

e-Picture-Book Creating (e-PBC) in the Children's Literature Classroom

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Abstract

In a class on Children's Literature, an e-Picture-Book Creating (e-PBC) assignment was given to Taiwanese weekend-program undergraduates for the purpose of their learning about picture books, using the software InAlbum, and stimulating critical thinking ability. At the center of this study are the students' responses to the assignment. Three research questions developed to guide the study are: (1) How did the weekend-program undergraduates respond to the e-PBC from the perspective of picture book acquisition?, (2) How did the weekend-program undergraduates respond to the e-PBC from the perspective of critical thinking?, and (3) How did the weekend-program undergraduates respond to the e-PBC from the perspective of multimedia literacy? The collected data included the students' responses to a 6-point-scaled course evaluation questionnaire, e-picture-books and final exam papers. The results of the study revealed that the weekend-program undergraduates tended to strongly agree with the effectiveness of the e-PBC in helping them to learn about children's picture books (M=5.20), to boost critical thinking ability (M=5.38), and to increase multimedia/computer literacy (M=5.00). Therefore, it is hoped that any interested teachers might consider such an assignment in their own teaching settings to increase their students' picture-book comprehension, critical thinking ability, software literacy, and even social concern awareness. Interested researchers might replicate this study or conduct additional research regarding the impact of the e-PBC in other areas. In this paper, selected pictures of the students' e-picture-books are displayed for the purposes of sharing and evidence.

Key words: e-Picture-Book Creating (e-PBC), course assignment, critical thinking, picture book, InAlbum.

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I. Introduction

As well as encouraging his students to get involved in the field of children's picture books, the instructor hoped to bridge the accessibility of children's picture book learning and critical thinking with the integration of e-Picture-Book Creating (e-PBC) in an elective course in Children's Literature. It was the instructor's hope that student engagement with the children's picture books would become the centerpiece of his Children's Literature course, and that this engagement would occur across disciplines through literature discussion and teaching activities, including picture-book acquisition, InAlbum use (see Methodology), critical thinking, and much more. In short, the students were encouraged to be creators as well as receivers.

Moreover, there were three other reasons why the instructor was keen to integrate the e-Picture-Book assignment and the Invitation Activity into his course. Firstly, he deeply appreciated paper and digital picture books. Secondly, he was impressed on Buttleman Malcolm's concept on "trusting the kids as part of open forum and the learning lab structure" (cited in Aronson, 2006, p. 8), which bolstered his own belief in students' potential for creativity and imagination. Thirdly, he believed in the importance of teaching in students' social or cultural awareness, and the necessity of providing critical-thinking perspectives which could help his students increase their appreciation and understanding of picture books and e-picture books.

The previous studies have focused on the responses to Picture-Book Creating (PBC), English Picture-Book Creating (EPBC), and e-Picture-Book Creating (e-PBC) from the students at day- and night-programs in Taiwan. However, there is paucity of studies on the perceptions of e-PBC from the weekend-program students. In this study, the focus is

mainly on the weekend-program students' perceptions of the e-PBC assignment, especially their learning and creating processes. Three research questions are posed here to elucidate the core of the study below: (1) How did the weekend-program undergraduates respond to the e-PBC from the perspective of picture book acquisition?, (2) How did the weekend-program undergraduates respond to the e-PBC from the perspective of critical thinking?, and (3) How did the weekend-program undergraduates respond to the e-PBC from the perspective of multimedia literacy?

II. Literature Review

1. Previous Studies

Following discussions are on two previous studies which indicated the positive correlations between Picture-Book Creating (PBC) or English Picture-Book Creating (EPBC) and picture books learning, and that between PBC or EPBC and critical thinking ability boosting:

- (1) Wang (2008) investigated forty-four night-program AFL majors' perceptions of the assignment, PBC. Data collection included a five-point questionnaire, the instructor's journal entries, the students' picture books, the students' reflection papers, and the class blog postings (<http://e3.nfu.edu.tw/ecampus3/learn/>). The results of the study showed that the PBC helped them learn about picture books ($M=4.27$) and develop their critical thinking ability ($M=4.57$)
- (2) Wang, Chiu, and Wu (2010) explored how fifty-two day-program college students' related two assignments, EPBC and English Puppet Show DVD Creating (EPSDC), to learning about picture books and critical thinking boost. The sources of data collection included a 6-point-scaled questionnaire, the instructor's



journal entries, the students' reflection papers, the class blog postings (<http://e3.nfu.edu.tw/ecampus3/learn/>), the students' picture books and their English puppet show DVDs. The results of the study showed that the student participants tended to agree with the effectiveness of the two assignments on helping them learn about picture books and increasing critical thinking ability from the EPBC ($M=4.92$ and 5.14 respectively) and from the EPSDC ($M= 4.84$ and 5.14 respectively).

Moreover, following discussion is one previous study which indicated one e-work assignment could help learners to increase their critical thinking ability and technology literacy. Wang, Ting, Lin, Yen, and Su (2013) looked into sixty-one Taiwanese college students' responses to a place-based-learning (PBL)-oriented e-Work Creating activity. Data sources included a questionnaire that included a space for free comments, the students' e-works, the students' reflection papers, class observations, and follow-up e-mail interviews. The results of the study indicated the e-work could help the students develop their critical thinking ability, learn to use technology (e.g., "InAlbum, PowerDirector, camera, and video recorder" (p. 60)), and learn about the place (i.e. Yunlin County), among others.

