



A Review on the Application of Blog, Blogger, Widget and Hypertext to Develop a Web-Based Instructional Tool

Boon Yih Mah¹ Suzana Ab. Rahim²

^{1,2}Academy of Language Studies, Universiti Teknologi MARA (UiTM), MALAYSIA
mahboonyih@gmail.com

Abstract

The use of the internet for teaching and learning has become a global trend among the education practitioners over the recent decades. The integration of technology and media into Malaysian English as a Second Language (ESL) classrooms has altered the methods in English Language Teaching (ELT). In response to the impact of technology in ELT, the needs of a supplementary instructional platform, and the limitations of the learning management system (LMS) in fostering second language (L2) writing skill, a web-based instructional tool was designed and developed based on a theoretical-and-pedagogical framework namely Web-based Cognitive Writing Instruction (WeCWI). To determine the key concepts while identifying the research gap, this study conducted a literature review using online search on specific keywords including “blog”, “Blogger”, “widget”, and “hyperlink” found in the scholarly articles. Based on the review of literature, Blogger was opted due to its on-screen customisable layout editing features that can be embedded with web widgets and hypertext that share the identical features. By looking into the relationship between perceptual learning preferences on perceived information and the visual representations in iconic and symbolic views, the blogs can come with two different user interfaces embedded with web widgets or hypertext. The blog with web widgets appears in a graphical form of iconic view; while hypertext only displays textual form of symbolic view without involving the visual references. With the injection of web widgets and hypertext into the blogs, WeCWI attempts to offer a technological enhanced ELT solution to overcome the poor writing skill with a better engagement while learning online through the learners’ preferred perceptual learning preferences.

Keywords

web-based instructional tool, web 2.0, blog, Blogger, widget, hypertext, WeCWI

DOI: 10.26418/jeltim.v1i2.31505

1 BACKGROUND

Web-based instructional tool is receiving more attention in the surge of adaptive technology towards the achievement of personalised learning. Even though each university including Universiti Teknologi MARA (UiTM) has provided her own learning management system (LMS) to cater for the instructional needs beyond the classroom, students still showed their preference on using blog and digital forum as their supplementary online writing tools as reported in a study conducted by Mah and Khor (2015) on the writing needs inside and outside the classroom. Besides, they also valued the theoretical and pedagogical inputs from the instructional tool’s content, user (instructor), and peers (Mah & Khor, 2015). In addition, a study conducted in UiTM Penang Branch on the students’ readiness in using web-based resources shows the instructors were

believed to offer more comprehensive elucidations through the reference of myriad web-based resources (Peridah Bahari & Salina Hamed, 2008). Web-based Cognitive Writing Instruction (WeCWI) is a hybrid e-framework for the web-based instruction (WBI) development, which aims to bring a positive user experience to the learner by creating an instructional tool with different interface designs besides integrating the fundamental theoretical-and-pedagogical principles to boost up the learner’s language and cognitive developments. WeCWI initiates on producing a 21st century educator by disseminating knowledge and sharing ideas with the in-class and global learners through instructional and technological discoveries. The self-developed WeCWI-enabled instructional tool highlights on the reading, discussion, and writing activities through WeCWI’s pedagogical and theoretical discoveries. Therefore, this study focuses on conducting a

literature review on the application of blog, Blogger, widget, and hypertext to develop a web-based instructional tool grounded on WeCWI.

2 METHODOLOGY

To detect the key concepts of the identified research scope, this study conducted a literature review using comprehensive electronic search via Google Scholar and other research databases on the keywords such as “blog”, “Blogger”, “widget”, and “hyperlink” available from the title and/or abstract of the articles. It is useful for researchers to have a better comprehension on the available gaps and opportunities by outlining the key concepts and detailing the conducts of how specific fields are mapped out, consolidated and evaluated. (Tranfield, Denyer, & Smart, 2003).

