Effects of Using Digital Comics to Improve ESL Writing

[1]Melor Md Yunus, [2]Hadi Salehi and [1]Mohamed Amin Embi
[1]Faculty of Education, Universiti Kebangsaan Malaysia, Malaysia
[2]Faculty of Literature and Humanities, Najafabad Branch, Islamic Azad University,
Najafabad, Isfahan, Iran

Abstract: Information Communication Technology (ICT) is used in modern education to help teachers to perform administrative tasks more efficiently and students learn more effectively. As one of the pedagogical tools that involve the application of ICT, digital comics offer many advantages, particularly in the creation of an engaging learning environment. Using digital comics as a language-learning tool clearly seems to be one of the most effective ways to teach ESL writing to students who have low proficiency in the English language. This study aims to investigate the perceptions of teacher trainees with regard to the use of digital comics in teaching writing to low-achieving ESL learners. A questionnaire survey was administered to 30 TESL teacher trainees at a state university in Malaysia. The findings showed that the teacher trainees had a positive attitude towards using ICT in teaching writing and most of them agreed that digital comics enable them to help low-achieving language learners to write in English. At the same time, however, the teacher trainees perceived the use of digital comics in the classroom as time consuming and impractical.

Keywords: Digital comics, ESL writing, ICT, perception, teacher trainees

INTRODUCTION

English learners often need to be encouraged and motivated to engage actively in learning the four language skills of writing, speaking, reading and listening. Furthermore, many teachers are inspired to be as creative as possible, in order to encourage learners to study English more effectively. The chief problem that the teachers face in teaching writing skills is lack of interest among low-achieving ESL learners. Sampath and Zalipour (2010) stated that students consider writing to be an extremely difficult area in learning English and it seems to be a daunting task for most ESL learners. They believed that students are not aware of writing skills and they are usually not motivated to write in English. In addition, according to the National Commission on Writing (2004), writing well is a vital skill for academic or occupational success, but one that is especially difficult for second-language learners to master. In view of this, educational researchers have shown an interest in exploring the possibilities of using Information Communication Technology (ICT) tools for language teaching and learning.

LITERATURE REVIEW

Definition and history of comics: According to the (Oxford Dictionary, 2000) comics are to be defined as an art form that features a series of static images in fixed sequence, usually to tell a story. Typically, comics are printed on paper and text is often incorporated into the images. The most common formats are newspaper strips, magazine-format comic books and larger, bound volumes called graphic novels. Meanwhile, Hayman and Pratt (2005) defined 'comic' as a sequence of discrete, juxtaposed pictures that comprise a narrative, either in their own right or when combined with text. For the purpose of this study, digital comics may be understood as comics that are published on a website. Other terms that also refer to digital comics include web comics, online comics and Internet comics.

The use of comics for educational purposes, especially in printed form, began in the USA in the middle of the 20th century and this practice expanded into a worldwide trend over subsequent years (Symeon, 2008). The use of comics in education, then, has an unexpectedly long history. Since the early 1940s, many educators in the USA have conducted studies into the use of comic books in education and have provided data regarding their usefulness in this respect (Retalis, 2008). In a book titled *Seduction of the Innocent*, however, Wertham (1954) argued that comics were a harmful literacy tool. This book led to Senate hearings and a censorship code, with the consequence that pro-comic educators eventually ceased promoting the use of comics in education (Retalis, 2008). In the 1970s, however, teachers began to dare to use

Corresponding Author: Hadi Salehi, Faculty of Literature and Humanities, Najafabad Branch, Islamic Azad University, Najafabad, Isfahan, Iran

comic books again. An important milestone was reached in 1992 when Art Spiegelman's comic book, *Maus*, won the Pulitzer Prize, proving that comics can be artistically mature and literate works (Retalis, 2008).

