program, Extensive Reading Online, to encourage the participants to read extensively and to train their reading strategies. Given the positive feedback from the learners, Sun concluded that the online reading

program can enhance “learner autonomy, independence, and long-term reading interest.” The significance of Sun’s study lies in the use of online electronic resources, rather than printed books, and the integration of the online learning platform with the concept of ER by asking the participants to read and post the articles they enjoyed. More recently, Arnold’s (2009) online extensive reading program for advanced learners not only successfully increased their motivation to read, but also enhanced their confidence and ability in L2 reading. While most of the previous studies of e-books were concerned with children or young learners, Huang (2013), in one of the more recent studies, targeted university students and investigated their perceptions of an e-book reading program. The participants not only provided positive feedback on the program and its learning effects, but also appreciated the potential of e-books to motivate their reading behaviors and cultivate better reading habits.

The present study aimed to explore what e-book features EFL adolescent learners favored for the following reasons. Findings in previous studies confirmed that young learners were attracted to multimedia functions in-built in e-books (Trushell et al., 2001; Trushell et al., 2003); however, there was no survey of e-book features that learners preferred to use and that learners found helpful to their learning. The answer to the question of e-book features helps us understand what features learners need most when engaged in reading e-books. EFL adolescent learners were chosen mainly because of their limited chances to exercise their English in reading authentic materials. In Taiwan, EFL adolescent learners, including the ninth-graders recruited in the present study, are bombarded with quizzes and tests on their English abilities. They have few chances to explore reading materials other than their textbooks; thus, an ERP might give them chances to do so. Also, in the Internet era, adolescents’ opinions about e-book features will provide language professionals as well as instructional designers information about what they favor and what they perceive helpful. Their netizen’s feedback might shed light on developments in constructing multimedia-based learning materials. Finally, their level of proficiency in English, including vocabulary size and grammatical knowledge, was appropriate for the content of the e-books selected for the present study. Authentic online texts for adolescents would be difficult in terms of the language, length and content.

METHODS

Participant

The study recruited 109 ninth-graders (52 boys and 57 girls) from three intact classes in a junior high school in northern Taiwan. They were beginners of English based on the fact that their textbooks were written in the 1,200 words of Basic English Vocabulary required by the Ministry of Education (Ministry of Education, 2012). None of the participants had passed the Beginners' Level of the General English Proficiency Test, equivalent to the expected level of a graduate of a junior high school (Language Training & Testing Center, 2012).

Materials

The criteria for the selection of the materials used in the present study were based on the principles suggested for the selection of materials to be used in ERPs. First and foremost, the e-books cannot be long in length. Short texts, which learners can finish in 20 to 30 minutes, are considered far more effective than long ones, primarily because learners can acquire the feeling of achievement (Green, 2005; Hafiz & Tudor, 1989; Macalister, 2007). Also, the level of difficulty cannot be high. Easy materials, especially those with 95 to 98 percent of known words, are highly recommended (Asraf & Ahmad, 2003; Hitosugi & Day, 2004). With these guidelines as standard, the decisive factor still lies in the pedagogical purpose of using e-books, such as to promote reading comprehension, to encourage decoding, or to arouse interest in reading (Anderson-Inman & Horney, 1999; Lefever-Davis & Pearman, 2005).

In our study, the purpose of using e-books in an ERP is to find out what e-book features attract our participants' attention, so the e-books chosen are supported by multimedia functions in a wide range of choices in terms of their levels, genres, multimedia features and supportive functions. The 140 e-books selected from nine websites (see Appendix A) were categorized into five genres. The number and type of each genre are as follows: 67 Stories (47.86%), 52 Nonfiction (37.14%), 14 Fairy Tales and Fables (10.00%), 4 Poems (2.86%), and 3 Plays (2.14%). The multimedia features, including pictures, animations, oral reading, highlighting, and music/sound effects, were listed on a sheet for participants' reference.

Instruments

The instruments used to collect the data in this study include a self-report form (see Appendix B), field notes of discussion in class, a reaction questionnaire (see Appendix C) and a back-up semi-structured interview. The self-report form was designed to collect what features of the e-books that participants felt interested and helped them the most. In addition, the teacher's field notes made for triangulation were collected when the participants read e-books and discussed them in class every Monday during the 10-week experiment. Aside from observing the responses, behaviors and emotions of the participants, the teacher-researcher asked questions related to the e-books to stimulate them to read more and encourage them to share what they had learned and what they thought of reading in English, including their favorite e-books and features, the reasons behind their decisions in choosing an e-book to read, their perceptions of their progress of reading in reading in English and their feelings about this reading activity in general. Moreover, a reaction questionnaire was administered on the day after the whole reading program ended. This questionnaire, with open-ended questions, investigated the crucial factors and reasons for the participants to decide which e-book to read. This questionnaire helps to answer the research question of e-book features; and, the responses can be triangulated with the related results from the self-report form regarding the e-book features. Those who had particular reading preferences and distinct reading attitudes toward reading in English but failed to express themselves clearly in the questionnaire were potential interviewees for the back-up semi-structured interview.

Procedure

Prior to the experiment, the teacher introduced the 10-week e-book ERP to the participants. Firstly, the teacher clearly told the participants the underlying spirit, weekly and final goals, and required tasks of this program, in an attempt to create a relaxed, pleasant as well as lively atmosphere for the experience of reading e-books. Second, in a training session in a computer classroom, the teacher taught the participants how to access to a prepared book list where all the e-books materials are available.

After the introductory session, the participants were required to read

one e-book in class every Monday and encouraged to choose another three e-books that were of interest to them and suitable for them to read on their own at home each week. After reading one e-book, they were required to fill out a self-report form. Every Monday during the 10-week reading program, a 10-minute oral discussion was held on their experience of reading e-books for sharing of opinions and feedback. After the program ended, the participants were guided to briefly provide their retrospections on their experience of the e-book ERP and fill out the reaction questionnaire to express their general opinions and feelings about the e-books as well as the reading activity. Finally, according to the data collected from the self-report forms, the participants who showed certain reading patterns and opinions but failed to express themselves in the reaction questionnaire were selected for a back-up semi-structured interview.

RESULTS

The results of this study are based on the data collected from self-report forms and from reaction questionnaire written by the students. The teacher's field notes were also analyzed in order to compare and contrast the results found in the students' self-report forms and reaction questionnaire. The presentation of the results follows the order of sections in the self-report form.