2. Critical Thinking

The critical thinking process requires students to examine their own and other people's values and/or opinions carefully and to express their thoughts, feelings, ideas, and concerns to others clearly (Royster, 1996). In order to help students gain such skills, educators need to encourage their students to learn how to view problems and raise questions logically before reaching conclusions, implement the rules of logic in their classes, guide their students to understand the concepts about human values correctly,

and lead their students to apply social justice in the real world.

Harris and Hodges (1995) point out that critical thinking is a logical thinking process about "the characteristic of creativity and criticism in literature and other arts" (p. 50). Facione and Facione (1994) define critical thinking as a process in which learners actively evaluate and analyze information in concepts, synthesize and apply concepts, and conclude the final options. Chance (1986) views critical learners as those who need to gain skills about how to analyze facts, how to generate and organize ideas, how to defend and compare opinions, how to draw inferences and evaluate arguments, and finally how to achieve the best practice solution. Critical-literacy perspectives (Boyd & Howe, 2006) empower students to become aware of the basic elements of social justice, and eventually offer students an opportunity to their and other people's positions within society. Wang, Wang, Wu and Kuo (2005/2006) specify critical thinking as a process in which students learn how to use their previous knowledge and experience to originate their works by brainstorming new ideas, respecting different opinions, negotiating with opponents, communicating and cooperating with team-members. In his study on educational bibliotherapy, Wang (2006) also refers to critical thinking as "an ability to respond considerately to diverse points of view, understand beyond the surface text, learn the way to position human beings including themselves, input their minds with the meaning of mutual help and possibly carry out the spirit of social justice in the way of empathy" (p. 18).

From the researchers' points of view, there are three major elements to critical thinking: empathy, creativity, and imagination. In the "Conceptualizing Critical Reading and Thinking" paper by Pugh (Wang,



2004), she particularizes empathy as the ability to vicariously experience other people’s cognition, emotion, and action. Oxman-Michelli (1991) defines creativity in rules of critical thinking as the involvement of the continuous interplay among the production, connection, appraisal, alternation, and integration of ideas. Sharman, Garry, and Beuke (2004) specify imagination as the ability to generate more perceptual detail after comprehending the learning and reading materials.

By looking into various definitions about critical thinking, Fowler (2009) argues that the best definition of critical thinking should be made by the person who needs to utilize critical thinking concept as a process to solve problems in a particular situation. Using the review of literature as a theoretical basis for this research project, the researchers defined critical thinking as a learning process for those students to complete their tasks through engagement with their previous and current knowledge and experience, respecting different opinions, brainstorming new ideas, negotiating with

opponents, communicating and cooperating with team-members in an empathetic, imaginative and creative way, and further stimulating social concern awareness.

III. Methodology

1. Participants

For the sake of sampling convenience, the 2-year-program weekend-program undergraduates enrolled in the English Children’s Literature course were recruited to be the participants in the current study at a rural technical university in the mid-south of Taiwan in the fall semester of 2009 (see Table 1). These 41 participants (mixed genders) were all Applied Foreign Languages (AFL) majors. They were 39 sophomores (M: 9; F: 30), one female freshman, and one female junior. Their ages spanned from 22 to 56, and their average age was 37; all of them had full-time or part-time jobs. The participants had the right to refuse participation in this study at any time. The students’ English names used in this paper are all pseudonyms.

Table 1
Demographic data: major, year and gender

Major	Year	Male	Female	Total
	Freshman	0	1	1
Applied Foreign Languages (AFL)	Sophomore	9	30	39
	Junior*	0	1	1
Total		9	32	41

*It was the female student’s third year to take courses in the 2-year program.

2. Nature of the Class

The elective course in Children’s Literature was mainly offered to weekend-program AFL-major sophomores in the fall semester of 2009. The instructor incorporated the theory of critical thinking into the course in the hope that his students would

learn about picture books, boost critical thinking, and increase their computer literacy. The students took the weekly course from the instructor for two consecutive class sessions on Sunday mornings.

3. e-Picture-Book Creating (e-PBC)

The course assignment - e-Picture-Book Creating



(e-PBC) - was designed to help the students broaden their knowledge of picture books, increase their critical thinking ability, and promote their software literacy. Working in groups of four to six, the students in this course were required to create their e-picture-books for children, using mainly InAlbum 2.0 or 3.0 (<http://www.inalbum.com/updates.html>), and other software such as Flash. Using the computer's microphones, the students could record the texts of their picture books in their own ways. Before starting the task, the class read and discussed the required reading materials selected from the class textbook – *Literature for Children: A Short Introduction* by Russell (2009), various trade books, and sample picture books created by the instructor's previous students, which were provided for purposes of inspiration and imagination. Ultimately, eight e-books were created and posted on the University's e-Campus (<http://e3.nfu.edu.tw/ecampus3/learn/>) by Week 17 of the semester ready for appraisal and discussion in class.

4. InAlbum 2.0 or 3.0

The InAlbum-based picture books can be completed as long as the students follow its five steps: collecting photo, editing photo, changing template, decoding show, and selecting music and setting. The functions in the software also contain additional templates, clipart or facial fun (e.g., emotion signs), speech bubble, background music, voice recording, and settings. These functions can help to make the picture books intriguing and fascinating by adding audio and visual effects.

