

## **Developing Chinese Students' Reflective Second Language Learning Skills in Higher Education**

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### **Abstract**

Reflection has been increasingly recognised as integral to effective learning. Journal writing is advocated for facilitating reflection, and several frameworks are propounded for categorizing reflective proficiency, mostly in the professional domains, but rarely in second language education. The paper, therefore, discusses the results of an ongoing study where a two-dimensional four-level framework was developed for monitoring and determining reflective second language learning skills by analyzing Chinese university students' written journal entries. Four raters evaluated sixteen written journals independently for evidence of reflection on specified areas of second language learning using the proposed framework. The raters provided input from three perspectives: that of teacher, researcher, and student. Analysis of the results suggests that the framework can be a valuable tool in measuring reflective second language learning capacities with appropriate support and further systematic research.

**Keywords:** second language learning, reflection, learning in higher education

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### **1. Introduction**

Students of the 21st century are likely to graduate into a world that moves quickly and unpredictably, requiring the need to work collaboratively and to become adept at rapid innovation in response to a highly competitive market. A key challenge for educators is, thus, to develop strategies and facilities which support the examination and evaluation of the teaching and learning process to deal with changes. A strategy that has attracted considerable attention is reflective practice. Donald Schon (1983) conceptualizes 'reflection' in terms of a constantly changing world where change yields benefits. Research suggests that systematic reflection on experiences can generate multiple gains: addressing changes as a method, interrogating and

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understanding one's behaviours and motivations, and increasing one's confidence and competence (Newton, 2000; Thorpe, 2004). Recognition of the value of reflection in higher education is manifested in a curricular shift to greater focus on fostering reflective practice amongst learners.

The curricula for English as a second language (hereafter, L2) are a case in point. The current literature on L2 development has documented significant efforts in investigating the process of journal writing as one of the several strategies aimed at developing reflection (Burke & Dunn, 2006; Nunes, 2004). Reflective journal writing is found to provide a space for learners to examine their L2 learning experiences, and to explore and evaluate the cognitive and socio-affective aspects of L2 learning. As a tool of empowerment, reflective writing is shown to facilitate the process of change and transition, enabling learners to adjust their approaches and perspectives over the course of their study, thereby generating narratives of their own experiences and development (Burke & Dunn, 2006; McGivern & Thompson, 2004).

Educators, however, expressed several caveats about reflection. Failure to consider ethical issues adequately, such as disclosure of learner identity when reviewing reflective journals, may place learners in a vulnerable situation (Thorpe, 2004). Another concern involves the context of maintaining reflective journals for assessment purposes that may inadvertently encourage learners to conform to assessment criteria and standards, where the perceived need to produce embellished reflective accounts may take precedence over that of frank critiques of the underlying issues (Korthagen & Vasalos, 2005). The lack of consensus regarding terms, concepts, frameworks, and implementation strategies relating to reflection inevitably leads to misunderstanding and misinterpretation, thus circumscribing the effectiveness and pedagogy of reflection (Loughran, 2002).

One critical concern about reflection is how to evaluate reflective practice. To teachers, being able to assess students' reflective capacity is the key to providing appropriate feedback so that students may know where to improve. This issue is well addressed by developing a multi-level scheme to measure students' level of reflection in some professions such as teaching, nursing, and medicine (Kember et al., 1999; Orland-Barak, 2005; Wallman, Lindblad, Hall, Lundmark & Ring, 2008). There is, nevertheless, limited research that targets the design of a scheme for categorizing reflective L2 learning skills. This study, therefore, aims to fill the gap in the literature by developing a framework to measure Chinese university students' reflective L2 proficiency by interpreting their written journals, and by evaluating the effect of the framework on L2 learning.

The paper comprises seven sections. Following the introduction, the theoretical background for the study will be presented, covering the key principles underpinning reflective learning, the connections between reflective writing and L2 learning, and the critiques and gaps relating to reflective L2 learning. The paper will then sketch out the context of the study, methods, data collection, followed by the description and discussion of the results.