Number of the Self-Report Forms

Of the 109 participants, eight were not counted into the results for failing to finish reading at least 10 e-books in 10 weeks. A total of 2,352 self-report forms had been collected from 101 participants at the end of the e-book reading program. The average number of e-books read by each participant in the 10-week program was 23.29 and that of e-books read per week was then 2.33. One student read 60 e-books (the maximum) and six finishing reading the minimum requirement of 10 e-books. The number of e-books read by the participants is shown in Table 1 below.

Table 1. Number of E-Books Read by the Different Groups

Groups: Number of E-books Read	Number of Participants		Number of E-books	
	<i>N</i>	%	<i>N</i>	%
All	101	100.00	2,352	100.00
G4: 40 and more	9	8.91	451	19.18
G3: Between 30 and 39	16	15.84	544	23.13
G2: Between 20 and 29	29	28.71	684	29.08
G1: Between 10 and 19	47	46.53	673	28.61

As shown in Table 1, the participants in the largest group G1 (47, 46.53%) finished less than 20 e-books in the program; and altogether the participants in this group read a total of 673 e-books (28.61%). As the number of e-books read increased to 29 (G2; 684, 29.08%) and 39 (G3; 544, 23.13%), the number of the participants decreased to 29 (28.71%) and 16 (15.84%), respectively. Nine participants in G4 (8.91%) read more than 40 e-books as recommended and encouraged by the e-book ERP (451, 19.18%); that is, they read one e-book in Monday's class and another three or more at home. The following discussions will be based upon the four groups of e-books read, that is, the group that read more than 40 e-books (G4), the group that read between 30 and 39 e-books (G3), the group that read between 20 and 29 e-books (G2), and the group that read between 10 and 19 e-books (G1).

Time Spent on Reading E-Books

From the self-report forms, the average time that the participants spent on reading an e-book was 6.51 minutes. Table 2 shows the distribution of the reading time among the 2,352 self-report forms.

Table 2. Time Spent on Reading E-Books

Time Spent	N	%
Less than 5 minutes	1,356	57.65
Between 6 and 10 minutes	629	26.74
Between 11 and 15 minutes	156	6.63
More than 16 minutes	211	8.97
Total	2,352	100.00

More than half of the e-books (1,356, 57.65%) were finished within 5 minutes and about a quarter of the e-books (629, 26.74%) between 6 to 10 minutes. As for the rest of the e-books (367, 15.60%), the participants spent more than 10 minutes on them.

E-Book Genres

The proportion of the e-books in each genre read by the participants was consistent with that prepared for the program. The participants preferred reading Stories (1,233, 52.42%) more than other genres and Plays received the least attention (68, 2.89%) as shown in Table 3.

Table 3. Number and Genres of E-Books Read by Each Group

Groups	Stories		Nonfiction		Fables		Poems		Plays		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
All	1,233	52.42	632	26.87	336	14.29	83	3.53	68	2.89	2,352	100.00
G4	185	41.02	185	41.02	58	12.86	14	3.10	9	2.00	451	100.00
G3	297	54.60	133	24.45	76	13.97	24	4.41	14	2.57	544	100.00
G2	349	51.02	198	28.95	82	11.99	30	4.39	25	3.65	684	100.00
G1	402	59.73	116	17.24	120	17.83	15	2.23	20	2.97	673	100.00

As shown in Table 3, the participants read Stories the most (1,233, 52.42%). Stories and Fables together made up two-thirds (1,569, 66.71%) of the e-books that have been read by the participants while Nonfiction (632, 26.87%) accounts for a quarter. For the last two literary genres,

Poems (83, 3.53%) and Plays (68, 2.89%), few participants were interested in reading them.

In each of the four groups, Stories was the most popular of the five genres. Except for the G4 group, more than half of the self-report forms were on reading Stories in the other three groups. The numbers were 297, 54.60% for the G3 group, 349, 51.02% for the G2 group, and 402, 59.73% for the G1 group, respectively, which is consistent with the whole group aforementioned. In the G4 group, however, both Stories and Nonfiction received an equal number of reports (185, 41.02%). In particular, in terms of the reading of Nonfiction in the G4 group, not only was number (185) of e-books read but also the percentage (41.02%) was higher than in the other three groups. These results show that the participants in the G4 group, who read more e-books than those in the other three groups, are more willing to read other genres than just Stories and Fables.

E-Book Length

The length of the e-books ranged from 3 pages to 50 pages and the average length was 12.59 screen turns or pages long (S.D.=7.00). Table 4 shows the results of the judgments on the length of the e-books by each group.

Table 4. Percentages and Counts of Judgment on E-Book Length

Groups	Suitable		Too long		Too short		Total	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
All	1,798	76.44	285	12.12	269	11.44	2,352	100.00
G4	382	84.70	32	7.10	37	8.20	451	100.00
G3	444	81.62	51	9.38	49	9.00	544	100.00
G2	476	69.59	103	15.06	105	15.35	684	100.00
G1	496	73.70	99	14.71	78	11.59	673	100.00

More than 80% of the responses in both the G3 (81.62%) and G4 (84.70%) groups reported that the length of the e-books was suitable, while in the G1 and G2 groups, the percentages were around 10% lower, 69.59% and 73.70%, respectively. Moreover, the percentages of responses reporting that the length of the e-books was either too long or too short were higher in the G1 (too long: 14.71%; too short: 15.35%)

and G2 (too long: 15.06%; too short: 11.59%) groups than those in the G3 (too long: 9.38%; too short: 9.00%) and G4 (too long: 7.10%; too short: 8.20%) groups. Based on the overall responses (76.44%) which reported suitable length, the researcher found that e-books with 10 to 25 pages are more acceptable to our participants. Nevertheless, it was found that the judgment of the suitability of the length of the e-books was, to a certain degree, related to the English proficiency of the participants. For example, for those of a higher proficiency (upper 25.69%; top 28) in the present study, loosely judged based on their overall academic achievements during the previous two years, 40 pages was a suitable number, whereas for those of lower proficiency (lower 25.69%; bottom 28), even 3 pages were too long.

E-Book Content

As far as the content of the e-books was concerned, more than eighty percent of the responses were positive (80.10%), while less than one fifth (19.90%) were negative, as shown in Table 5. There was no obvious difference between the groups, but the G3 group was the only one in which the percentage of those reporting a dislike of the content reached 25%, while in the other groups it was around or lower than 20%.