5. Invitation Activity

In two consecutive class sessions in Week 17 of the semester, the instructor showed the e-works all the teams had posted on the e-Campus class blog. All the students were encouraged to jot down their comments on or suggestions about any e-work; they

were welcomed to share their ideas during intervals.

6. e-Campus Class Blog

The e-Campus class blog (<http://e3.nfu.edu.tw/ecampus3/learn/>) was used by the instructor to post teaching materials and vital information such as the course syllabus and a team-work list; it was also a place for the students to post their assignments or homework, and their reflections or comments on the postings from peers and the instructor. The major postings for the research study included the students' e-picture-books and final exam papers.

IV. Data Collection

The collection of data spanned a fall semester. The validity of the study was ensured through data collection in an authentic classroom and the ongoing member-checking of the data with the instructor and the participating students if necessary. As well as the e-picture-books which the students created in the Children's Literature class and posted on the e-Campus class blog, data sources for analysis and discussion included the students' responses to a 6-point-scaled course evaluation questionnaire, and the students' final exam papers.

1. Evaluation Questionnaire

As well as the box for free comments or suggestions, the anonymous 6-point-scaled evaluation questionnaire was made up of 10 items and 6 sub-items in item 5. After showing and discussing each team's e-work, the instructor translated all the questionnaire items in Chinese, and thereby the students rated each statement item by item and then wrote down their ideas about the statements of certain items. This was followed by the completion of the consent forms in the 17th week of the fall semester in 2009. Among the scaled items,



only the responses to items 4-6 and 6 sub-items in item 5 are analyzed and discussed in this study. The responses to the other items are not reported in that they are not strongly related to the current research.

2. Students' Final Exam Paper

The students' final exam papers were interview-oriented reflection papers because the final exam questions were produced for the current study (see Appendix). In particular, the students were required to draw mind-maps to briefly present the major points of their answers. Forty-one final exam papers with mind-maps were collected in Week 18 and they were posted on the e-Campus class blog (<http://e3.nfu.edu.tw/ecampus3/learn/>).

3. Students' e-Picture-Books

The e-picture-books were the combination of words, art, and technology. Among the eight e-works (<http://e3.nfu.edu.tw/ecampus3/learn/>), one was created in the format of Flash and the others through the use of InAlbum. The themes elicited from these works include children's creativity and imagination from the flash picture book titled *Cloud, Color, and Car* (see Picture 1), health from *Run Away from H1N1* (see Picture 2), holidays from *Taiwan's Holidays* (see Picture 3), animals from *The Magic Circus* and *The Sea*, fairy princesses from *Disney Princesses*, and *The Chinese Lovers' Day*, and graduation travel dream from *The Graduation Travel Plan*.



Picture 1: Cloud, Color, and Car



Picture 2: Run Away from H1N1



Picture 3: Taiwan's Holidays

V. Results and Discussion

The data analysis and discussion correspond to the three research questions. Any quotes or excerpts in this section are from the students' free comments in the questionnaires and their final exam papers with mind-maps, with English versions or with English translations of their Chinese versions in braces “{ }.” Other findings are also shown.

1. How did the weekend-program undergraduates respond to the e-PBC from the perspective of picture book acquisition?

In Table 2, the results for item 4, “*e-Picture-Book*

Creating was helpful for me to learn about children’s picture books,” demonstrated that 39 (97.5%) out of the 40 responding students strongly agreed (37.5%), agreed (50.0%) or somewhat agreed (10.0%) that the e-PBC assignment helped them learn about children’s picture books, which is reflected in the mean value, 5.20, of item 4. Only one (2.5%) responding student disagreed with the effectiveness of the assignment from the perspective of learning about picture books; no responding student rated item 4 as “somewhat disagree” or “strongly disagree.” However, none of the current data explains the one negative response to item 4, and a follow-up interview concerning the negative response could not be done since the questionnaires were completed anonymously.

Table 2
Results for item 4: *e-Picture-Book Creating* was helpful for me to learn about children’s picture books.

Rating*	6	5	4	3	2	1	Total
Valid Responses	n=15	n=20	n=4	n=0	n=1	n=0	N=40**
Percent	37.5%	50.0%	10.0%	0.0%	2.5%	0.0%	(100%)
Total	90	100	16	0	2	0	208
Mean Value							5.20

*6: Strongly Agree; 5: Agree; 4: Somewhat Agree; 3: Somewhat Disagree; 2: Disagree; 1: Strongly Disagree **The class size was 41. One student’s response was invalid.

As well as the students’ final exam papers, the positive results for item 4 are supported by the students’ e-picture-books in which each team incorporated many concepts or elements of what they had learned from sample e- and/or paper-picture-books and the teaching materials, especially those in the textbook: (1) Chapter 2: The Study of Childhood, (2) Chapter 6: First Books, (3) Chapter 7: The Art of Picture Books, (4) Chapter 9: Folk Literature, (5) Chapter 10: Fantasy, and (6) Chapter 12: Biography and Information Books (Russell, 2009). Two examples are *Cloud, Color, and Car* (see Picture 1) and *Taiwan’s Holidays* (see Picture 2).