## **2. Theoretical Background**

### *2.1 Reflective Learning*

The terms 'reflection' and 'reflective practice' have become commonplace in the literature, but their definition seems to vary greatly. Typically, 'reflection' refers to the mental process that facilitates the transformation of experience into personal knowledge by acting as a conduit between the emotional and cognitive states (Boyd & Fales, 1983; Pierson, 1998; Yancey, 1998).

John Dewey (1938), the widely accepted originator of reflective learning, argued that people do not so much learn from experience as they learn from reflecting on experience. The term 'reflection' emanates principally from the socio-constructivist concept of learning to denote revision of one's goals or work. This involves self-assessment of learning to identify the gap among intention, accomplishment, and strategies for accomplishing learning outcomes (Yancey, 1998).

Hence, reflection is goal-oriented, sequential, active, and controlled by the learner who desires to learn, to find a solution to a problem, or to clarify an ambiguous process (Dewey, 1960). This is contingent upon a dialogue among several perspectives, as the learner contrasts the believed and the known with presuppositions and necessary conclusions. Dewey added that reflection is language-specific, and that language connects and organizes meanings as well as selects and fixes them. He urged educators to expand learners' language, used primarily for practical and social ends, into a conscious tool of conveying knowledge and assisting thought. Drawing on multiple sources, Jones and Shelton (2006) describe reflection as:

[T]he practice of intentionally bringing into conscious awareness one's motivations, thoughts, beliefs...and expectations for the purpose of gaining insightful understanding as to their meaning, their connections to what is personally known, and in light of new experiences and information. Reflection makes possible the insights necessary to learn from experience and alter habitual behaviours (p.53).

A key benefit of reflection lies in its potential to provide learners with insights into the development of knowledge and thought processes (Yancey, 1998). Encouraging learners to reflect in multiple ways is 'inviting them to triangulate their own truths, to understand and articulate the pluralism of truth' (p.19). Through reflection, learners can see multiple perspectives in multiple contexts and realize that as a social process, reflection requires situatedness, reply, and engagement.

Another benefit focuses on reflection as a means of establishing the intersection among the three curricula in school: the lived curriculum (learners' product of learning), the delivered curriculum (the planned curriculum, outlined by the syllabi, supported by materials and activities), and the experienced curriculum (different experiences offered to learners) (Yancey, 1998). Such triple curricular experience nurtures two components – retrospection (to look back) and projection (to move forward) – that are vital for growth. This position finds close parallels with Welsh and Dehler's (2004) view of reflection being 'a dialectical process requiring both an inward look at our thoughts and thought processes and an outward view of the situation' (p.18), a point to be elaborated in the next section.

## *2.2 Reflective Writing and L2 Learning*

The concept that writing is a mode of L2 learning and affects L2 learning is relevant to the study. Reflective writing not only represents the repository of reflective thinking, but also serves as an indicator of the writer's L2 ability (Hyland, 2003; Scott 2005). Insights can be drawn from a recent study (Chau, 2010) involving non-native university students in Hong Kong who were asked to write about their English language (L2) learning experiences in English in a portfolio over a full semester of 14 weeks. Analysis of their writing revealed that the students displayed skills associated with reflective thinking through selecting what to discuss, citing reasons,

showing awareness of external influences on their L2 learning motivations, and pursuing new courses of action.

The same study (Chau, 2010) also offered evidence of a consistent picture of the students' general goodwill and ability to engage with reflective writing. In most respects, the students' reflective comments correlated closely with the fundamental components of reflection: a language-specific, goal-directed, dialectical process controlled by the learner with a desire to tackle a dilemma, which may entail goal revision and transformation of experience into personal knowledge through inward and outward scrutiny (Dewey, 1938, 1960; Welsh & Dehler, 2004; Yancey, 1998). Reflection is dialectical because the students accustomed to operating within an institutionalized structure might need time to find confidence in adjusting to the novel concept of writing for purposes other than assessment grades. It is also seen as an inward look at thoughts and thought processes because internalized experiences at this point were only privy to the owner – student. Additionally, reflection is an outward view of the situation because externalizing internalized thoughts required making judgments on what had happened and evaluating the social factors at play, contributing to the development of new strategies for the future.