Table 5. Liking or Disliking of the E-Book Content

Group	Like		Dislike		Total	
	N	%	N	%	N	%
All	1,884	80.10	468	19.90	2,352	100.00
G4	385	85.37	66	14.63	451	100.00
G3	407	74.82	137	25.18	544	100.00
G2	554	80.99	130	19.01	684	100.00
G1	538	79.94	135	20.06	673	100.00

The reasons for liking and disliking e-books can be categorized in four aspects: overall feelings after reading, the content structure, the e-book features, and learning after reading. First, the participants in the study were more attracted to e-books whose contents were positive in an interesting, innocent, touching, warm, novel, or exciting way, than negative ones with harsh, boring, childish, or odd plots and details. Also, e-books that teach people moral lessons but involve unpleasant

characters or the cruel side of reality were not liked, either. Second, the participants favored e-books with a suitable content structure, reflected in appropriate length and difficulty. Texts that were considered too long, too short, too difficult or too easy were not favored by them. Third, the participants showed a preference for e-books with multiple and substantial features. According to the feedback, major features, such as pictures, oral reading, animations, highlighting, music and sound effects, were essential to a popular, successful English e-book, while minor features, like printing, were less important in an e-book. What was noteworthy is that some of the participants praised the interactivity between the text and its reader by the use of games or activities and the controllability of other e-book features, such as the speed of oral reading, the automatic playing of animations and the pause function as well as pronunciation of a single word. Fourth, the participants were surprised and satisfied to find that reading English e-books helped them learn not only English but also knowledge of other subjects as well as some moral lessons. These benefits consequently enhanced their interest in reading in English. In a word, e-books without educational meaning and a learning focus or theme related to either English or life were regarded as lacking in content. In addition to the above four aspects, the technology, or the internet itself, sometimes played a role in influencing our participants' comments on the e-books. More specifically, some websites which could not provide smooth and ready access to the e-books might ruin readers' interest in reading or encourage the spectator stance as Lefever-Davis and Pearman (2005) observed.

E-Book Features

The results concerning e-book features that are popular (defined as favored by the participants) and helpful among the participants are shown in Table 6 below. Pictures was found most popular (1,828, 77.72%) and most helpful (1,772, 75.30%) while Printing out the e-books least popular (286, 12.16%) and least helpful (204, 8.67%) among other features.

Table 6. Popular Features and Helpful Features

Popular Features													
Groups	N	Pictures		Animations		Reading		Highlighting		Music		Printing	
		N	%	N	%	N	%	N	%	N	%	N	%
All	2,352	1,828	77.72	1,522	64.71	1,407	59.82	1,016	43.20	573	24.36	286	12.16
G4	451	336	74.50	301	66.74	323	71.62	233	51.66	63	13.97	14	3.10
G3	544	426	78.31	346	63.60	303	55.70	209	38.42	169	31.07	82	15.07
G2	684	557	81.43	428	62.57	437	63.89	330	48.25	145	21.20	122	17.84
G1	673	509	75.63	447	66.42	344	51.11	244	36.26	196	29.12	68	10.10

Helpful Features													
Groups	N	Pictures		Animations		Reading		Highlighting		Music		Printing	
		N	%	N	%	N	%	N	%	N	%	N	%
All	2,352	1,771	75.30	1,411	59.99	1,542	65.56	1,073	45.62	503	21.39	204	8.67
G4	451	341	75.61	290	64.30	348	77.16	323	71.62	44	9.76	6	1.33
G3	544	440	80.88	324	59.56	326	59.93	325	59.74	155	28.49	58	10.66
G2	684	531	77.63	395	57.75	453	66.23	479	70.03	143	20.91	92	13.45
G1	673	459	68.20	402	59.73	415	61.66	271	40.27	161	23.92	48	7.13

Of all the popular features, the results showed that Pictures (1,828, 77.72%) and Animations (1,522, 64.71%), two visual aids, are more favored than reading comprehension. Then, two related features, Reading text out loud (1,407, 59.82%) and Highlighting text while reading (1,016, 43.20%), followed. Other features, such as playing background music and sound effects (Music; 573, 24.36%) and printing out the e-books (Printing; 286, 12.16%), were less attractive. For the helpful features, all rankings were the same as those for the popular features, except for the second and the third. Pictures (1,771, 75.30%) still remained at the top of the list for helpful features. Our participants considered the feature of Reading text out loud (1,542, 65.56%) more helpful than the visual aids of Animations (1,411, 59.99%). Then, Highlighting text while reading (1,073, 45.62%), playing background music and sound effects (Music; 503, 21.39%) and printing out the text (Printing; 204, 8.67%) follow behind in that order.

For the four groups, Pictures were still the most welcomed feature of all; and, they were considered the most helpful among the groups, except for G4. Unlike the list of popular features mentioned above, participants in G4 and G2 preferred Reading to Animations. In G4, there was a difference of 5% between Reading (323, 71.62%) and Animations (301, 66.74%); and, in G2, the differences between Reading (437, 63.89%) and Animations (428, 62.57%) were about 1%. In the list of helpful features, the rankings in each group did not correspond to those found among all participants. For example, the participants in G4 found Reading the text out loud (348, 77.16%) the most helpful with Pictures (341, 75.61%) the second; and, the feature of Highlighting text while reading (323, 71.62%) was considered more helpful than that of Animations (290, 64.30%). In G3, there were only slight differences between the second, Reading (326, 59.93%) and the third, Animations (324, 59.56%) and between the third and the fourth, Highlighting (325, 59.74%). In G2, Highlighting (497, 70.03%) received more counts than Reading (453, 66.23%) and was the second ranked. The rankings in G1 corresponded to those of all participants.

Our adolescent participants, in general, enjoyed reading with some visual aids to comprehension, either pictures or animations; and, they considered illustrations, either static or dynamic, helpful in comprehending texts. The participants also liked the audio-visual aids to textual learning, that is, the functions demonstrating how texts were pronounced; these functions of text reading and highlighting were considered helpful. The participants of the G2 group, who read the most e-books, considered the function of reading text out loud more helpful in learning than pictures. Other functions, such as playing background music and sound effects and printing out the texts, received relatively little attention in terms of their popularity and helpfulness.

On the opposite side, according to our participants' self-report forms, Printing was most unpopular (389, 15.97%) of all the features; and, Printing was the most unhelpful feature (595, 24.43%), too. Interestingly, Pictures were ranked second in both lists, receiving 102 (4.19%) for the unpopular and 101 (4.15%) for the unhelpful features. The other features in the unpopular list are Oral Reading (93, 3.82%), Highlighting (89, 3.65%), Animations (67, 2.75%), and Music/Sound (49, 2.01%). In the unhelpful list, the other features are Highlighting (91, 3.74%), Music/Sound (63, 2.59%), Animations (49, 2.01%), and Oral Reading (47, 1.93%). Except for Printing, our participants welcomed and

accepted other features found in the e-books that they read.