The e-work, *Cloud, Color, and Car*, is a short e-concept-book about some toddlers or preschoolers who use their imagination to enjoy themselves, making an interesting connection between clouds and colored cars at a park in a sunny day. In his final exam paper, the student, Albert, vividly describes the connection between their e-work and what they have learned in class such as the elements of creating a picture book and Piaget’s Cognitive Development theory in the textbook:

Albert: We made a concept book that conforms to [the passage] in Chapter 6, “Concept books present, as the name



suggests, cognitive concepts to toddlers and preschoolers. They might focus on colors, or shapes, or the seasons, or opposites, or sounds, or bodily functions.... Concept books are didactic books—that is, they are meant to teach—but the most effective ones are also entertaining and attractive to look at....since many of these subjects invite creative responses....” (Russell, 6th ed., 2009, p.125)

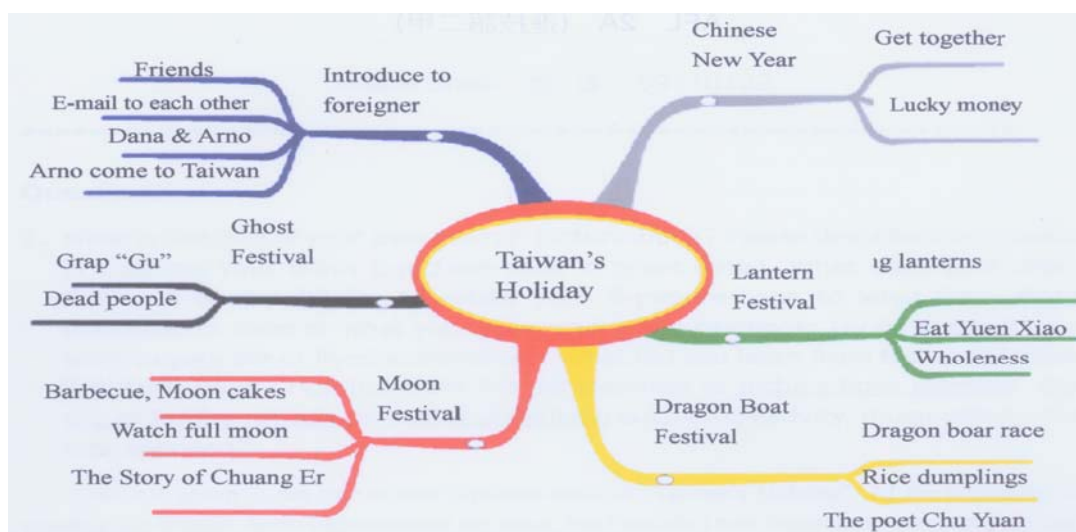
Our e-book is in conformity with the second [period] of Piaget's [Cognitive Development]—the Preoperational Period—occurs between the ages of two and seven, [and in] this period “Children can, however, at a very young age, grasp certain rudimentary concepts, such as colors, shapes, and sizes; children respond well to concept books that present these ideas....they might describe anything that moves in human terms (including animals and machines).” (Russell, 6th ed., 2009, p.32)

We think children have much

imagination and childlike thinking.... “Car” was my nephew’s favorite toy when he was 3 years old, because “Car” can move. “Cloud” is always changing its shape; sometimes you might see the clouds looking like animals or cars. Every “Car” has a “Color” in our book, because [a certain] color is [the] symbol of [a certain car].

Additionally, as Jessie’s mind-map shows (see Mind-map 1), the e-information-book, *Taiwan’s Holidays*, displays five important Taiwan’s holidays, introduced by Dan to her foreign friend, Arno. These include Chinese New Year, the Lantern Festival, the Dragon Boat Festival, the Moon Festival, and the Ghost Festival. Jessie wrote in her final paper:

Jessie: ... our e-book belongs to [an] information book. It is a kind of mixed style; I mean we combined photography and cartoon pictures in the book. By introducing our culture to foreign people, we not only make them learn about the culture, we also learn more about ourselves.



Mind-map 1 by Jessie



2. How did the weekend-program undergraduates respond to the e-PBC from the perspective of critical thinking?

In Table 3, the results for item 5, “*e-Picture-Book Creating* was helpful to increase my critical thinking ability,” showed that all the 40 (100%) responding students strongly agreed (45.0%), agreed (47.5%) or

somewhat agreed (7.5%) that the e-PBC helped them to increase their critical thinking ability, which is also reflected in the mean value, 5.38, of item 5. No student responded negatively to the feasibility of the assignment from the perspective of critical thinking ability development.

Table 3
Results for item 5: *e-Picture-Book Creating* was helpful to increase my critical thinking ability.

Rating*	6	5	4	3	2	1	Total
Valid Responses	n=18	n=19	n=3	n=0	n=0	n=0	N=40**
Percent	45.0%	47.5%	7.5%	0.0%	0.0%	0.0%	(100%)
Total	108	95	12	0	0	0	215
Mean Value							5.38

*6: Strongly Agree; 5: Agree; 4: Somewhat Agree; 3: Somewhat Disagree; 2: Disagree; 1: Strongly Disagree **The class size was 41. One student’s response was invalid.

Table 4 shows the results for sub-items 5-1 to 5-6 in item 5 concerning the development of creativity (5-1), imagination (5-2), respecting differed perspectives (5-3), cooperation (5-4), peer relationship (5-5), and social skills (5-6). Interestingly enough, there is only a slight difference of 0.18 between the mean value (M= 5.38) of item 5 (see Table 3) and the average,

5.20, of the mean values of the six sub-items 5-1 to 5-6 (see Table 4) in item 5. On the one hand, the slight difference reveals that the statistics in Tables 3 and 4 are reliable. On the other hand, it follows from the result that all the responding students rated these items very carefully and honestly. As such, the credibility of the study was strong.

