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Being Self-Directed through My Electronic
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Abstract

This paper details the findings of a research study in the realm of Web 2.0 technologies, employed for the creation of a language ePortfolio as a contemporary web-based environment that can make a difference in informal, adult, self-directed language learning. Heuristic evaluation methods have been employed in an attempt to evaluate the designed Web 2.0 based language portfolio in terms of the learning activities it comprises and the extent to which the latter can foster the development of self-direction in learning the English language. The results revealed that the proposed Web 2.0 based language portfolio was convincingly successful. This paper also provides practical implications and recommendations for further research, envisaged to assist future researchers focus their research design and further comprehend how to bolster the development of self-directed language learning.

Key words: *self-directed language learning, language portfolio, Web 2.0.*

1. Introduction

The globalization of economies has heightened the importance of entrepreneurial action for creating wealth (Hitt, Ireland, Camp, & Sexton, 2001). Communication is a prerequisite for the growth of entrepreneurship. Entrepreneurs need to acquire and use natural language to communicate productively so as to bring about change. Mutual understanding among citizens of different linguistic backgrounds can only be achieved by using a common medium for communication (Dombi, 2011).

The spread of English as a lingua franca for economic, scientific, and political exchange and the need of individuals to learn and acquire new skills and competences not only in the traditional setting of the classroom (formal learning) but more and more outside it (informal learning) (EurLex, 2012) is indicative of coral attention to the facilitative role of technology at the service of dynamicity of competence (Alemi & Daftarifard, 2010). A crucial technological application in the field of English as a Foreign/Second Language (EFL/ESL), ePortfolios encourage learners to have ownership and responsibility for their own learning (Hewitt, 1994). Nevertheless, the research community experience of informal, self-directed language learning with this digital device still remains largely unexplored.

Capitalizing on the enthusiasm for developing the potential of Web 2.0 technologies,

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and considering the significance of encouraging learner control over the learning process (Dron, 2007), this paper introduces the implementation of a Web 2.0 based language Portfolio through a course delivered online. The intention is to make evident that an ePortfolio can serve as a vehicle for enhancing self-directed language learning in adult English language learners taking place in informal educational settings.

2. Literature Review

2.1 Self-directed learning as a 21st century skill

Self-directed learning (SDL) has been addressed by different authors as the pillar for professional development and lifelong learning (Knowles, 1975). It involves being able to use one's own competences and resources to strategically formulate goals, to organize and structure information and to build knowledge that is meaningful to one's aims (Boekaerts, & Pintrich, 2000). Gibbons (2002) stresses the importance of developing ownership of learning as it motivates a learner to pursue a learning goal and persist in the learning process. Based on Gibbons' (2002) perspective, SDL entails three important aspects (Chee, Divaharan, Tan, & Mun, 2011):

- **Ownership of learning:** Learners who take personal responsibility in learning have ownership of their learning, set learning goals, and accept the consequences of their thoughts and actions (Brockett & Hiemstra, 1991).
- **Self-management & Self-monitoring:** The term self-management describes the aspect of behavioral task control related to the management of learning activities (Candy, 1991; Garrison, 1997). Self-monitoring is defined as the internal cognitive dimension relating to learner's thinking and monitoring of learning (Garrison, 1997).
- **Extension of learning:** The idea of SDL is extended from an instructional setting to an informal, non-institutional, everyday setting (Candy, 1991).

2.2 ePortfolios

The European Institute for E-Learning (EifEL) argues that ePortfolio is a digital collection of information that illustrates aspects of learning, career, social activities and achievements of the individuals (Slaatto, 2005). A comprehensive description of the major ePortfolio purposes (*assessment, presentation, learning, personal development, multiple owner, working portfolios*) is provided by the IMS Global Learning Consortium (IMS, 2005). However, when it comes to language learning, it is customary to distinguish between two basic types of portfolios: (i) the *process-oriented learning* portfolios, which include various kinds of process-related materials and (ii) the *product-oriented reporting* portfolios, used to document language learning outcomes for a variety of purposes (Kohonen, 1999).

Stefani, Mason, & Pegler (2007) provide a comprehensive classification of the plethora of tools used for the development of ePortfolios, distinguishing among four

types of systems currently being used: (a) *commercial software*; (b) *proprietary systems*; (c) *open source ePortfolio software* and (d) *open source common tools*.

2.3 Self-direction in language portfolios

Language portfolios can perform a powerful pedagogical function in encouraging further language study, learner autonomy and the development of self-direction. They offer concrete evidence of achievement and build confidence in one's ability. As is the case for other mechanisms to encourage autonomous language learning, the use of language portfolios works best if separated both from an educational setting and a proprietary platform, so that they can be seen as personal documents and used long after schooling has been completed (Godwin & Jones, 2011).