In general, Pictures was considered the most popular and helpful feature, receiving more than 75% of positive responses; Animations and Reading text out loud, with percentages from 59% to 65%, were features second to Pictures in popularity and helpfulness. For the less popular and helpful features, Highlighting, not as widely accepted as the above features, still received about 43% of positive responses, while Music received only around 20 to 25%. Finally, Printing was the least popular and helpful feature of e-books, with lower percentages of popularity and helpfulness around 8 to 12%.

E-Book Levels

Of the self-report forms collected, 77.98% of the responses indicated that the level of e-books was suitable, while 18.41% mentioned that the texts were too easy and 3.61% reported that the e-books were hard to understand (see Table 7). This result suggested that most of the e-books in our reading program were within the “reading comfort zone” (Day & Bamford, 2002) of our participants.

Table 7. Judgment of E-Book Levels

Groups	Suitable		Too easy		Too difficult		Total	
	N	%	N	%	N	%	N	%
All	1,834	77.98	433	18.41	85	3.61	2,352	100.00
G4	366	81.15	78	17.30	7	1.55	451	100.00
G3	387	71.14	136	25.00	21	3.86	544	100.00
G2	550	80.41	119	17.40	15	2.19	684	100.00
G1	531	78.90	100	14.86	42	6.24	673	100.00

In general, not many distinctive differences were found for the judgments of the four groups on the levels of the e-books. In the G1, G2, and G4 groups, around 80% of the responses revealed that the level of the e-books was suitable (78.90%, 80.41%, and 81.15% respectively), while in the G3 group, the percentage was 71.14%, a bit lower than for the other groups. Moreover, a quarter (25%) of the responses in the G3 group indicated that the e-books were too easy, whereas in the other groups, the percentages were lower than 18% (G1: 14.86%; G2: 17.40%;

G4:17.30%). However, it was the G1 group, who read relatively fewer e-books, which showed a higher percentage (6.24%) of responses that considered the e-books too difficult, while the other groups had a lower percentage (G2:2.19%; G3: 3.86%; G4: 1.55).

Degree of Fondness

The ranking of e-books in the self-report form refers to the degree to which the participants are fond of the e-books they read, ranging from 1 (I do not like it at all) to 5 (I like it very much). The results of the ranking of e-books are shown in Table 8.

Table 8. Ranking of E-Books in Terms of Fondness

Ranking Groups	1		2		3		4		5		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
All	100	4.25	365	15.52	507	21.56	1,168	49.66	212	9.01	2,352	100.00
G4	9	2.00	49	10.86	54	11.97	305	67.63	34	7.54	451	100.00
G3	36	6.62	107	19.67	132	24.26	218	40.07	51	9.38	544	100.00
G2	24	3.51	91	13.30	172	25.15	343	50.15	54	7.89	684	100.00
G1	31	4.61	118	17.53	149	22.14	302	44.87	73	10.85	673	100.00

In general, 58.67% (N=1,380) of the responses reported a fondness for e-books, indicating that the participants either liked an e-book or liked it very much, while 19.77% (N=465) of the responses were negative; and, more than one fifth (21.56%, N=507) of the responses were neutral, with neither a like nor dislike of e-books. There seems to be a pattern of degree of fondness in the four groups, except for the G3 group (fondness: 49.45%; dislike: 26.29%). In the G1, G2, G4 groups, the more e-books that were read, the higher the ranking of the e-books were. For instance, the G4 group, representing those who read more than 40 e-books, showed 75.17% for fondness (rankings 4 and 5) and 12.86% for dislike (rankings 1 and 2); the G2 group, reading between 20 to 29 e-books, had 58.04% (rankings 4 and 5) for fondness and 16.81% for dislike (rankings 1 and 2); the G1 group, reading between 10 to 19 e-books, reported 55.72% for fondness (rankings 4 and 5) and 22.14% for dislike (rankings 1 and 2).

The average ranking score of the e-books was 3.45 (S.D.=1.00), slightly towards the positive end. However, each score only represented a participant's attitude towards a specific book, not for all of the e-books in general, so the degree of fondness is only for reference and triangulation. More details of the participants' general feelings towards e-books were revealed in the field notes and reaction questionnaire.

Field Notes and Reaction Questionnaire

According to the data collected in the field notes, the participants' favorite e-books were those with interesting and impressive content or well-designed features, such as interactive games, memorable songs, vivid animations, and an oral reading function. The participants also enjoyed e-books with clear themes and target sentence patterns which they could easily learn from reading in English. When it comes to choosing an e-book, some of them preferred stories, fairy tales or fables, others would consider the difficulty first, and still others would choose those with titles which were attractive to them. Generally speaking, the participants thought their English reading ability was enhanced by participation in the e-book reading program. Moreover, they felt excited and motivated to participate in this reading activity. When they read, they laughed at funny animations, shared opinions with their peers, and seemed immersed in the e-books for they would recite the text occasionally.

The results of the reaction questionnaire echoed those found in the self-report forms and field notes. Some of the participants recognized the exclusive advantages of the e-books, such as oral reading, animations and highlighting, which are not available in printed books but helped them learn and comprehend the e-book texts. They claimed a willingness to read English e-books as a pastime. The content and features of e-books were equally important and decisive reasons of choosing e-books to read. More specifically, animations (18.54%), genres (16.29%), difficulty (14.04%) and oral reading (11.24%) in total accounted for 60.11% of the reasons, while titles (8.43%), pictures (7.87%), music/sound effects (6.74%) and highlighting (4.49%) together accounted for 27.53%. They commented that e-books with a certain degree of difficulty were more challenging, and e-books with the features mentioned above made reading English more interesting and helped them understand the e-books more easily and to learn to guess the

meaning of unknown words from the context.

DISCUSSION

With a main focus on e-book features favored by adolescent English learners, the participants' judgment on and thoughts about the features of e-books during and at the end of the experiment are discussed in three aspects: what features should be incorporated into e-books, how the various judgments on the features of e-books had been developed, and why the judgments on the features of e-books were varied.