Table 4
Results for sub-items 5-1 to 5-6 in item 5

Item	M	6	5	4	3	2	1
(5-1) <i>e-Picture-Book Creating</i> was helpful to increase my creativity.	5.39	n=17 42.5 %	n=21 52.5 %	n=2 5.0 %	n=0 0.0 %	n=0 0.0 %	n=0 0.0 %
(5-2) <i>e-Picture-Book Creating</i> was helpful to increase my imagination.	5.37	n=18 45.0 %	n=18 45.0 %	n=4 10.0 %	n=0 0.0 %	n=0 0.0 %	n=0 0.0 %
(5-3) <i>e-Picture-Book Creating</i> was helpful for my learning to respect different ideas.	5.34	n=21 52.5 %	n=13 32.5 %	n=5 12.5 %	n=0 0.0 %	n=1 2.5 %	n=0 0.0 %
(5-4) <i>e-Picture-Book Creating</i> was helpful to increase cooperation.	5.20	n=18 45.0 %	n=13 32.5 %	n=7 17.5 %	n=2 5.0 %	n=0 0.0 %	n=0 0.0 %
(5-5) <i>e-Picture-Book Creating</i> was		n=13	n=18	n=5	n=3	n=1	n=0



helpful to increase peer relationship.	5.00	32.5 %	45.0 %	12.5 %	7.5 %	2.5 %	0.0 %
(5-6) <i>e-Picture-Book Creating</i> was helpful to increase my social/communication skills.	4.90	n=8 20.0 %	n=21 52.5 %	n=9 22.5 %	n=2 5.0 %	n=0 0.0 %	n=0 0.0 %
* M= mean value **6: Strongly Agree; 5: Agree; 4: Somewhat Agree; 3: Somewhat Disagree; 2: Disagree; 1: Strongly Disagree ***The class size was 41. One student's response was invalid.							

The results for sub-item 5-1 (see Table 4), “*e-Picture-Book Creating* was helpful to increase my creativity,” showed that all the 40 (100%) responding students strongly agreed (42.5%), agreed (52.5%) or somewhat agreed (5.0%) that the e-PBC helped them to increase their creativity, which is also reflected in the mean value, 5.39, of sub-item 5-1. No students responded negatively to the feasibility of the assignment as an aid to creativity.

Likewise, the results for sub-item 5-2 (see Table 4), “*e-Picture-Book Creating* was helpful to increase my imagination,” indicated that all the 40 (100%) responding students strongly agreed (45.0%), agreed (45.0%) or somewhat agreed (10.0%) that the e-PBC assignment helped them to inspire their imaginations, which is also reflected in the mean value, 5.37, of sub-item 5-2. No students responded negatively to the feasibility of the assignment helping to develop their imagination.

The results for sub-item 5-3 (see Table 4), “*e-Picture-Book Creating* was helpful for my learning to respect different ideas,” displayed that 39 (97.5%) responding students strongly agreed (52.5%), agreed (32.5%) or somewhat agreed (12.5%) that the e-PBC helped them to respect different ideas, which is also reflected in the mean value, 5.34, of sub-item 5-3. Only one (2.5%) female responding student disagreed that this assignment helped her to learn to respect differed perspectives.

The results for sub-item 5-4 (see Table 4), “*e-Picture-Book Creating* was helpful to increase cooperation,” showed that 38 (95.0%) responding students strongly agreed (45.0%), agreed (32.5%) or

somewhat agreed (17.5%) that the e-PBC worked in boosting their cooperation, which is also reflected in the mean value, 5.20, of sub-item 5-4. Two (5.0%) female responding students held a negative attitude toward the feasibility of the assignment from the perspective of cooperation development.

The results for sub-item 5-5 (see Table 4), “*e-Picture-Book Creating* was helpful to increase peer relationship,” presented that 36 (90.0%) responding students strongly agreed (32.5%), agreed (45.0%) or somewhat agreed (12.5%) that the e-PBC worked in enhancing their peer relationship, which is also reflected in the mean value, 5.00, of sub-item 5-5. Three (7.5%) female responding students took somewhat negative attitude and one (2.5%) had a negative attitude toward the feasibility of the assignment from the perspective of boosting peer relationship.

The results for sub-item 5-6 (see Table 4), “*e-Picture-Book Creating* was helpful to increase my social/communication skills,” showed that 38 (95.0%) responding students strongly agreed (20.0%), agreed (52.5%) or somewhat agreed (22.5%) that the e-PBC worked in increasing their social or communication skills, which is also reflected in the mean value, 4.90, of sub-item 5-6. Two (5.0%) female responding students somewhat disagreed that this assignment enabled them to increase their social/communication skills.

Lack of involvement is one reason which can be found to explain all the negative responses to sub-items 5-3 to 5-6. Those who did not actively involve themselves in the process of creating their



e-books with their group members did not have any opportunity to learn to respond mindfully to different ideas, nor to increase mutual cooperation, friendship and their communication skills. Two female students wrote in the free comments of the questionnaire:

Free Comment 1: I rate this sub-item [5-5 as] 3, because there [was] someone [who] did nothing for [our] E-book.