In the last two decades, collaborative research projects have been conducted by educators from colleges and universities in different countries. Bitz (2004) began an arts-based literacy and learning initiative project in an elementary school in Queens, USA (Retalis, 2008). The goal of this project is to assist children to write, design and publish their own comic books, according to their personal experiences and interests, in what is called an 'alternative pathway to literacy'. In 2003, a national project focusing on teaching comic books started in 250 Italian primary schools, with the aim of developing language and ICT skills, as well as forging an international language of communication (Retalis, 2008). The positive results of this project were presented at an international conference in Rome in 2004. A project in Belgium suggested comics for students to find, in order to decode the scientific experiments of the heroes. A number of mysteries had to be solved in order to discover the final solution. More than 7000 students participated over the course of three editions. In Great Britain, a number of school projects were initiated, in which teachers used comics to promote and extend students' interest in reading and writing. In these projects, pupils studied comic books, or worked in teams to create their own comics, which they then shared with their fellow students (Retalis, 2008).

Characteristics of comics: In order to integrate digital comics into the teaching and learning process and so motivate low-proficiency students in writing, there are several characteristics of comics that are important to identify. According to Meskin (2007), comics involve two basic art styles, realistic and cartoony. Second, as Saraceni (2003) has described, comics contain the following components: panels, gutters, balloons and captions. These can be explained as follows:

- **Panels:** Each page is normally composed of a number of rectangular frames named panels.
- **Gutter:** Each panel is separated from the others by a blank space called the gutter.
- **Balloons:** The use of balloons, in which text is inserted into the panel which contains the pictures, is one of the principal characteristics of comics. Other types of printed materials, such as children's books and advertising, also combine images and words, but the use of balloons is unique to comics.

McCloud (1993) and Eisner (1985) and Tatalovic (2009), draw attention to 'sequential art' as the definitive characteristic of the comic book medium. Varnum and Gibbons (2001) similarly proposed that comics are seen as a narrative form consisting in pictures arranged in sequence. In addition, Kannenberg (2002) described the pictures in a comic as the visual narrative and the words as the textual narrative. Comics are thus characterized by the combination of pictures with a relatively small number of words, organized into graphically separated units in sequential order. Some researchers agree that balloons or bubbles are the essential or crucial feature in the comics, containing speech, text, or a caption that presents the character or the narrator's voice, giving the story or 'life' to the comics. Without the text in the balloons, the reader is unable to follow the narrative of the comic. According to Khordoc (2001), balloons contain direct speech, but significant proportions of it are essentially narrative. A balloon depicts a character is speaking in the first person and thus involves the reader more deeply in the story. Furthermore, balloons may report speech or thought. The tail of the balloon indicates the character who is speaking or thinking, while a caption appears not inside the panel, but always as a separate entity, at the top or bottom of the panel. The texts in the caption represent the narrator's voice, contributing information to the dialogue in the balloons (Khordoc, 2001).

Benefits of comics in education: Several researchers have explored the strengths of comics in education. Yang (2003) stated that human beings have a natural tendency towards pictures, hence the ability of comics to capture and maintain learners' interests. Children in particular have a natural attraction to comics and by welcoming comics into the classroom, educators can take advantage of the extraordinary motivating power of comic books (Haugaard, 1973). Moreover, comics are considered as an intermediate step to disciplines and concepts, scaffolding difficult concepts beyond the language arts. Comics can provide the reluctant reader with non-threatening practice material and the experienced reader with inspiration and confidence.

Additionally, according to (Versaci, 2001; Yang, 2003), the comic's combination of images and texts share the burden of the story. Through this 'interplay of the written and visual', comics 'put a human face on a given subject', resulting in emotional connection between students and the characters in a comic's narrative. Furthermore, (Williams, 1995; Yang, 2003), regards comics as a permanent, visual component, in contrast to film and animation, where the medium dictates the pace of the viewing process. The text medium is similarly permanent, but not 'pictorial'. 'Visual permanence' is distinctive to comics, as time within a comic book progresses at the pace of a reader. Last but not least, analytical and critical thinking skills can also be developed through reading comic books.