What E-Book Features Should Be Included

Based on the results of the three instruments, the self-report form, the field notes and the reaction questionnaire, the features of e-books did play a decisive role in determining the participants' liking of an English e-book. These features, animations, oral reading, pictures, highlighting, music/sound effects and printing are discussed one by one in the following paragraphs.

The provision of animations distinguishes e-books from printed or talking books. Not only were children and young learners attracted to animations, but our adolescent participants were highly interested and motivated when reading e-books with animations. In the reaction questionnaire, for instance, the participants valued animations most because e-books become alive, vivid, interesting, funny, and comprehensible. The results echo with Okolo and Hayes's (1996) finding that participants liked texts with high animation condition the most. The author, based on the observations in the field notes and in the data in the reaction questionnaire as well as semi-structured interview, suggests that animations have a magical power to bring readers into e-books, urging them to identify themselves with the characters in the stories or to imagine the settings which the text describes. Moreover, some participants indicated that animations which demonstrate the meaning of certain verbs or plots of stories were especially beneficial to facilitate their guessing of unknown words as well as understanding of the content.

In addition to animations, most of the participants agreed that oral reading with good pronunciation not only benefited them in enhancing their oral comprehension of English, but also served as an ideal model

airiti

Yi-jung Lin & Chih-cheng Lin

for imitation in oral practice. Also, some participants pointed out that oral reading created an atmosphere that facilitated their understanding of the stories. These effects were similar to those on children as in teacher-guided reading (Doty et al., 2001) and printed books read aloud by adults (De Jong & Bus, 2004; Korat & Shamir, 2007). With regard to the ways used in oral reading, some participants preferred automatic oral reading for convenience, others desired to click on single words to listen to individual pronunciation, and still others emphasized the use of the control with the pause button. E-books without oral readings were usually ranked low with negative comments like “boring,” “not good without oral reading” or “more difficult to comprehend the text.”

While pictures received the highest percentages in popularity and helpfulness, the participants emphasized that pictures of a good quality with colorful, vivid and well-designed illustrations helped create an enjoyable reading experience and facilitate reading comprehension. For many of the participants, pictures alone, especially those of a lower quality, could neither trigger much interest in reading nor assist a full understanding of the text.

There were also features that received opposite comments among the participants. For instance, while some of them found that highlighting made them alert to the words being pronounced, emphasized the unknown words for them and helped them keep up with the reading pace, others paid little attention to it. For those who favored the highlighting feature, it would be ideal if highlighting could co-occur with, rather than be embedded in, oral reading.

Music/sound effects might seem a minor feature, but, in this present study, the researcher found that songs with repetitive patterns or rhythmic tempos greatly impressed the participants and left them an unforgettable, exciting reading experience. According to the reaction questionnaire, the two most popular e-books were both presented in song. Further, special sound effects were also found to have a positive effect on the participants' attitudes toward e-books. The least helpful feature of e-books for the participants was the printing function. As predicted, they found it unnecessary to print out the e-books to read or to learn because they were accustomed to reading on computers. In the reaction questionnaire, only one participant mentioned that he thought the function of printing was important to him when he had some questions to ask his classmates. Printing, therefore, was not a crucial feature of e-books and could be excluded from the list of the features without much

loss.

How Different Judgments on E-Book Features Were Developed

During the 10-week experiment, it was observed that some of the participants' judgments on e-book features had developed from the stage of entirely and excitedly accepting all of them, to that of gradually shaping their own principles for judging the features, and finally to that of clearly indicating their suggestions for improving these features to make e-books more enjoyable, readable and effective. In the first few weeks, almost all of the participants ranked e-books high without any negative responses in the self-report forms, but later on, some of them took a position of indicate liking or disliking by ranking the e-book at either 4 or at 2 each time after reading. After their critical thinking had been shaped, the same feature might be judged oppositely in the case of different e-books--"popular," "unpopular," "helpful" or "unhelpful"--because of the way it was presented in a certain e-book. This change may be explained by the increasing amount of reading; the more the participants read, the better they know what they need in e-books.

In order to investigate whether there was any connection between the features of the e-books and what the participants learned, those with certain reading preferences or distinct reading attitudes towards certain features were further interviewed. Most of them mentioned that they liked oral reading and thought it helpful in learning vocabulary and pronunciation. Also, those who favored highlighting believed that it facilitated their learning of unknown words or phrases as well as reading and speaking skills, especially with regard to speed. When it comes to pictures, most of the participants disliked e-books with pictures only, but pictures worked well when accompanied with other features. However, for those who accepted e-books with pictures only, they reported that it was easier to appreciate the content and to focus on their learning of vocabulary, idioms, sentence patterns and grammar. The possible connection of e-books with pictures only and the learning of grammar might be due to the fact that grammar is something that the participants could learn only when they read silently, patiently and attentively; too many multimedia elements might be a distraction to the learning of grammar (De Jong & Bus, 2004; Lefever-Davis & Pearman, 2005; Trushell et al., 2001; Underwood & Underwood, 1998).

Why the Judgments on the E-Books Features Varied

One of the judgment patterns found was between preferable features and English proficiency levels. There was a tendency that those of a relatively higher proficiency preferred content-related features, such as oral reading and highlighting, while those of a lower proficiency favored multimedia-related features like animations, pictures and music/sound effects. Moreover, higher-proficient participants emphasized content more than features, while lower-proficient participants depended on the features very much, especially pictures, animations, oral reading and highlighting, to help them comprehend the content or to enhance their interest in reading in English.

While it is believed that multimedia features of e-books are beneficial in some studies (Maynard & McKnight, 2001; Korat & Shamir, 2007), how these features are presented is the key to the popularity and effectiveness of e-books. When these features were presented interestingly and helpfully, the participants loved the e-books; otherwise, they ranked the e-books low and thought the features redundant and unhelpful. Two suggestions, therefore, were proposed by the participants with regard to more control over these features to meet their different needs. Firstly, they preferred an oral reading function which includes both single word pronunciation when desired and whole text reading. Second, they wished for more interaction with e-books regardless of the forms, since games, exercises or activities embedded in the e-books all made their reading more interesting, memorable and beneficial.

In summary, the success of e-books is not a matter so much about “what” the features are but “how” the features are presented. Even e-books with pictures only can be attractive as long as their content is good, with a suitable length and difficulty. As for e-books with different features, they should be designed to provide the readers more access to interactivity and controllability.