Free Comment 2: {We went to school on weekends. We did not have much time to get together for discussion, so we always communicated with one another through e-mail. As such, certain shy or silent group member(s) were more or less ignored.}

The positive results for item 5 and its sub-items 5-1 to 5-6 were bolstered by the students' final exam papers. For example, Erin's paper supported the results for item 5 (critical thinking), sub-item 5-1 (creativity), sub-item 5-2 (imagination), sub-item 5-3 (respecting different ideas), and sub-item 5-4 (cooperation). She wrote:

Erin: [At first, we all] started brainstorming and distributed [the] job [to each]. Our topic is Run Away from H1N1 [(see Picture 2)]. When I take the responsibility to draw and design, I keep thinking about how to design the children's book.... I begin searching for information.... Therefore, first, I looked for all related books at home.... Then, I went to the bookstore to read more children's books. those books g[a]ve me some creativity to design

the book. From one of the books I read, it [told] me we should design it from children's point of view. It let me spend more time considering about the E-book. I told myself [that] being confident [was] the first step toward becoming successful. I seriously considered about the unity between words and pictures. I hoped our E-book contained simple words, cute pictures, propaganda effects and correct concept for them. In addition to this, it contained the layout, colors, visual fluency and surprises. As long as children know the right concepts, they will not be afraid of the virus. These ideas were my goal to the book.

Cherry's paper bolstered the results for items 5-4 (cooperation) and 5-5 (friendship). She wrote:

Cherry: I am happy to be with our team members, because no one [was] lazy or would like to escape from our team work. Everyone is active, especially our team leader---"Rickey." So it is successful to finish our e-Picture-Book. I appreciate every [one] of our team members.... The cooperation of team work is very important, especially when [we] faced some problems during the [creating] process. It also improve[d] our interpersonal relationship at [the] same time.

Shana's paper supported the results for item 5 (critical thinking), sub-item 5-2 (imagination), sub-item 5-3 (respecting different ideas), sub-item



5-5 (friendship), and sub-item 5-6 (social skills boost).

She wrote:

Shana: And the e-picture-book increase[d] my imagination [in] which I thought a lot of things about [what] children could understand and [what was] fun and vivid. Of course, increasing interpersonal relationship, we should communicate [with] each other closely, and exchanging our opinions, [we] also tried to accept and [think about different] opinions.

3. How did the weekend-program undergraduates respond to the e-PBC from the perspective of multimedia literacy?

In Table 5, the results for item 6, “*e-Picture-Book Creating* was helpful for me to increase my multimedia/computer literacy,” showed that 36 (90.0%) out of the 40 responding students strongly agreed (35.0%), agreed (40.0%) or somewhat agreed

(15.0%) that the e-PBC assignment enabled them to increase their multimedia or computer literacy, which is also mirrored in the mean value, 5.00, of item 6. Four (10.0%) responding students somewhat disagreed with the effectiveness of the assignment from the perspective of multimedia literacy boost; no responding student rated item 6 as “disagree” or “strongly disagree.” Two reasons which could be found in the current data to describe these four somewhat negative responses were the lack of involvement (see Free Comments 1 and 2), and the mastering of computer (see Free Comment 3). If a learner was not engaged in the process of creating an e-book with his/her group members, how could s/he increase his/her multimedia literacy? In addition, one male student rated item 6 as 3 because he was good at computer. He wrote in the free comments of the questionnaire:

Free Comment 3: Because I have strong computer skill[s], this class has not help[ed] me [increase my] computer [literacy] very much.

Table 5
Results for item 6: *e-Picture-Book Creating* was helpful for me to increase my multimedia/computer literacy.

Rating*	6	5	4	3	2	1	Total
Valid Responses	n=14	n=16	n=6	n=4	n=0	n=0	40**
Percent	35.0%	40.0%	15.0%	10.0%	0.0%	0.0%	(100%)
Total	84	80	24	12	0	0	200
Mean Value							5.00

*6: Strongly Agree; 5: Agree; 4: Somewhat Agree; 3: Somewhat Disagree; 2: Disagree; 1: Strongly Disagree **The class size was 41. One student’s response was invalid.

The positive results for item 6 are supported by the students’ final exam papers. In particular, the student, Albert, employed Flash, Photoshop, and PhotoImpact to edit their team e-work. He wrote:

Albert: In fact, before I made the e-book, I didn’t use Flash to make a complete creation. ...we used two Photo editor programs, Photoshop and PhotoImpact, to make the cars’



pictures become hand-drawing. Drawing by hand is [to make] the pictures [dim] or cartoon-like that would conform to a baby's view.

The student Emma learned how to employ InAlbum in her team e-book and she thought such software had several possible functions in the Internet community, picture editing being one of them. Also, she found that the exercise helped to improve her computer skills. She wrote:

Emma: According to what I've learned, I am familiar with some image software and also am good at operating the computer system. However, it is my first time to hear InAlbum, I find it has strong functions like photo album. That's very suitable for today's Internet society. It can not only edit pictures, but also have a lot of effects for display.

4. Other Findings

Several students mentioned that they employed the InAlbum in their life or their current jobs. One female student mentioned in her free comments of the questionnaire that she would use the InAlbum to arrange the pictures which had been taken in the church activities. She commented:

Free Comment 4: I like this class, really funny, about the e-book. I can use it to [arrange] my activity pictures of church. It's a good soft [art], really!