3 LITERATURE REVIEW

After identifying the appropriate web version namely web 2.0 as the developing platform (Mah & Suzana Ab Rahim, 2017), this study scrutinised further on the viability of blog as the web 2.0 application, Blogger as the blog host, plus widget and hypertext as both essential on-screen web properties embedded for instructional purposes.

3.1 Blog

Blog was utilised for a wide range of educational purposes a decade ago since it was noticed by educators and applied in their classrooms (Downes, 2004). The inclusion of blogging strategies in the classroom is to improve the students’ learning experience for achieving a deeper level of understanding from the learning process (Bartlett-Bragg, 2003). Nielsen (2005) has highlighted three significant advantages of blog including a web-native content genre, being a part of an ecosystem (blogosphere), and free from web design.

Without possessing the knowledge of HTML or web scripting, blog has a simple interface to make it easy for any user to construct (Chao & Huang, 2007). Hyperlinks, web widgets embedded codes, graphic and multimedia components are all supported properties to enhance the blog’s usability. In addition, the comment box for readers to respond and practice their writing (Chao & Huang, 2007) encourages interaction among learners and between instructor and learners (Yang, 2009). It also offers a greater sense of permanence through monitoring and assessing the learners’ work (Martindale & Wiley, 2005).

Godwin-Jones (2003) has emphasised on the practice of blog in language teaching and learning. Besides using it as an e-learning tool (Stuart, 2005; Yang, 2005) and computer-mediated learning tool (Wang & Fang, 2004), blog can also be utilised as a window on “powerful writing” (Lankshear & Knobel, 2003). For instance, as shown in Figure 6, blog-integrated writing instruction was created for improving English writing in the Chinese tertiary EFL classrooms in

three stages of writing process: preparation, writing and revision (Qi-yuan, 2013).

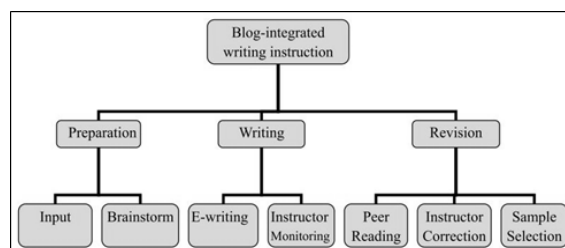


Figure 1. Blog-integrated writing instruction

(Azizinezhad & Hashemi, 2011).

Based on the findings of study, the “trigger function” of blog greatly increases the students’ linguistic output as well as their teamwork. In addition, blogs were also used in teaching and learning translation based on a study conducted by Azizinezhad and Hashemi (2011). Those students were reported to have had positive and enthusiastic experiences in using the classroom blogs. Therefore, to maximise the pedagogical potentials of the Internet as well as to facilitate language and cognitive developments, blog is the most appropriate web 2.0 tool to be developed as the instructional tool of WeCWI.

3.2 Blogger

According to McBride and Cason (2006), there were no recognised blogs in 1996. Until 1999, Pitas.com, GrokSoup, and Pyra Labs became the first online blogging tool (Risdaul, 2006); then, Blogger.com was born in August 1999 founded by Evan Williams, Paul Bausch, and Meg Hourihan (Jensen, 2003). In 2003, Google purchased Pyra Labs. During Google-owned phase, the instructional tools hosted by Blogger has come up with the most important credit—the blog hosting service, Blogspot, on the vast network of server computers has made the instructional tools even more reliable and robust (Gillmor, 2003).

As recommended by Walter (2004), Blogger as one of the early entrants into online blog hosting provides free server space, a naming convention, and click-and-pick templates that make a blog development a matter of minutes. Blogspot is a free blog hosting service run by the Blogger team. There is no code, scripts, software, and server to install and configure the blogs. Furthermore, there is no need for the administrator to install any updates, security releases, backup plan, and migration of server as compared to self-hosting, web server or web hosting account which is required.