CONCLUSION

This study investigated the features of e-books that adolescent English learners in Taiwan favored. It was found that most of the e-book features, such as oral reading, highlighting, animations, pictures and music/sound effects, were popular and were helpful to the participants. The key, nevertheless, lies not in what features are incorporated into

e-books but how these features are presented. The principles to be followed in the features of e-books are interactivity and controllability. For instance, oral reading along with highlighting should be presented at an appropriate speed and allow readers to control over what is to be read out so that they can learn pronunciation as well as intonation, and train their reading, listening and speaking skills simultaneously. Animations and pictures should provide enough clues to help the reader guess the meaning of unknown words, while pictures alone may be used in content-oriented e-books to help readers focus on the learning of grammar without distraction from other multimedia features. Music/sound effects should be presented in a rhythmic, repetitive way so that readers feel that the target words, phrases, or sentence patterns memorable and impressive. As for the marginal feature, printing, it can be excluded from the list of the features of e-books since many of the participants found it unpopular and unhelpful.

Reflecting upon the current findings, the researcher proposes two pedagogical implications. First, it is suggested that e-books be incorporated in an ERP. Every week the teacher can spend one class period reading e-books with students in the computer classroom, have a short discussion in class, and encourage them to read e-books after school. Their interest and confidence in reading in English will be gradually regained. Second, teachers should prepare a wide range of suitable e-books with features such as highlighting, oral reading, animations, music/sound effects and pictures, all of which were found to attract and benefit learners.

A more comprehensive understanding of the application of e-books in ERPs requires further research. First, it is strongly suggested that a longer span of experiment, at least one year, should be conducted to examine the long-term effects of the use of e-books on developing students' reading interest and habits in English. A reduplicate experiment recruiting eighth graders who may have more flexible time for outside reading and less stress from entrance exams is suggested. Second, in the current study we found some features that EFL students favored, but the features of e-books that can facilitate the learning of certain aspects of languages is an issue requiring further investigation. This will help establish essential principles for English instructors to effectively use e-books in language teaching and for learners to choose e-books that facilitate and enhance their learning in different aspects of language use.

REFERENCES

- Adam, N., & Wild, M. (1997). Applying CD-ROM interactive storybooks to learning to read. *Journal of Computer Assisted Learning*, 13, 119-132.
- Alexander, J. E. (1991). Ten best ideas for reading teachers. In E. Fry (Ed.), *Ten best ideas for reading teachers*, 30. Menlo Park, Calif.: Addison-Wesley.
- Anderson-Inman, L., & Horney, M. A. (1999). *Electronic books: reading and studying with supportive resources*. Retrieved from http://www.readingonline.org/electronic/elec_index.asp?HREF=/electronic/ebook/index.html.
- Arnold, A. P. (2009). The organizational-activational hypothesis as the foundation for a unified theory of sexual differentiation of all mammalian tissues. *Journal of Hormones and Behavior*, 55, 570-578.
- Asraf, R. M., & Ahmad, I. S. (2003). Promoting English language development and the reading habit among students in rural schools through the Guided Extensive Reading. *Reading in a Foreign Language*, 15, 83-102.
- Bax, S. (2003). CALL-past, present and future. *System*, 31, 13-28.
- Boone, R., & Higgins, K. (2003). Reading, writing, and publishing digital text. *Remedial and Special Education*, 24, 132-140.
- Chen, Y. S., Kao, T. C., & Sheu, J. P. (2003). A mobile learning system for scaffolding bird watching learning. *Journal of Computer Assisted Learning*, 19, 347-359.
- Chera, P., & Wood, C. (2003). Animated multimedia "talking books" can promote phonological awareness in children beginning to read. *Learning and Instruction*, 13, 33-52.
- Chu, M. L. (1995). Reader response to interactive computer books: Examining literary responses in a non-traditional reading setting. *Reading Research and Instruction*, 34, 352-366.
- Davis, C. (1995). Extensive reading: An expensive extravagance? *ELT Journal*, 49, 329-336.
- Day, R., & Bamford, J. (1998). *Extensive reading in the second language classroom*. Cambridge: Cambridge University Press.
- Day, R., & Bamford, J. (2002). Top ten principles for teaching extensive reading. *Reading in a Foreign Language*, 14, 136-141.
- De Jong, M. T., & Bus, A. G. (2004). The efficacy of electronic books in fostering kindergarten children's emergent story understanding. *Reading Research Quarterly*, 39, 378-393.
- Desrosiers, R. (1996). Electronic books as teaching supplements. *Frontiers in Education Conference, IEEE*, 3, 1419-1421.
- Doty, D. E., Popplewell, S. R., & Byers, G. O. (2001). Interactive CD-ROM storybooks and young readers' reading comprehension. *Journal of Research on Computing in Education*, 33, 374-384.
- Fry, E. (1991). *Ten best ideas for reading teachers*. Menlo Park, Calif.: Addison-Wesley.

- Gambrell, L. B. (1996). Creating classroom cultures that foster reading motivation. *The Reading Teacher*, 50(1), 14-25.
- Grabe, W. (2009). *Reading in a second language: Moving from theory to practice*. New York: Cambridge University Press.
- Green, C. (2005). Integrating extensive reading in the task-based curriculum. *English Language Teaching Journal*, 59(4), 306-311.
- Grimshaw, N., Dungworth, S., McKnight, C., & Morris, A. (2007). Electronic books: Children's reading and comprehension. *British Journal of Educational Technology*, 38, 583-599.
- Hafiz, F., & Tudor, I. (1989). Extensive reading and the development of language skills. *English Language Teaching Journal*, 43(1), 4-13.
- Hafiz, F., & Tudor, I. (1990). Graded readers as an input medium in L2 learning. *System*, 18(1), 31-42.
- Hitosugi, C. I., & Day, R. R. (2004). Extensive reading in Japanese. *Reading in a Foreign Language*, 16(1), 20-39. Retrieved from <http://nflrc.hawaii.edu/rfl/April2004/hitosugi/hitosugi.html>
- Huang, H. (2013). E-reading and e-discussion: EFL learners' perceptions of an e-book reading program. *Computer Assisted Language Learning*, 26, 258-281.
- Ivey, G., & Broaddus, K. (2001). "Just plain reading": A survey of what makes students want to read in middle school classrooms. *Reading Research Quarterly*, 36, 350-377.
- Iwahori, Y. (2008). Developing reading fluency: A study of extensive reading in EFL. *Journal of Reading in a Foreign Language*, 20(1), 70-91.
- Jenks, D., & Brinham, A. D. (2012). The effects of text selection on student attitudes toward extensive reading. *The Journal of Kanda University of International Studies*, 24, 181-202.
- Kim, D., & Hall, J. K. (2002). The role of an interactive book reading program in the development of second language pragmatic competence. *The Modern Language Journal*, 86, 332-348.
- Korat, O. (2010). Reading electronic books as a support for vocabulary, story comprehension and word reading in kindergarten and first grade. *Journal of Computers & Education*, 55(1), 24-31.
- Korat, O., & Shamir, A. (2007). Electronic books versus adult readers: Effects on children's emergent literacy as a function of social class. *Journal of Computer Assisted Learning*, 23, 248-259.
- Korat, O., & Shamir, A. (2008). The educational electronic book as a tool for supporting children's emergent literacy in low versus middle SES groups. *Journal of Computers & Education*, 50(1), 110-124.
- Krashen, S. D. (1982). *Principles and practice in second language acquisition*. Oxford: Pergamon.
- Krashen, S. D. (1985). *The input hypothesis: Issues and implications*. London: Longman.
- Krashen, S. D. (1988). Do we learn to read by reading? The relationship between free reading and reading ability. In D. Tannen (Ed.), *Linguistics in Context: Connecting Observation and Understanding* (pp. 269-298). Norwood, NJ: Ablex.