The use of ICT in teaching writing skills: Digital comics are one of the pedagogical tools that involve the application of ICT. Nowadays, many instructors prefer to utilize ICT in teaching and learning, due to the advantages that it offers, especially in creating an engaging learning environment (Melor, Maimun and Lin, 2009; Maimun *et al.*, 2009; Roberto, 2007). Indeed, ICT is a common phenomenon in modern society. The 'Net Generation' is becoming increasingly aware of the importance of ICT in contemporary life, insofar as ICT not only provides us with current information, but also aids us in learning. The computer provides interactive audio and visual technology which helps the user to make the teaching and learning process fun, interactive and cooperative, as well as effective in passing on linguistic instruction (Brown, 2001).

The reformation of the education system in the west, especially in the United States of America (USA), has rendered ICT one of the most important tools in the teaching and learning processes. Neo (2004) claimed that ICT has had a significant impact and has influenced teachers in the development of new perspectives and innovative teaching techniques. Nowadays, teachers use technology throughout their work and not just as part of the teaching and learning process (Melor and Lin, 2009; Maimun *et al.*, 2009). Moreover, the use of technology enables students to use both the language and the technology (Melor, 2007). According to Wang (2002), the broadening of a teacher's perspective on education is a particularly valuable indicator of his or her ability or desire to implement the use of technology in the classroom. In light of the fact that teaching with computers requires a shift from traditional practices, teachers who hold teacher-centred beliefs about teaching and learning will be less likely to view technology as a fundamental learning tool.

Permeating the research conducted into specific areas is the cumulative evidence of the positive impact that ICT has had on teaching and learning. Goldberg *et al.* (2003) concluded that students who use computers when learning to write are not only more engaged and motivated in their writing, but produce written work that is of greater length and higher quality. Rafiza and Adelina (2004) conducted a study on the advantages of dialogue journals that use email technology in developing students' writing skills and the ways in which such activities be used to improve ESL teaching and learning in Malaysian secondary schools. In this study, the researchers stated that the use of dialogue journals through e-mail could help to enhance student interest, the level of student-teacher interface and the standard of ESL writing in Malaysia. Finally, Norlida and Supyan (2002) conducted a study on how e-learning aided learners in a writing course. This study examined the learners' perceptions of the degree of helpfulness of web-based language-learning activities and concluded that e-learning is considered as a useful tool to enhance learners' writing skills.

Digital comics as a tool in teaching writing skills: In his study, 'Comic Life in Education', Bledsoe (2010) reported that many students read fluently but they find it difficult to write. They complain that they do not know what to write; they have ideas, but lack the written language skills to create a beginning, follow a sequence of ideas and then draw their writing to a logical conclusion; students frequently ask if they may draw a picture when they are writing, reaching for images to support their language ideas. As in the reading process, comics provide a scaffold that enables students to experience success in their writing. According to Bledsoe (2010), Comic Life software offers students a new publishing medium. Comic Life documents can be printed, emailed to parents, or posted as a website very easily. Recent studies show that teachers believe that it is easier to teach writing, grammar and punctuation, as well as scientific concepts, using materials that students are fully invested in, such as printed or digital comic books. The kinds of 'writing' decisions that students make in this media go far beyond the text. Furthermore, Bledsoe (2010) pointed out that if they have the skills, students can create movies, podcasts, digital stories which are, although 'written', recorded in other media than text. The skills learned during this process are, according to Bledsoe (2010), essential in helping learners to spell correctly or organize thoughts into paragraphs.

Besides this, writing is a notoriously difficult aspect of language learning for most ESL students and especially for low achievers. This is at its worst when students lack the motivation and interest to write in English. However, according to Faulkner (2009), using digital comic can spur students' interest in the written word. On a similar note, Zimmerman (2010) pointed out that while learning a new language can be a daunting and frustrating experience, he has yet to see a frown or a tear shed among students creating and working with comics. Digital comics also encourage students to work collaboratively, as digital comics are a powerful tool for online collaboration. This can subsequently improve students' language skills. Educators teaching new vocabulary or grammatical structures might instruct students to create a comic strip, in which the characters use the words or constructions that have been learned in class. This is a much more engaging way to practise linguistic and creative writing skills than writing words alone on a blank page (Zimmerman, 2010).