The above study indicated that the students saw reflective writing as a heuristic device for self-study, record, and time management to organize and apply experience. This perspective intersects with Hillocks' (1995) multiple-self theory in writing in important ways. He posits a distinction between the writing and reading self, and the generation of a third, fourth or fifth self to 'pull together, in meaningful ways, bits and pieces of one's experience that they may never have been conjoined before' (p.7). To Hillocks, writing shifts or adds to the way in which the self places himself or herself in relationship to the experience, a process responsible for the remaking of the self. This remaking entails the writer to 'formulate and reformulate meanings and relationships, engaging in a wide range of inquiry' (p.15), where inquiry suggests a process of critical reflection.

### *2.3 Categorizing Reflective L2 Learning Skills: Critiques and Gaps*

Despite the well-documented virtues of reflective learning in the literature, the incorporation of reflective pedagogy into the curricula is not without its critiques, some of which were discussed earlier in the paper. One noteworthy concern points to the increasing ubiquity of reflection that may turn it into a mantra, where practices mimic rather than genuinely induce reflection (Clegg, 2004). Orland-Barak (2005) also cautions against reflection being trivialized if such an intellectual enterprise is reduced to a checklist of behaviours. Educators are urged to confront the difficulties of reflection itself as a way of addressing the concern (Clegg, 2004). An oft-cited difficulty pertains to the measurement of reflective learning, because reflection is essentially an intangible or unobservable skill that cannot be assessed directly. More importantly, the evolving nature of the reflective process means that learning goals, which should ideally emerge from or be revised during the process, can hardly be pre-determined as criteria against which to evaluate learning achievement (Wallman et al., 2008).

Several mechanisms, including the use of reflective portfolios and written journals, are advocated in capturing and categorizing the reflection process. Research generally supports the use of written journals and relevant classification schemes as a reliable measurement tool for reflective proficiency (Plack, Driscoll, Blissett, McKenna & Plack, 2005). Kember et al. (1999), for example, proposed a seven-category framework for classifying reflective thinking, based on

Mezirow's (1991) earlier coding scheme. The seven categories distinguished non-reflectors (categories 1-3) from reflectors (categories 4-7), where the former was characterized by 'habitual action', 'introspection' and 'thoughtful action', while the latter encompassed 'content reflection', 'process reflection', 'content and process reflection' and 'premise reflection'. Wallman et al. (2008) removed the 'content and process reflection' category from Kember et al.'s seven-category framework, turning it into a six-level hierarchical system to evaluate students' reflective essays.

While the above-mentioned methods focus primarily on the components of the reflective process by examining students' written journals, others highlight the importance of understanding the stages of reflection (Boud, Keogh & Walker, 1985), and the temporal dimension (Schon, 1987). Bourner (2003) advised separating the reflection content from the process of reflection to reduce the impact of the subjective nature of content on evaluation, a view supported by Wallman et al. (2008), who saw the necessity to differentiate measuring students' reflective proficiency from their ability to express thoughts in written form. They further warned that 'students can probably be reflective in their work and have a reflective thinking process, but might not be able to formulate this in a short written essay. Some students may also have a resistance towards writing this kind of assignment regardless of their levels of reflection' (p.6). Equally worth noting is what Yancey (1998, p. 81) called the 'shmooz' phenomenon when students write what the teacher wants to read or see, thus defeating the purpose of reflection.

The preceding sections have examined some of the categorization systems to determine reflective abilities, most of which are tested and adopted in various domains of professional education, particularly in teacher education, nursing, and medicine. In L2 education, by contrast, the mechanisms for monitoring or promoting learners' reflective L2 competence remain unexplored. Although Sparks-Langer, Simmons and Pasch (1990) devised a seven-level reflective structure according to the type of language students used in their journals, their suggestion was criticized as deviating from the conventional models of reflection by giving undue emphasis to the structure of linguistic discourse (Kember et al., 1999). Similarly, Orland-Barak's (2005) four-level classification scheme to define reflective proficiency based on students' language use in journal writing targeted teacher, not L2 development.