- Krashen S. D. (1989). We acquire vocabulary and spelling by reading: Additional evidence for the input hypothesis. *Modern Language Journal*, 73, 440-464.
- Krashen S. D. (1993). *The power of reading*. Englewood, Colorado: Libraries Unlimited.
- Labbo, L. D. (2000). 12 things young children can do with a talking book in a classroom computer center. *The Reading Teacher*, 53, 542-546.
- The Language Training and Testing Center. (2012). The Language Training and Testing Center. Retrieved from https://www.gept.org.tw/Exam_Intro/t01_introduction.asp
- Lee, S. K. (2007). Effects of textual enhancement and topic familiarity on Korean EFL students' reading comprehension and learning of passive form. *Language Learning*, 57(1), 87-118.
- Lefever-Davis, S., & Pearman, C. (2005). Early readers and electronic texts: CD-ROM storybook features that influence reading behaviors. *The Reading Teacher*, 58, 446-454.
- Lewin, C. (2000). Exploring the effects of talking book software in UK primary classrooms. *Journal of Research in Reading*, 23, 149-157.
- Macalister, J. (2007). Implementing extensive reading in an EAP programme. *English Language Teaching Journal*, 62(3), 248-256.
- Matthew K. I. (1996). The impact of CD-ROM storybooks on children's reading comprehension and reading attitude. *Journal of Educational Multimedia and Hypermedia*, 5, 379-394.
- Maynard, S., & Cheyne, E. (2005). Can electronic textbooks help children to learn? *Journal of Electronic Library*, 23(1), 103-115.
- Maynard, S., & McKnight, C. (2001). Children's comprehension of electronic books: An empirical study. *The New Review of Children's Literature and Librarianship*, 7(1), 29-53.
- McKenna, M. C., & Kear, D. J. (1990). Measuring attitude toward reading: A new tool for teachers. *The Reading Teacher*, 43, 626-639.
- Ministry of Education. (2012). Ministry of Education. Retrieved from http://www.edu.tw/eje/content.aspx?site_content_sn=15326
- Modirkhamene, S., & Gowrki, F. (2011). Extensive reading in relation to lexical knowledge & reading fluency: Evidence from Iranian EFL learners. *Modern Journal of Language Teaching Methods*, 1(3), 5-23.
- Moody, A. (2010). The Englishes of popular cultures. In A. Kirkpatrick (Ed.), *The Routledge handbook of world Englishes* (pp. 535-549). London: Routledge.
- Okolo, C., & Hayes, R. (1996, April). *The impact of animation in CD-ROM books on students' reading behaviors and comprehension*. Paper presented at the Annual International Convention of the Council for Exceptional Children, Orlando, FL.
- Rosenblatt, L. M. (1994). *The reader, the text, the poem: The transactional theory of the literary work*. Carbondale: Southern Illinois University Press.
- Segal-Drori, O., Korat, O., Shamir, A., & Klein, P. S. (2010). Reading electronic and printed books with and without adult instruction: Effects on emergent reading. *Journal of Reading and Writing*, 23, 913-930.
- Segers, E., & Verhoeven, L. (2002). Multimedia support of early literacy learning.

- Computers and Education*, 39, 207-221.
- Shamir, A., & Korat, O. (2006). How to select CD-ROM storybooks for young children: The teacher's role. *Journal of The Reading Teacher*, 59, 532-543.
- Shamir, A., Korat, O., & Barbi, N. (2008). The effects of CD-ROM storybook reading on low SES kindergarteners' emergent literacy as a function of learning context. *Journal of Computers & Education*, 5(1), 354-367.
- Smith, C. R. (2001). Click and turn the page: An exploration of multiple storybook literacy. *Reading Research Quarterly*, 36, 152-183.
- Sun, Y. C. (2003). Extensive reading online: an overview and evaluation. *Journal of Computer Assisted Learning*, 19, 438-446.
- Trushell, J., Burrell, C., & Maitland, A. (2001). Year 5 pupils reading an "Interactive Storybook" on CD-ROM: Losing the plot? *British Journal of Educational Technology*, 32, 389-401.
- Trushell, J., Maitland, A., & Burrell, C. (2003). Pupils' recall of an interactive storybook on CD-ROM. *Journal of Computer Assisted Learning*, 19(1), 80-89.
- Underwood, G., & Underwood, J. D. M. (1998). Children's interactions and learning outcomes with interactive talking books. *Computers Education*, 30(1/2), 95-102.
- Worthy, J. (2002). What makes intermediate-grade students want to read? *The Reading Teacher*, 55, 568-569.
- Yamashita, J. (2004). Reading attitudes in L1 and L2, and their influence on L2 extensive reading. *Reading in a Foreign Language*, 16(1), 1-19.
- Yamashita, J. (2008). Extensive reading and development of different aspects of L2 proficiency. *System*, 36, 661-672. doi: 10.1016/j.system.2008.04.003
- Zucker, T. A., Moody, A. K., & McKenna, M. C. (2009). The effects of electronic books on pre-kindergarten-to-grade 5 students' literacy and language outcomes: A research synthesis. *Journal of Educational Computing Research*, 40(1), 47-87.