In summary, there are many ways to use digital comics as a learning tool to practice writing in an ESL classroom. According to Thacker (2007), as soon as early

readers or novice learners of English are ready to connect words with images, the written component of a comic can be introduced as part of the teaching and learning process. He also asserted that comics can help early readers or readers with language acquisition problems by providing visual clues to the context of the narrative. Indeed, a comic can help in learning English, as students must, before they can create a simple dialogue, decode and comprehend language devices such as puns, alliteration, metaphors, symbolism, point of view, context, inference and narrative structures. A comic can be a stepping-stone in helping students to produce more complex and traditional written work.

Advantages and limitations of using digital comics in the classroom: It is undeniable that digital comics offer many benefits, particularly to ESL learners. First and foremost, digital comics are useful in a variety of teaching and training settings (Berkowitz and Packer, 2001). This is because comics attract learners regardless of age, as the sentences are more simple, fun and suitable to the language used among young people. Furthermore, the content of a comic is often colourful, while the writing style is not as complex as that of academic journals or books. By using digital comics in teaching, according to Mayer and Moreno (1998), the educator introduces concepts indirectly, using cartoon and narration simultaneously.

Furthermore, the use of digital comics as a language-learning tool seems obviously to be one of the most effective ways to teach writing to students who have low proficiency in the English language. Zimmerman (2010) reported that an effective and efficient way to strengthen students' emerging facility in the English language is to narrate stories using comic strips. Telling stories by building comic strips has similarly been proven to make the language-learning process a much more enjoyable experience. Zimmerman (2010) has also emphasized the fact that online comics are an effective resource to help students to be creative, reduce anxiety and have fun during the acquisition of a new language, as well as enabling them to master the language in a short period of time. Besides this, comics can serve as an intermediate step to difficult disciplines and concepts. Comics can lead students towards the discipline of reading, especially those who do not enjoy reading or have a fear of failure. This claim has been supported by a study at the University of Pittsburgh, which found that comic books are useful in remedial reading instruction (Retalis, 2008). Apart from this, motivation is a crucial element in learning a new language. The most frequently mentioned asset of paper comics as an educational tool is their ability to motivate students and this is also one of the advantages

of digital comics. This was reported by Hutchinson, (1949) and Yang (2003), stating that 74% of teachers admit that comics are helpful for motivation, while 79% claim that comics can increase individual participation. In addition, Haugaard (1973) claimed that by welcoming comics into their classrooms, educators could take advantage of the 'fantastic motivating power of comic books'. Research shows that online comics, such as web comic strips, web comic books and concept cartoons, are a valuable learning resource for informal assessment, motivating and enabling students to exchange their ideas and construct knowledge collaboratively, as well as promoting learner involvement and motivation (Saraceni, 2003; Tatalovic, 2009; Varnum and Gibbons, 2001; Kannenberg, 2002; Khordoc, 2001; Yang, 2003).

Comics are created via the combination of pictures and other images. McCloud (1993) stated that a comic which is composed of 'pictorial and other images' is a fundamentally visual medium. The visual aspect of comics constitutes its primary advantage over other literary forms (Brocka, 1979). Additionally, the visual quality offered in comics can assist low- and middle-achieving learners and can enhance learning. In the struggle to engage students of all learning dispositions, comics can prove a powerful tool. Moreover, by using digital comics, students can be inspired to create their own comic strips. This involves various skills. According to Courtis (2008), composing a comic involves a range of skills and cognitive processes. Depending on the assignment, students may have to organize, analyze and synthesize information. For example, in composing the setting of the comic, students have to visualize their interpretation of the setting, rather than simply compile descriptive words. In addition, digital comics appeal to multiple intelligences. Creating a comic through Comic Life, for instance, provides a hands-on experience, involving students in the task of composing and taking photographs, drawing illustrations, writing and creating a logical sequence of events or frames. Students may also have the option to work individually or in groups. It is believed that visual learners will particularly benefit from the activity (Courtis, 2008).