As reflection has been increasingly accepted as integral to effective L2 learning for non-native speakers (Hyland, 2003), but seldom systematically researched for quality or efficacy, it is necessary and desirable to develop a classification system that could be applied consistently, with well-defined definitions of each category or level which could provide sufficient detail to encourage L2 learners or teachers to monitor reflective skills for language improvement. Framed in this context, the study comprises two parts:

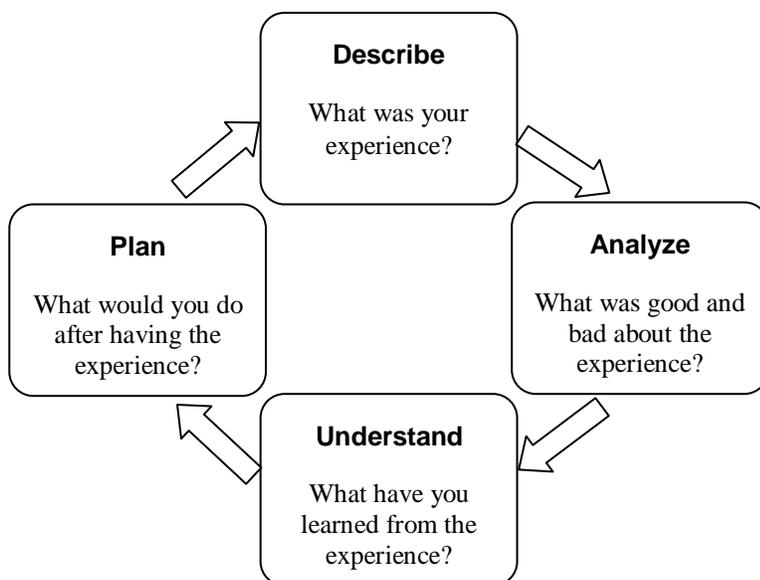
- Part I aims to devise a two-dimensional four-level framework for classifying and monitoring reflective L2 learning skills. This part is completed, the results of which will be examined in this paper.
- Part II focuses on evaluating the effects of the proposed framework on L2 learning. Work on this part is in progress and will be discussed in a future paper.

### 3. Context

Part I of the study involved examining sixteen reflective journals by a Chinese student, Judy (a pseudonym), at the Hong Kong Polytechnic University (PolyU), who documented and wrote about her English language (L2) experience in an electronic portfolio (ePortfolio) between

October 2009 and March 2010. She was randomly chosen from a group of students using the ePortfolio as a voluntary extra L2 learning tool to improve English proficiency. The ePortfolio is developed by the English Language Centre of the PolyU to promote independent L2 learning among non-native students by encouraging reflection, exploration, and application of effective L2 learning strategies, and self-monitoring of progress and achievement. Students neither receive assessment grades nor earn credit points for their ePortfolio work. The reflective component of the ePortfolio draws students' attention to important events and experiences that have stimulated L2 learning by writing about them. A four-stage model adapted from Boud et al.'s (1985) model is utilized to guide students' through the reflection process (Figure 1).

Figure 1. A Four-stage Model for Guiding Students' Reflection



Judy was paired up with an experienced English tutor at the PolyU whose role was that of cheerleader (i.e. to provide encouragement) and adviser (i.e. to make suggestions for language improvement), but not as a class teacher to grade or assess her work. The purpose of this student-teacher partnership was to allow students to focus on L2 learning experience and to receive scaffolded support where appropriate, gradually increasing their competence and independence. While acknowledging the benefits of working with motivated students like Judy, the tutor experienced difficulty in determining the quality of Judy's reflective entries based on the existing evaluation system and the corresponding descriptors which were, in the tutor's view, far from well-defined (Appendix 1). It became apparent that an accessible and relevant framework specifically for L2 learners to monitor and develop their reflective skills was needed. The growing integration of reflective practice into the L2 curricula at the PolyU lent impetus to the study of designing a classification system to establish whether, and to what level, reflection for L2 learning occurred in journal writing.