Camel, one male student who was teaching in a children's English cram school, showed the InAlbum

software and the class's e-works to his coworkers. They thought using e-books could improve children's English, so that they would create InAlbum-based teaching materials in the coming winter break. He wrote:

Camel: This Tuesday, I had a meeting with my coworkers that [were] English teachers. I played some e-picture-books for them. We all agreed that might help improve the learning effect for children. We'll get their agreement, and play for students [in our cram school] in [the] winter break.

VI. Conclusion and Implication

The e-Picture-Book Creating (e-PBC) assignment allowed the weekend-program undergraduates to learn about picture books (M=5.20), offer many opportunities to develop their critical thinking ability (M=5.38), and increase multimedia/computer literacy (M=5.00). These positive responses were supported by the students' final exam papers and their e-picture-books.

The e-PBC assignment and the Invitation Activity aimed to equip the students with an understanding of e- and paper picture books and the use of InAlbum as well as the fostering of critical thinking. They also offered them the opportunity to stimulate their social/cultural concerns cathartically, lucidly and intelligently, which could help them focus on and take a critical and empathetic look at social or cultural issues such as H1N1 (see Picture 2). From the instructor's initial ideas to his students' creating of e-works, innovation was concurrently occurring, which made both teaching and learning a bit more rewarding.



The results of the research study are beneficial in a host of ways, and the researchers of this study set out ideas for subsequent research in line with any significant findings of the current study herein:

- (1) The researchers acquired baseline information about the student participants' acquisition of picture books and InAlbum, and the fostering of critical thinking through the e-PBC assignment and Invitation Activity. Such information can make a useful contribution to the practice, theory and research in the fields of children's literature, critical thinking, multimedia literacy, and effective instruction.
- (2) Presented in the Invitation Activity and on e-Campus class blog, the students' e-picture-books can mirror the development of picture book acquisition, social-concern awareness, and critical, aesthetic and creative thinking (Wirtz, 2006), which can echo with the goal of the assignment. In particular, the work, *Run Away from H1N1* (see Picture 2) reveals one current social issue or concern about how to avoid getting H1N1.
- (3) The e-PBC assignment and the Invitation Activity may be easily adapted to different teaching levels and contexts, which would allow students to learn about required readings and offer many opportunities to develop their critical thinking ability through the exploration of their own experiences, memories, and aspirations, and even their cultures (see Picture 3). What is more, the results of the study may prompt interested teachers to creatively design their assignments and teaching activities for their courses, such as English Writing and English Grammar, to achieve goals similar to those shown in this study.
- (4) Interested researchers may conduct similar and/or further research studies related to the e-PBC and the Invitation Activity to make a contribution to the fields of children's literature, teaching methods,

software use, and critical literacy. As such, a topic for future research might be: How did college students respond to the English-grammar-related e-Picture-Book Creating in an English Grammar class from the perspectives of English grammar acquisition, critical thinking stimulation, and technology employment respectively?

- (5) This study may convince educators of their students' potential for creative learning and critical thinking, especially in terms of creativity and imagination. In other words, students can be potential creators and/or critical thinkers as long as they are exposed to critical learning environment. In brief, teachers should not underestimate their students, but support and challenge their creativity instead.
- (6) Human beings are not perfect, so what human beings create cannot be perfect, including the instructor. Therefore, possible reasons have been brought up to explain why certain students scored certain questionnaire items 3 (somewhat disagree) and 2 (disagree). The instructor of the current study and interested teachers may take these possible reasons into consideration for the design and/or application of the e-PBC and the Invitation Activity in their teaching contexts.

VII. Limitations

There are a number of limitations in the current research study:

- (1) The questionnaire was not tested for reliability and validity, and this may skew the results of the questionnaire.
- (2) This study was limited to the demographics of a Children's Literature class in one rural technical university setting. Thus, the results of the study cannot be generalized to students of all levels, ages, or situations since the results may vary a great deal by ages, grades, majors, tastes, cultural



backgrounds, and/or computer literacy.

- (3) Wang (2006, p. 107) mentioned two potential factors which might have skewed the results of his study whose title was Educational Bibliotherapy Study: Taiwanese College Students' Responses to *Tuesdays With Morrie*:

A few students may have worked on their final reflection papers in a positive way and/or scored the anonymous questionnaire high to appeal to the instructor. Also, they may have tried to avoid expressing their [lack of] feeling about or negative responses to the book for fear of suffering reduced final scores.

As such, some of the instructor's students might complete their final exam papers in a less negative way and/or rate the anonymous course questionnaire high to delight the instructor. Rather, some might attempt to show their positive attitude toward or make positive responses to the e-Picture-Book Creating assignment in the consideration of their final scores. These two variables from the student participants may skew the results of the study more or less.

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References

1. Aronson, D. (2006). The First Amendment: A

powerful way to teach critical thinking. *The Council Chronicle*, 16(1), 1 & 5-9.