Courtis (2008) also stated that digital comics can create a meaningful learning environment which allows students to relate material to their own lives and take an active role in their learning. For example, students may choose to act out a text, photograph the events or actions and create a comic from the photographs. Besides this, digital comics are appealing to all students. Using a digital comic is not only fun, but also allows students to design texts according to their own personalities and aesthetic values. For instance, students can choose the characters and the background that they like most, in order to create the most personally engaging comic strips.

However, the digital comic does have its limitations. First and foremost, it is time-consuming, particularly in the process of creation, but also in the tutorials that students need before they can develop their own comic strips and in the collation of images, whether by taking photographs, finding existing photographs, or creating original drawings. Courtis (2008) pointed out that when using digital comic software, especially Comic Life, students need time to plan their comics carefully before realizing them on the computer. Moreover, to make any Comic Life activity effective, multiple computers need to be available simultaneously, potentially over more than one class period. This would require reserving the computer lab for both the tutorial and the actual implementation, which may raise difficulties in schools that have limited resources.

In order to examine the advantages and disadvantages of using digital comics in the classroom, this study was conducted:

• To explore teacher trainees' perceptions of using ICT in teaching ESL writing.
• To find out teacher trainees' perceptions of the advantages and limitations of using digital comics in ESL classrooms.
• To examine teacher trainees' perceptions of applying digital comics in teaching ESL writing to low-achieving learners. The following three specific research questions were posed:
  ○ What are the teacher trainees' perceptions of using ICT in teaching writing?
  ○ What are the teacher trainees' perceptions of the advantages and limitations of using digital comics in ESL classrooms?
  ○ What are the teacher trainees' perceptions of applying digital comics in teaching ESL writing to low-achieving learners?

METHODOLOGY

This study aimed to explore the teacher trainees' perceptions of using digital comics in teaching ESL writing to low-achieving learners. To collect the data, a questionnaire survey was therefore administered to 30 TESL teacher trainees in a Malaysian state university in 2011. There were 13 male respondents and 17 female respondents. The questionnaire design was based on the objectives and research questions of the study. The questionnaire consists of three sections, which include 17 items altogether. Four additional, demographic items were included in the beginning of the questionnaire. The respondents were required to provide background information on age, gender, course and year of study.

The first section of the questionnaire consisted of five items, designed according to the five-point Likert scale of agreement, in order to obtain information about the respondents' perceptions on the use of ICT in teaching writing. The second section consisted of six items that focused on the respondents' perceptions on the advantages and limitations of using digital comics in ESL classes. The third section consisted of six items asked respondents to give their perceptions more specifically on the use of digital comics in teaching ESL writing to low-achieving learners. All the questionnaire items were designed on the basis of the five-point Likert scale of agreement, where one = strongly disagree, two = disagree, three = uncertain, four = agree and five = strongly agree.

FINDINGS AND DISCUSSION

Teacher trainees' perceptions on using ICT in teaching ESL writing: The items in the first section required the respondents to indicate their perceptions on using ICT in teaching ESL writing. As Table 1 shows, the majority of the respondents (83.3%) showed a positive attitude in this respect. Most agreed that ICT can help and motivate low-achieving ESL learners to develop their writing skills. The findings indicated that low-achieving ESL learners need motivation to write in English and the application of ICT can be an important factor in building students' motivation to write in English.

Teacher trainees' perceptions of the advantages and limitations of using digital comics in ESL classrooms: The items in the second section required the respondents to indicate their perceptions on the advantages and limitations of using digital comics in ESL classrooms (Table 2). The findings showed that more than two-thirds of the respondents believed that the use of digital comics in ESL classrooms can create a meaningful learning environment. Similarly, the majority of the respondents (93.3%) agreed that the use of digital comics appeals to students, encouraging them to write in English. Moreover, more than 80% of the teacher trainees agreed that the use of digital comics enables students to utilize multiple skills.