The administrator has the total control over the look, name of the blog, as well as the access by logging in to the service and publishing to the web instantly. Owing to its great extent of adaptability, Blogger

allows a diverse range of pedagogical features and instructional tasks to be designed by the language instructor (Murray & Hourigan, 2008). Thus, the blogs enjoy massive design flexibility, operating capacity, and technical compatibility with a wide range of web browsers and operating systems offered by Blogger (Google, 2012a, 2012b) as demonstrated in Table 1 and Table 2.

Aspect	Capacity
Number of Blogs	100 blogs per account
Number of Posts	unlimited
Size of Posts	unlimited
Size of Pages	1 MB in size (a few hundred pages of text)
Number of Comments	unlimited
Number of Pictures:	1 GB
Size of Pictures	250K per picture through Blogger Mobile
Team Members	100 members
Number of Labels	Maximise to 2000 unique labels per blog and 20 labels per post.
Blog Description	500 characters without HTML
Profile Information	1200 characters
Profile Interests and Favourites	2000 characters in each field

Table 1: Capacity of Blogger as the Blog Host of WeCWI Instructional Tools

Web Browser	Windows XP/7	Linux (Ubuntu)	MAC OSX 10.4 +	Mac OSX 10.3.9 and below
Google Chrome	X	X	X	X
Safari 4 +			X	X
Internet Explorer 8	X			
Internet Explorer 9	X			
Firefox 3.6 +	X	X	X	

Table 2: Compatibility of Browsers and Operating Systems with the WeCWI Instructional Tools

3.3 Web Widgets

According to Chen (2009), proper use of widgets aids the blog content to be more organised and easily navigated; for instance, the presence of the Instant Messenger on a blog enables the site visitors to hold a live interaction. (Wilson, Sharples, & Griffiths, 2007). Nevertheless, Fiaidhi (2011) has reminded that running any widget requires the activation of the web browser. Besides their dependency on the web browser, Fiaidhi lists down five risks associated with adopting widgets for learning objects as follows:

1. Not all web browsers support scripts, in which users may experience errors;
2. Different web browsers and browser versions support scripts differently;

3. If the scripts are not already available through other resources, more development time and effort might be required;
4. An ill-functioning web widget may result in usage problems; and
5. *W3C Widget 1.0, Widgetbox, Spring Widget, Yahoo Widgets, Microsoft Windows Live Widgets* and *Google Gadgets* are some of the many widget standards and languages made available.

3.4 Hypertext

Hypertext has been defined by Landow, a professor of English and art history from Brown University, as texts composed of blocks of text or a “lexia” and the electronic links accompanying them (Landow, 1992). By using hypertext, the information is no longer presented in the usual linear form but it is broken down into many smaller units or lexias, with each addressing a few issues (St. Laurent, 1992). Hypertext links one passage of verbal discourse to images, maps, diagrams, and sound as easily as to another verbal passage. A passage of verbal discourse can be easily linked via hypertexts to images, maps, diagrams, and sound. By doing so, the notion of text is thus expanded rather than just confined to being verbal.

Therefore, it should be noted that a hypertext can easily indicate an information medium linking verbal and nonverbal information (Landow, 1992). According to Cheng (2012), the basic linking idiom in HTML is tag <a> that acts as hypertext links for the users to access specific locations on web page and work with all technologies and platforms. Users can access them either directly or using JavaScript and CSS to increase the interactivity of hypertext. Nonetheless, the web designers cannot make the hypertext link flexible because there are no decision-making capabilities in HTML (Cheng, 2012).

4 CONCLUSION

Blogger is opted for since its interface design can be modified by the blog owner through the on-screen layout editing feature. Blogger is supportive of many third-party web widgets. The web widgets can be effortlessly embedded by copying the given chunk of codes (HTML or JavaScript) and pasting them in the box named “Add a Gadget” in the on-screen layout editing platform. The same process happens to hypertext whereby it can be published on the specific area of the blog through copying and pasting processes in the “Add a Gadget” box. The web widget or hypertext can be also edited and removed by clicking on “Edit” in the bottom right corner of the box. With customisable layout editing, the blog interface can be embedded with web widgets and hypertext sharing the identical features at the fixed positions.