CORRESPONDENCE

Yi-jung Lin, Department of English, National Taiwan Normal University, Taiwan
E-mail address: a354166.irene@msa.hinet.net

Chih-cheng Lin, Department of English, National Taiwan Normal University, Taiwan
E-mail address: cclin@ntnu.edu.tw

airiti

Yi-jung Lin & Chih-cheng Lin

APPENDIX

Appendix A. E-Book Websites

Websites	URL's
1 Award winning children's story books	www.mightybook.com/story_books.html
2 BBC	www.bbc.co.uk/cbeebies/razzledazzle/onceuponatale/ www.bbc.co.uk/cbeebies/fimbles/comfycorner/index.shtml www.bbc.co.uk/cbeebies/tikkabilla/stories/index.shtml www.bbc.co.uk/schools/laac/story/sbi.shtml www.bbc.co.uk/cbeebies/storymakers/stories/index.shtml
3 Stories	www.kizclub.com/Sbody.html
4 Andersen Fairy Tales	www.andersenfairytale.com/en/stories
5 Clifford Interactive Storybooks	teacher.scholastic.com/clifford1/index.htm
6 Grimm Fairy Tales	www.grimmfairytales.com/en/stories
7 I'm Reading!	www.starfall.com/n/level-c/index/load.htm?f
8 Storytime	www.peterrabbit.co.uk/funandgames/funandgames6.cfm?territory=1&country=1
9 PrimaryGames Bookshelf	www.primarygames.com/storybooks/bookshelf.htm

Appendix B. Self-Report Form

1. General background			
Class: _____ No.: _____ Name: _____ Date & Time: 2008/____/____ :____ ~ ____:____ & ____/____ :____ ~ ____:____			
Name & number of the e-books: _____			
2. Content of the e-book			
2-1. Do you like this genre? Why? (The genre is _____.)	<input type="checkbox"/> Yes. Because _____ <input type="checkbox"/> No. Because _____		
2-2. Do you think its length is suitable? (_____ pages)	<input type="checkbox"/> Yes. <input type="checkbox"/> No, it's too long. <input type="checkbox"/> No, it's too short.		
2-3. Do you like its content? Why?	<input type="checkbox"/> Yes. Because _____ <input type="checkbox"/> No. Because _____		
3. Features of the e-book			
3-1. Which features does this e-book have?	<input type="checkbox"/> oral reading <input type="checkbox"/> highlighting <input type="checkbox"/> animations	<input type="checkbox"/> pictures <input type="checkbox"/> music/sound effects	<input type="checkbox"/> printing <input type="checkbox"/> _____ <input type="checkbox"/> _____
3-2. Which features do you like?	<input type="checkbox"/> oral reading <input type="checkbox"/> highlighting <input type="checkbox"/> animations	<input type="checkbox"/> pictures <input type="checkbox"/> music/sound effects	<input type="checkbox"/> printing <input type="checkbox"/> none <input type="checkbox"/> _____
3-3. Which features do you not like?	<input type="checkbox"/> oral reading <input type="checkbox"/> highlighting <input type="checkbox"/> animations	<input type="checkbox"/> pictures <input type="checkbox"/> music/sound effects	<input type="checkbox"/> printing <input type="checkbox"/> none <input type="checkbox"/> _____
3-4. Which features helped you read?	<input type="checkbox"/> oral reading <input type="checkbox"/> highlighting <input type="checkbox"/> animations	<input type="checkbox"/> pictures <input type="checkbox"/> music/sound effects	<input type="checkbox"/> printing <input type="checkbox"/> none <input type="checkbox"/> _____
3-5. Which features didn't help you read?	<input type="checkbox"/> oral reading <input type="checkbox"/> highlighting <input type="checkbox"/> animations	<input type="checkbox"/> pictures <input type="checkbox"/> music/sound effects	<input type="checkbox"/> printing <input type="checkbox"/> none <input type="checkbox"/> _____

Appendix B. Self-Report Form (continued)

3-6. What did you do in addition to reading?	<input type="checkbox"/> click the hotspots of the animations <input type="checkbox"/> print out the text of the e-book <input type="checkbox"/> repeat after the oral reading <input type="checkbox"/> nothing else
4. Do you think its level is suitable for you?	<input type="checkbox"/> Yes. <input type="checkbox"/> No, it's too hard. <input type="checkbox"/> No, it's too easy.
5. Rank the e-book to demonstrate how you like it. (1: I don't like it at all. 5: I like it very much.)	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
6. After reading it, what did you learn in terms of English?	<hr/> <hr/>
7. After reading it, what was your opinion about reading in English?	<hr/> <hr/>
Notes: 1. Be sure to fill out this form every time you finish reading an e-book. 2. You may finish one e-book in different time periods. Just remember to record the time.	

Appendix C. Reaction Questionnaire

1. In general, do you like the e-books in this program? Why or why not?

2. Which e-book do you like most? Why?

3. What was the crucial factor when you decided on which e-book to read? Why?

4. In general, do you think the e-books reinforce your attitude towards reading in English? Why?

5. Will you continue reading English e-books in the future? Why or why not?

6. Will you recommend this e-book ERP to your younger schoolmates? Why or why not?

7. Do you have any opinions or suggestions about this e-book extensive reading program?

台灣國中生喜愛的電子書功能

林宜蓉、林至誠
國立台灣師範大學

本研究旨在調查台灣國中生，對網路電子書所提供的功能的喜好。本研究針對在北台灣一所國中的 109 為九年級的學生，進行為期十周的廣泛閱讀訓練並提供 140 本網路電子書給學生選擇。實驗進行期間，每周由教師於每周一上午共同閱讀一本電子書，且於閱讀後帶領全班討論；隨後，教師鼓勵學生於課後自行閱讀其他書籍。學生於閱讀每本電子書後，需要填寫讀後感想；在整個閱讀課程結束後，則填寫事後問卷以表達閱讀課程的反應。任課教師也同時運用自己的教室觀察筆記，包括：閱讀行為、反應、即時回饋，以做三角校正。研究結果顯示：參與研究的學生對以下五項功能有好感也認為對英語學習有幫助，即電子書會唸出文章內容、電子書對念出的文字會有發亮、每頁的圖片、動畫、音樂或音效。另外，學生也為電子書互動及控制的功能吸引。本研究的結論是，具有學生喜愛功能的電子書比較能夠增進閱讀興趣且能提高他們的動機；另外，網路電子書閱讀計畫能幫助國中生的英語閱讀能力。

關鍵詞：電腦輔助閱讀、電子書、廣泛閱讀計畫、電子書功能