#### 4. Methods

Part I of the study was exploratory in design, attempting to develop a two-dimensional scheme where the levels of reflective skills would be linked to corresponding elements of L2 learning. A starting point was a review of the pertinent literature on reflective classification systems. The works of Schon (1983, 1987), Mezirow (1991), Kember et al. (1999), Yancey (1998), Wallman et al. (2008) and Orland-Barak (2005) discussed in previous sections proffered significant insights. Particularly helpful is Orland-Barak's four-level framework which categorizes writing into i) descriptive writing (reporting events or incidents, not regarded as reflection); ii) descriptive reflection (providing reasons based on personal judgment); iii) dialogic reflection (presenting a form of discourse with oneself and exploration of possible reasons); and iv) critical reflection (citing reasons for decisions or events which take account of the broader historical, social, and political contexts). The study also drew from the literature on L2 writing, focusing on issues like theoretical frameworks for communicative competence, writing constructs, rubrics (e.g. Fox, Wesche, Bayliss, Cheng & Turner, 2007; Fulcher & Davidson, 2007; Hyland, 2003) to inform the construction of a classification system.

The above literature review yielded four overlapping elements that are important indicators of effective L2 learning: i) analysis of L2 learning experience and its implications, ii) L2 learning strategy application, iii) influence of 'others' and 'context' on L2 learning, and iv) report of L2 learning events or experiences. Proficient L2 learners are typically marked by their ability to deploy and reformulate a range of meta-cognitive, cognitive and socio-affective strategies (Hsiao & Oxford, 2002), analyse by questioning, diagnosing and evaluating the experience (cf. Johnson, 2001), and reconceptualize their views in relation to the current or future context, or possible consequences for themselves or others (Hyland, 2006). These elements provided the basis for a two-dimensional four-level framework utilised in the study (Table 1).

Table 1. A Four-level Framework for Classifying Reflective L2 Learning Skills

Level of Reflective Skills	Element in Reflective Entry in relation to L2 Learning	Scoring for each level
4.Competent	A4: <input type="checkbox"/> clear ability to <i>analyze</i> , reformulate, and refocus the experience; comprehensive discussion of implications of the experience in the context of <i>future applications</i>	4 points for each element at this level  Subtotal: <input type="checkbox"/>
	S4 : <input type="checkbox"/> critical analysis regarding effectiveness of applied or alternative <i>strategies</i> for language learning	
	E4: <input type="checkbox"/> insightful and constructive comments made about <i>external influences</i> , e.g. circumstances, others' perspectives, on the experience	
	R4: <input type="checkbox"/> detailed and analytical <i>report</i> of significant aspects of events or experiences	
3.Good	A3: <input type="checkbox"/> some ability to <i>analyze</i> , reformulate, and refocus the experience; meaningful discussion of implications of the experience in the context of <i>future applications</i>	3 points for each element at this level  Subtotal: <input type="checkbox"/>
	S3 : <input type="checkbox"/> logical explanation regarding effectiveness of applied or alternative <i>strategies</i> for language learning	
	E3: <input type="checkbox"/> constructive comments made about <i>external influences</i> , e.g. circumstances, others' perspectives, on the experience	
	R3: <input type="checkbox"/> detailed <i>report</i> of significant aspects of events or experiences	