Observing the relationship between perceptual learning preferences based on the type of preferentially perceived information (Felder & Silverman, 1988) and the visual representations in

iconic and symbolic views based on Bruner's theory (Bruner, 1966), the blogs come with two different user interfaces embedded with web widgets or hypertext. The blog with web widgets appears in a graphical form of iconic view, which share the referring objects' representational properties stored visually in the form of mental picture. However, the blog with hypertext only displays textual form of symbolic view without involving the visual references. Through a word coding, it opens an individual imagination from being controlled by a stimulus' appearance constraint of the "here & now" concept, which provides a more multifaceted yet flexible cognition. Therefore, iconic and symbolic visual representations can be applied in the design of two blogs' user interfaces to engage the learners with opposing types of perceptual learning preferences: sensing versus intuitive.

5 REFERENCES

- Azizinezhad, M., & Hashemi, M. (2011). The use of blogs in teaching and learning translation. *Procedia - Social and Behavioral Sciences*, 28, 867–871.
- Bartlett-Bragg, A. (2003). Blogging to learn. *The Knowledge Tree*, 4. Retrieved from http://www.csus.edu/indiv/s/stonerm/blogging_to_learn.pdf
- Bruner, J. S. (1966). *Toward a theory of instruction* (Vol. 59). United States of America: Harvard University Press.
- Chao, Y. C. J., & Huang, C. K. (2007). The effectiveness of computer-mediated communication on enhancing writing process and writing outcomes: The implementation of blog and wiki in the EFL writing class in Taiwan. In C. Montgomerie & J. Seale (Eds.), *World Conference on Educational Multimedia, Hypermedia and Telecommunications 2007* (pp. 3463–3468). Vancouver: AACE.
- Chen, S. (2009). Can blogging help cataloging? Using a blog and other Web 2.0 tools to enhance cataloging section activities. *Library Resources & Technical Services*, 53(4), 251–260.
- Cheng, W. C. (2012). Enhance the interactivity of hypertext links in HTML. *Journal of Engineering Technology and Education*, 9(2), 122–127. Retrieved from <http://www.engh.kuas.edu.tw/files/ne/ebubs58jib.pdf>
- Downes, S. (2004). Educational blogging. *Educause Review*, 39(5). Retrieved from <http://net.educause.edu/ir/library/pdf/erm0450.pdf>
- Felder, R. M., & Silverman, L. K. (1988). Learning and teaching styles in engineering education. *Engineering Education*, 78(7), 674–681. Retrieved from <http://www4.ncsu.edu/unity/lockers/users/f/felder/public/Papers/LS-1988.pdf>
- Fiaidhi, J. (2011). Towards developing installable e-Learning objects utilizing the emerging technologies in calm computing and ubiquitous learning. *International Journal of U- and e-Service, Science and Technology*, 4(1). Retrieved from http://www.sersc.org/journals/IJUNESST/vol4_no1/2.pdf
- Gillmor, D. (2003). Google buys Pyra: Blogging goes big-time. *EJournal: News, Views and a Silicon Valley Diary*. Retrieved from <http://web.archive.org/web/20031008161432/http://weblog.siliconvalley.com/column/dangillmor/archives/000802.shtml>
- Godwin-Jones, R. (2003). Blogs and wikis: Environments for on-line collaboration. *Language Learning & Technology*, 7(2), 12–16. Retrieved from <http://llt.msu.edu/vol7num2/emerging/default.html>
- Google. (2012a). Blogger and browser compatibility - Blogger Help. Retrieved July 16, 2013, from <http://support.google.com/blogger/bin/answer.py?hl=en&answer=42247&topic=12507&ctx=topic>
- Google. (2012b). What are the limits on my Blogger account? - Blogger Help. Retrieved July 16, 2013, from <http://support.google.com/blogger/bin/answer.py?hl=en&answer=42348>
- Jensen, M. (2003). A brief history of weblogs. *Columbia Journalism Review*, 42(3), 22.
- Landow, G. P. (1992). The definition of hypertext and its history as a concept. Retrieved from <http://www.cyberartsweb.org/cpace/ht/jhup/history.html#1>
- Lankshear, C., & Knobel, M. (2003). Do-It-Yourself broadcasting: Writing weblogs in a knowledge society. In *Annual Meeting of the American Educational Research Association 2003*. Chicago: American Educational Research Association.
- Mah, B. Y., & Khor, G. S. (2015). Poor Writing Skill among UiTM Students: A Qualitative Systematic Review of Literature on SIL's Learner Domain. In *UPALS Language Colloquium 2015 e-Proceedings* (pp. 23–34). Penang, Malaysia: Universiti Teknologi MARA (UiTM) Penang Branch.
- Mah, B. Y., & Suzana Ab Rahim. (2017). The Platform Development of WeCWI Instructional Tool: A Comparative Systematic Review. In *UPALS Language Colloquium 2017 Proceedings* (pp. 48–57). Penang, Malaysia: Universiti Teknologi MARA Penang Branch.