2. Boyd, F. B., & Howe, D. R. (2006). Teaching Warriors Don't Cry with other text types to enhance comprehension. *English Journal*, 95(3), 61-68.
3. Chance, P. (1986). *Thinking in the classroom: A survey of programs*. New York: Teachers College, Columbia University.
4. Facione, N., & Facione, P. (1994). *Holistic critical thinking scoring rubric*. Millbrae, CA: California Academic Press.
5. Fowler, B. (2009). *Critical thinking across the curriculum project*. Retrieved from <http://www.udlap.mx/promueve/ciedd/CR/pensamiento/CriticalThinkingAcrosstheCurriculumProject.pdf>.
6. Harris, T. L., & Hodges, R. E. (1995). *The literacy dictionary: The vocabulary of reading and writing*. Newark, Del: International Reading Association.
7. Oxman-Michelli, W. (1991). *Critical thinking as creativity*. Upper Montclair, NJ: Montclair State Institute for Critical Thinking.
8. Royster, J. J. (1996). Literature, literacy, and language. In J. F. Slevin, & A. Young (Eds.), *Critical theory and the teaching of literature* (pp. 140-152). Urbana, IL: National Council of Teachers of English (NCTE).
9. Russell, D. L. (2009). *Literature for children: A short introduction* (6th ed.). Boston, MA: Pearson Education.
10. Sharman, S. J., Garry, M., & Beuke, C. J. (2004). Imagination or exposure causes imagination inflation. *The American Journal of Psychology*, 117(2), 157-168.
11. Wang, C.-H. (2004). A lesson plan: "Recycling" poetry. *Journal of National Huwei University of Science and Technology (NHUST)*, 1, 231-238.
12. Wang, C.-H. (2006). Educational bibliotherapy



- study: Taiwanese college students responses to Tuesdays with Morrie. Taipei, Taiwan: Crane.
13. Wang, C.-H. (2008). Picture book creating and an invitation activity in a children's literature classroom. *Studies in English Language and Literature*, 21, 63-76.
14. Wang, C.-H., Chiu, C.-Y., & Wu, W.-S. (2010). English picture-book creating (EPBC) and English puppet show DVD creating (EPSDC). *The International Journal of Learning*, 17(4), 355-379. (NSC-96-2411-H-150-004)
15. Wang, C.-H., Ting, M.-H., Lin, D.-W., Yen, H.-C., & Su, P.-S. (2013). e-Work creating for place-based learning. *The International Journal of Technology, Knowledge and Society*, 8(4), 49-64.
16. Wang, C.-H., Wang, J., Wu, Y.-Z., & Kuo, J.-M. (2005/2006). Literacy in English conversation through critical thinking and writing. *International Journal of Learning*, 12(8), 95-105.
17. Wirtz, J. (2006). Creating possibilities: Embedding research into creative writing. *English Journal*, 95(4), 23-27.



Appendix: Final Exam in Children's Literature (Fall 2009)

Note:

1. Deadline: Jan. 3, 2010
2. Department, year, name (English and Chinese), and student ID number
3. You should type the questions and your answers; you may draw a brief **mind-map** to summarize each answer or all the answers through computer or with a pencil/pen.
4. No folders; no cover page.
5. The language(s) you are required to use: **English** or **Chinese-English**.
6. Give **examples** to support your answers.
7. You should submit your paper on the due day (potluck day) and then post it on our e-Campus.

Questions:

1. What is the title of your own team e-picture-book? Please describe the process of creating your team e-picture-book in great detail. What does your team e-picture-book tell? Try to relate your e-picture-book to what have been discussed in class or what you have read in the textbook; try to connect your work to your life or lived experiences. What did you learn from the assignment, e-Picture-Book Creating, from the perspectives of picture book learning, the use of InAlbum/flash, and critical thinking (創意思考) such as creativity, imagination, and interpersonal relationship? Any other relevant answers are welcomed. (60%)
2. What did you learn from the Invitation Activity or e-picture-book demonstration from the perspectives of picture book learning, the use of InAlbum/flash, and critical thinking? What e-picture-books greatly impressed you and why? What are the titles of other teams' works you like? What do they tell in your own opinion? Try to relate their works to what have been discussed in class or what you have read in the textbook; try to connect their works to your life or lived experiences. What did you learn from other teams' works and this activity/demonstration from the perspectives of picture book learning, the use of InAlbum/flash, and critical thinking (創意思考) such as creativity and imagination? Any other relevant answers are welcomed. (40%)
3. Any other reflections on or comments on or suggestions about the class, especially co-teaching. (Bonus: 5 points)



「英文兒童文學」課程之「電子繪本創作」

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摘 要

「電子繪本創作」(e-Picture-Book Creating) 是台灣在職專班學生「英文兒童文學」課程的一項作業，此作業的目的是為了讓他們學習兒童繪本相關知識，熟悉操作 InAlbum 軟體，及激發他們的創意思考。本研究的目的是要了解學生們對此作業的反應。引導此研究的三個問題如下：(1) 以獲取繪本知識的觀點來看，在職專班學生對「電子繪本創作」的反應為何？(2) 以創意思考的觀點來看，在職專班學生對「電子繪本創作」的反應為何？(3) 以多媒體知識與技能的觀點來看，在職專班學生對「電子繪本創作」的反應為何？研究的資料包括學生填寫的 6 級分課程評量問卷、電子繪本和期末報告。研究結果顯示，在職專班學生傾向非常同意「電子繪本創作」有效地幫助他們學習兒童繪本 (M=5.20)，提高創意思考能力 (M=5.38)，並增加多媒體或電腦方面的知識與技能 (M=5.00)。因此，希望有興趣的教師可以考慮在自己的教學中設計安排這樣的作業，讓學生獲取繪本的知識，增進創意思考能力，提升軟體應用素養，和激發社會關懷意識。有興趣的研究人員也可以複製這項研究，或更進一步的在其他領域研究有關「電子繪本創作」的影響。本文展示部份學生的電子繪本，以茲分享和佐證。

關鍵字: 電子繪本、課程作業、創意思考、InAlbum 軟體

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