In terms of the limitations of using digital comics in ESL classrooms, all the respondents believed that the use of digital comics in ESL classrooms is time-consuming. This is perhaps due to the technical issues that teachers have to deal with when using a technological tool in their classroom. Furthermore, most of the respondents (70%) believed that the use of digital comics is only suitable for low-achieving language learners. This indicates that the usefulness of digital comics seems limited to low-achieving language learners and inappropriate for

Table 1: Teacher trainees' perceptions of using ICT in teaching ESL writing

Statements	Strongly disagree	Disagree	Uncertain	Agree	Strongly agree
I prefer to use ICT in teaching writing.	0.0	0.0	16.7	60.0	23.3
I will use ICT in teaching writing.	3.3	0.0	16.7	60.0	20.0
Using ICT in language teaching is useful.	3.3	0.0	6.7	56.7	33.3
Using ICT in language teaching can help low-achieving ESL learners to improve their writing skills.	3.3	0.0	6.7	66.7	23.3
Using ICT in language teaching can motivate low-achieving ESL learners to write in english.	3.3	0.0	0.0	80.0	16.7

Table 2: Teacher trainees' perceptions about the advantages and limitations of using digital comics in ESL classrooms

Statements	Strongly disagree	Disagree	Uncertain	Agree	Strongly agree
The use of digital comics in ESL classrooms can create a meaningful learning environment.	0.0	6.7	16.7	43.3	33.3
The use of digital comics appeals to students, encouraging them to write in english.	3.3	0.0	3.3	80.0	13.3
The use of digital comics enables students to utilize and develop multiple skills.	0.0	0.0	16.7	46.7	36.7
The use of digital comics in ESL classrooms is time-consuming.	0.0	0.0	0.0	20.0	80.0
The use of digital comics is only suitable to low-achieving ESL learners.	0.0	0.0	30.0	66.7	3.3
The use of digital comics in ESL classrooms is impractical.	0.0	0.0	0.0	80.0	20.0

Table 3: Teacher trainees' perceptions of applying digital comics in teaching ESL writing to low-achieving learners

Statements	Strongly disagree	Disagree	Uncertain	Agree	Strongly agree
I feel that digital comics are easy to use.	3.3	10.0	26.7	43.3	16.7
I will use digital comics in teaching writing to low-achieving ESL learners.	0.0	00	16.7	66.6	16.7
The use of digital comics is a positive way to attract low-achieving ESL learners to write creatively.	0.0	0.0	3.3	53.3	43.3
Telling stories by building digital comic strips is a way to motivate low-achieving ESL learners to write in english.	0.0	0.0	13.3	60.0	26.7
Digital comics will make the difficult job of writing in english a much more enjoyable experience for low-achieving ESL learners.	0.0	6.7	10.0	46.7	36.7
Writing with digital comics will motivate low-achieving ESL learners to write short sentences in english.	0.0	0.0	20.0	26.7	53.3

intermediate and advanced learners. All the respondents agreed that the use of digital comics in ESL classrooms is impractical. This suggests that the time-consuming nature of digital comics prevents their implementation in ESL classrooms.

Teacher trainees' perceptions of applying digital comics in teaching ESL writing to low-achieving learners: As Table 3 shows, the respondents demonstrated a positive attitude towards applying digital comics in teaching ESL writing. About two-thirds of the respondents felt that digital comics were easy to use and most agreed that they would use digital comics in teaching ESL writing to low-achiever learners. Moreover, the majority of the respondents (96.6%) agreed that the use of digital comics is a positive way to attract low-achieving learners to write creatively. More than 85% of the respondents also agreed that telling stories by building digital comic strips is a way to motivate low-achieving ESL learners to write in English. When the teacher trainees were asked about other applications of digital comics, the majority of them believed that telling stories using digital comics would make the difficult job of

writing in English a much more enjoyable experience for low-achieving ESL learners. Eighty percent further stated that writing with the use of digital comics would motivate low-achieving ESL learners to write short sentences in English. Generally, the respondents considered digital comics easy to use and capable of encouraging students to write creatively, as well as enabling low-achieving ESL learners to write in English.