- Martindale, T., & Wiley, D. A. (2005). Using weblogs in scholarship and teaching. *TechTrends*, 49(2), 55–61.
- McBride, N., & Cason, J. (2006). *Teach yourself blogging*. United Kingdom: Hodder Education.
- Murray, L., & Hourigan, T. (2008). Blogs for specific purposes: Expressivist or socio-cognitivist approach? *ReCALL*, 20(01), 82–97.
- Nielsen, J. (2005). Weblog usability: The top ten design mistakes. Retrieved April 25, 2014, from <http://www.nngroup.com/articles/weblog-usability-top-ten-mistakes/>
- Peridah Bahari, & Salina Hamed. (2008). Students' view on using web-based resources in learning: Qualitative study. *ESTEEM Akademic Journal*, 4, 119–131.
- Qi-yuan, S. (2013). Use of blog to improve English writing in the Chinese tertiary EFL classrooms. *English Language Teaching*, 6(10), 51.
- Risdahl, A. S. (2006). *The everything blogging book*. Avon: Adams Media.
- St. Laurent, S. (1992). Hypertext and history. Retrieved July 23, 2013, from <http://www.simonstl.com/articles/hypehist.htm>
- Stuart, G. (2005). Instructional blogging: Promoting interactivity, student-centered learning, and peer input. *Innovate*, 1(5).
- Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British Journal of Management*, 14, 207–222. Retrieved from <http://www.cebma.org/wp-content/uploads/Tranfield-et-al-Towards-a-Methodology-for-Developing-Evidence-Informed-Management.pdf>
- Walter, M. (2004). *Blogs: A new tool for instruction*. Salem. Retrieved from <http://surfaquarium.com/Blogs.pdf>
- Wang, J., & Fang, Y. (2004). Benefits of cooperative learning in weblog networks. *ERIC Database*.
- WeCWI Integrated Solutions. (2019). WeCWI integrated solutions: Design to innovate. Retrieved from <https://www.wecwi.com>
- Wilson, S., Sharples, P., & Griffiths, D. (2007). Extending IMS learning design services using widgets: Initial findings and proposed architecture. In *Proceedings of the 3rd TENCompetence Open Workshop on Current Research on IMS Learning Design and Lifelong Competence Development Infrastructures*. Retrieved from <http://hdl.handle.net/1820/963>
- Yang, J. C., Ko, H. W., & Chung, I. L. (2005). Web-based interactive writing environment: Development and evaluation. *Educational Technology & Society*, 8, 214–229. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.97.3012&rep=rep1&type=pdf>
- Yang, S.-H. (2009). Using blog to enhance critical reflection and community of practice. *Educational Technology & Society*, 12(2), 11–21. Retrieved from http://www.ifets.info/journals/12_2/2.pdf