3. Selecting the tool for ePortfolio implementation

3.1 My Electronic Language Portfolio: Tool selection

Wordpress is an open-source, fully-fledged content management system (CMS), whose core software, documentation and code are created by community volunteers. The imminent advantages associated with its use entail intuitiveness, flexibility, ease of customization, extensibility, no need for programming knowledge, community support, no proprietary licensing fees, security, and its being Search Engine Optimization (SEO) friendly (Reyes, 2009).

Intensive consideration for the above-mentioned benefits of Wordpress as a CMS has guided the ePortfolio tool adoption process and the creation of the Web 2.0 based language portfolio presented within the context of this paper. In Figure 1, the ePortfolio architecture is depicted.

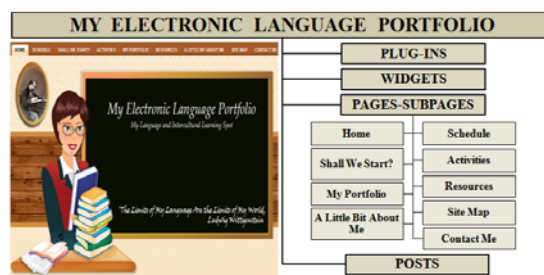


Figure 1: 'My Electronic Language Portfolio' architecture

3.2 My Electronic Language Portfolio: Designing the learning activities

The proposed Web 2.0 based language portfolio was created with a twofold purpose in mind. In the first place, it is intended to prompt adult learners to synthesize their individual language ePortfolio, comprising three parts, namely the: (a) *Language Passport*, (b) *Language Biography*, and (c) *Dossier*, akin to the parts of the European

Language Portfolio, developed by the Council of Europe, and launched in 2001. Concomitantly, it is expected to gauge learners' interest in assembling their language portfolio in a self-directed manner.

The twelve learning activities included in 'My Electronic Language Portfolio' were, thus, selected in the light of enabling learners to keep track of their learning as it happens and record their language learning achievements through assembling their language ePortfolio. The ePortfolio content creation process was further facilitated by adopting Gibbons' (2002) proposed SDL phases to serve as the theoretical background (see Figure 2). The intention was to foster learners' becoming increasingly self-directed towards learning the English language by means of assuming responsibility over their language learning, reflecting on their English language competence obtained both in formal and informal educational settings, identifying their strengths and weaknesses in learning English as a Second/Foreign language (EFL/ESL) and setting future language learning goals. The development of learners' self-directed learning skills is gradually achieved while moving from one learning activity to the other.

To guide 'My Electronic Language Portfolio' users through its intricate information architecture, links were embedded at the end of each activity. Users are also induced to attempt each activity in a linear order.

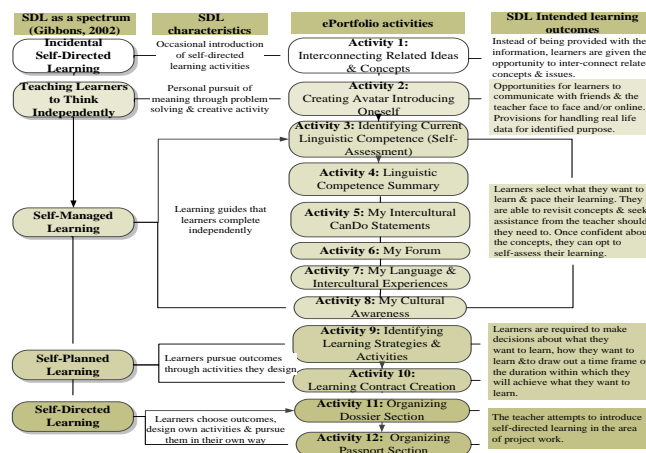


Figure 2: Language ePortfolio learning activities

4. Method

4.1 Research question

This study sheds light into the way adult learners' self-directed skills in terms of learning the English language can be enhanced through a Web 2.0 based language

portfolio. A group of evaluators have been summoned to evaluate the designed ePortfolio in terms of whether its content can promote self-direction in language learning. In this framework, this study addresses the question: *“Which are the evaluators’ views on the activities encompassed in the ‘Electronic Language Portfolio’ in support of promoting self-direction in language learning?”*

4.2 Research method

Heuristic evaluation relies on experts to predict problems that potential users will have with a system, by comparing the system against a set of recognized usability principles, the heuristics. Traditionally, the term is used to describe the method as introduced by Nielsen & Molich (1990) for use with their own set of usability guidelines. In this paper, the term shall be employed to refer to evaluation against other sets of guidelines that pertain to usability.