CONCLUSION

The findings clearly indicated that teacher trainees have positive attitudes towards the use of ICT in teaching writing, with most agreeing that the application of ICT enables them to help low-achieving language learners to write in English. Such attitudes may be due to the importance of ICT in contemporary education. The positive perception of ICT in language teaching and specifically in teaching writing, is also driven by the exposure to ICT that subsequently leads teacher trainees to become aware of the importance of ICT for ESL learners. In terms of the advantages of digital comics, the majority of the respondents agreed that digital comics can attract and encourage low-achieving language learners to

write in English. The appealing features of digital comics thus seem undeniable. With regard to the limitations of this medium, the respondents perceived the use of digital comics in the classroom as time consuming and impractical. This may be due to several factors, particularly technical factors, such as lack of access and training. Melor (2007) reported that one of the disadvantages of ICT in teaching ESL is access to the computer lab. Since the use of digital comics requires an Internet connection, it seems impractical to implement in a classroom. Teachers who intend to use this medium have to bring their students to the computer lab. However, this raises a problem, as an Internet connection may not be guaranteed in the computer lab. Although the majority of the respondents understood the advantages and limitations of using digital comics in ESL classrooms, they also agreed that digital comics are easy to use and that their application may help low-achieving ESL learners in their writing, as it can motivate these learners to write in English. This indicates that the respondents believed that motivation plays an important role in language learning and that using digital comics can develop learners' motivation, serving as a stepping stone for further writing success.

REFERENCES

Berkowitz, J. and T. Packer, 2001. Heroes in the classroom: Comic books in art education. Art Educ., 54(6): 12-18.

Bitz, M., 2004. The comic book Project: Forging alternative pathways to literacy. J. of Adolescent and Adult Literacy, 47 (7): 574-586.

Bledsoe, G., 2010. Comic Life. Computer software. Comiclife.com. Web. 11 Jan. 2010. Retrieved form: http://www.comiclife.com/education.

Brocka, B., 1979. Comic books: In case you haven't noticed, they've changed. Media Methods, 15(9): 30-32.

Brown, H.D., 2001. Teaching by Principles: An Interactive Approach to Language Pedagogy. 2nd Edn., Addison Wesley Longman, Inc., New York, Retrieved form: http://www.cuhk. edu.hk/ ajelt/ vol8/rev1.htm.

Courtis, A., 2008. Tech Module: Using Comic Life in the classroom. Retrieved form: http://cnx.org/ content /m18037/latest/.

Eisner, W., 1985. Comics and Sequential Art. Poorhouse Press.Tamarac, Florida

Faulkner, G., 2009. Digital comics spur students' interest in writing. National Writing Project. Retrieved from: http: //www.nwp.org/cs/ public/ print/ resource/2811.

Goldberg, A., M. Russell and A. Cook, 2003. The effect of computers on student writing: A meta-analysis of studies from 1992 to 2002. J. Techn. Learn. Assess., 2(1): 1-52.

Haugaard, K., 1973. Comic books: conduits to culture? Read. Teach., 27: 54-55.

Hayman, G. and H.J. Pratt, 2005. What Are Comics? In: Goldblatt, D. and B. Lee, (Eds.), A Reader in Philosophy of the Arts, Upper Saddle River, Pearson Education, Inc., NJ., pp: 410-424.

Hutchinson, K., 1949. An experiment in the use of comics as instructional material. J. Educ. Sociol., 23: 236-245.

Kannenberg, G., 2002. The Comics of Chris Ware: Text, Image and Visual Narrative Strategies. In: Varnum, R. and G. Christina, (Eds.), The Language of Comics: Word and Image, University Press of Mississippi, Jacksonville, pp: 74-97.

Khordoc, C., 2001. The Comic Book's Soundtrack: Visual Sound Effects in Asterix. In: Varnum, R. and T.G. Christian, (Eds.), Language of Comics: Word and Image. University of Mississippi, Jackson, pp: 156-173.

Maimun, A.L., A.E. Mohamed, M.Y. Melor, W. Ismail and N. Nor Azah, 2009. The application of multicultural education and applying ICT on Pesantren in South Sulawesi, Indonesia. WSEAS Trans. Inform. Sci. Appli., 6(8): 1401 1411.

Mayer, R.E. and R. Moreno, 1998. A split-attention effect in multimedia learning: Evidence for dual processing systems in working memory. J. Educ. Psychol., 90: 312-320.

McCloud, S., 1993. Understanding Comics. Kitchen Sink Press Inc., Northampton, MA.

Melor, M.Y., 2007. Malaysian ESL teachers' use of ICT in their classrooms: Expectations and realities. RECALL: J. Eurocall, 9(1): 79-95.

Melor, M.Y., A.L. Maimun and C.P. Lin, 2009. Language learning via ICT: Uses, challenges and issues. WSEAS Trans. Inform. Sci. Appli., 6(9): 1453-1467.

Meskin, A., 2007. Defining comics. J. Aesthet. Art Crit., 65(4): 369-379.

National Commission on Writing, 2004. Writing: A Ticket to Work…or a Ticket Out. The College Entrance Examination Board, New York.

Neo, M., 2004. Cooperative learning on the web: A group based, student centered learning experience in the Malaysian classroom. Austral. J. Educ. Techn., 20(2): 171-119.

Norlida, A. and H. Supyan, 2002. E-learning in a writing course at Tenaga National Universiti. TEFL Web Journal. Retrieved form: http://knol2go.com/links/E-learning%20in%20a%20writing%20course%20at% 20Tenaga%20National%20University.htm.

Oxford Dictionary, 2000. 7th Edn., Penguin Press, Hinsdale, IL.

Rafiza, A.R. and A. Adelina, 2004. The use of dialogue journal through E-mail technology in developing writing interest and skills. Malays. Online J. Instruct. Techn., 1(2): 14-23.

Retalis, S., 2008. State of the Art Comics in Education. Using Web Comics in Education. Retrieved from: http://www.educomics.org/material/deliverables/Deliverable1_StateoftheArt.pdf.

Roberto, R., 2007. New horizons in education and educational technology (Proceedings of 6th WSEAS International Conference on Education and Educational Technology. (EDU'07)), Venice, Italy.

Sampath, D. and A. Zalipour, 2010. The Pedagogical potentials of Weblog in Developing Students' Writing Skills: ICT for Language Learning. Retrieved form: http://www.pixel-online.net/ICT4LL2010/ common /download/ Proceedings_pdf/IBL04-Sampath, Zalipour. pdf, 2010 BL04-Sampath, Zalipour. pdf.

Saraceni, M., 2003. The Language of Comics. Intertext. London and New York: Routledge, pp: 110. Retrieved form: http://www. comicsresearch.org/ entries /saraceni.html.

Symeon, R., 2008. State of the art comics in education. Using Web Comics in Education.

Tatalovic, M., 2009. Science comics as tools for science education and communication: A brief, exploratory study. J. Sci. Commun., 8(4): 1-17.

Thacker, C., 2007. How to Use Comic Life in the Classroom. Retrieved form: http://www.macinstruct. com/node/69.

Varnum, R. and C.T. Gibbons, 2001. The Language of Comics: Word and Image. University Press of Mississippi, Jackson, Retrieved form: http:// www. popmatters.com/pm/review/language-of-comics.

Versaci, R., 2001. How comic books can change the way our students see literature: One teacher's perspective. English J., 91(2): 61-67.

Wang, Y., 2002. When technology meets beliefs: Preservice teachers' perceptions of the teachers role in the classroom with computers. J. Res. Techn. Educ., 35(1): 150-161.

Wertham, F., 1954. Seduction of the Innocent. Reinhart and Company Inc., 192: 234-235.

Williams, N., 1995. The comic book as course book: Why and how. Long Beach, CA: Annual Meeting of the Teachers of English to Speakers of Other Languages. (ERIC Document Reproduction Service No. ED 390277).

Yang, G., 2003. Strengths of comics in education. Comics in Education. Retrieved form: http://www. humblecomics. com/comicsedu/strengths.html.

Zimmerman, B., 2010. Using digital comics for language learning. eLearn Magazine. Retrieved form: at: http:/ /elearnmag. acm. org/ archive. cfm aid = 17 10033.