4.3 Evaluators

A total of five evaluators (eLearning experts) evaluated the usability of ‘My Electronic Language Portfolio’ against the list of guidelines to follow.

4.4 Indicators and usability heuristics

Three indicators, related to the usability of ‘My Electronic Language Portfolio’ as regards self-directed language learning, have been employed to evaluate the designed webpage. These indicators pertain to the following heuristics: (a) Ownership of learning, (b) Self-management & Self-monitoring, (c) Extension of learning.

4.5 Research instrument

The theoretical ideas on the ownership of learning, self-management and self-monitoring and extension of learning are acknowledged to be more fruitful once translated into potential observable indicators for classroom use. The exemplification of such behavioural indicators allows teachers to monitor whether their students are engaged in self-directed learning and this may impact the planning of instructional strategies (Chee et al., 2011). On these grounds, the questionnaire employed as the research tool to identify the level at which the designed language ePortfolio can serve as a useful tool for enabling prospective users to become self-directed towards learning a language, has been based on such observable indicators. It consists of 17 closed-ended, Likert statements, each offering five response options.

4.6 Experimental procedure

The experimental procedure took place in two phases. The onset of the first phase coincided with evaluators receiving contextual information on the intended user group as well as the principal features of ‘My Electronic Language Portfolio’. The evaluators received orientation towards the ePortfolio creation process through a user

manual. They, then, got acquainted with the portfolio concept through a set of pages and subpages contained within the portfolio. In the course of the second phase of the experimental procedure, each evaluator investigated the language ePortfolio's true potential by attempting all activities suggested. Online administrator-tutor support was available in case needed. The experimental procedure ran for a two-week period. Upon its completion a questionnaire was e-mailed to the evaluators.

4.7 Findings and discussion

The data analysis was quantitative, derived from the usage of the statistical software package SPSS. For the results of the analysis to be manifested, three different variables were created, each of which represents a total score for every indicator. All these variables may receive values ranging from 1 (poor usability) to 5 (great usability). Descriptive analysis was used to identify the mean values, standard deviations as well as the minimum and maximum values for each variable.

In Table 1, the results regarding the self-direction in language learning indicators are illustrated. As depicted, all three indicators have mean scores at least equal to 4, indicating evaluators' overall satisfaction.

Table 1: Descriptive analysis for self-directed language learning usability indicators

		N		Mean	Std. Deviation	Min.	Max.
		Valid	Missing				
1.	Ownership of Learning	5	0	4,440	,4335	4,000	5,000
2.	Self-Management & Self-Monitoring	5	0	4,083	,5773	3,750	4,750
3.	Extension of Learning	5	0	4,600	,2850	4,250	5,000

In more detail, the mean score for the first indicator (Ownership of learning) equals to 4,44. This indicator refers to the learning activities encompassed in 'My Electronic Language Portfolio' and the extent to which the latter helps its users assume responsibility for their language learning, articulate their language learning goals, set standards for the achievement of such goals, or chart language learning processes.

As regards the second indicator (Self-management & Self-monitoring), the mean score gathered is about 0.5 less than the mean score of the other two variables, suggesting that some improvement may be needed. The indicator in question is related to the extent to which the learning activities comprised in the ePortfolio can help potential users identify their language learning needs, select the best method for their language learning according to their individual learning style or critically reflect

on it.

Finally, the third indicator (Extension of learning) gathers the highest mean score, equaling to 4,60. The specification of the extent to which activities encompassed in 'My Electronic Language Portfolio' help the application of what is learnt to new contexts, and the enhancement of future independent language learning is being attempted through this indicator.

In agreement with the results presented it could be stated that with respect to the research question, posed within the context of this study, the evaluators have agreed that the usability of the Web 2.0 based language portfolio is solid.

4.8 Future work

The essence of the present study lies in the exploitation of Web 2.0 technologies to enhance the self-directed language learning skills of adult learners. For this matter, a Web 2.0 based language portfolio has been designed and subjected to heuristic evaluation. What is left to be seen is to have its effectiveness tested by actual participants who will try it and decide upon its perceived usefulness. In terms of further work, it is also recognized that the incorporation of learning activities focusing on individuals' ability to turn ideas into action, include creativity, innovation, show initiative and risk-taking could immensely enhance the entrepreneurship skills of the citizens of the globalized world.

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