2.Average	A2: <input type="checkbox"/> limited ability to <i>analyze</i> , reformulate, and refocus the experience; some discussion of implications of the experience in the context of <i>future applications</i>	2 points for each element at this level
	S2 : <input type="checkbox"/> relevant discussion regarding choice and/or application of <i>strategies</i> for language learning	
	E2: <input type="checkbox"/> some comments made about <i>external influences</i> , e.g. circumstances, others' perspectives, on the experience	Subtotal: <input type="checkbox"/>
	R2: <input type="checkbox"/> coherent <i>report</i> of some aspects of events or experiences	
1.Developing	A1: <input type="checkbox"/> very limited ability to <i>analyze</i> , reformulate, or refocus the experience; little or no discussion of implications of the experience in the context of <i>future applications</i>	1 point for each element at this level
	S1 : <input type="checkbox"/> superficial description of applied <i>strategies</i> or of attempts to apply <i>strategies</i> for language learning	
	E1: <input type="checkbox"/> very few comments made about <i>external influences</i> , e.g. circumstances, others' perspectives, on the experience	Subtotal: <input type="checkbox"/>
	R1: <input type="checkbox"/> disjointed <i>report</i> of aspects of events or experiences	
<b>Total Score:</b> <input type="checkbox"/>		
<p><b>Note:</b> Scoring: There are four elements for each level. Referred to as 'A-S-E-R', they relate to:</p> <ul style="list-style-type: none"> <li>• <u>A</u>nalysis, reformulation and future application (A)</li> <li>• <u>S</u>trategy application (S)</li> <li>• <u>E</u>xternal influences (E)</li> <li>• <u>R</u>eport of events or experiences (R)</li> </ul> <p>Add the scores for each level. Results can be understood as:  Level 4: Competent Reflective Language Learner: 13-16  Level 3: Good Reflective Language Learner: 9-12  Level 2: Average Reflective Language Learner: 5-8  Level 1: Developing Reflective Language Learner: 0-4</p>		

The framework identifies four hierarchical levels of reflective skills, progressing from Levels 1 ('developing') to 4 ('competent'), and four elements of reflective L2 learning abilities. The four elements, referred to as A-S-E-R, relate to Analysis, reformulation and future application (A); Strategy application (S); External influences (E); and Report of events or experiences (R). They represent key aspects of L2 learning and function to discriminate between levels of reflective proficiency with respect to L2 development. For example, 'clear ability' (A4) and 'critical analysis' (S4) suggest a higher level of reflection than 'some ability' (A3) and 'logical explanation' (S3). The numeral beside the letter denotes the score accorded to each element as part of the scoring scheme. To illustrate, a student's reflective entry (Table 2) was judged to be 'good' based on a given score of 11. The ticked items in the matrix show her areas of strength and limitation in reflective L2 learning.

Table 2. An Example of Classifying a Student's Reflective L2 Learning Skills Based on her Journal

**Katie's (a pseudonym) Reflective Journal**

Entry No.	Reflection
Entry 1	My thoughts: {I know that my oral English is really bad. Exchange students are often confused about and don't understand what I want to say. I guess the problem is I don't even know anything about IPA. – <b>E2</b> } {To improve my spoken English, I must start from the basic- Pronunciation. So, I registered one course of ELEP named Pronunciation A and believed that it could help. At first, I don't realize that there are actually far more sounds in English than there are letters. Now, I know that there are 44 sounds in English including 20 vowels and 24 consonants. They can be further classified into short pure vowels, long pure vowels, diphthongs, voiced consonants and unvoiced consonants – <b>A3, S3</b> }. {There is not a simple one-to-one relationship between letters and phonemes as I thought before. Certainly, I have learnt a lot about pronunciation. This course is really helpful for my improvement in spoken English. From week 1 to week 8, I was taught about dividing sentences into thought groups, counting the number of syllables in the words and where to stress, the special 'schwa' sound and the confusing minimal pairs. With these techniques and knowledge in mind, I can now express myself in a better and more effective way that everyone finds no problem in understanding – <b>A3</b> }. Here, I have attached a file displaying some of the activities and interesting games that I did and played in class. This shows the effort I played to improve my oral English during these several weeks. Overall – <b>R3</b>

Level of Reflective Skills	Element in Reflective Entry in relation to L2 Learning	Scoring for each level
Good	<b>A3:</b> <input checked="" type="checkbox"/> some ability to <i>analyze</i> , reformulate, and refocus the experience; meaningful discussion of implications of the experience in the context of <i>future applications</i>	3 points for each element at this level  Subtotal: 9
	<b>S3 :</b> <input checked="" type="checkbox"/> logical explanation regarding effectiveness of applied or alternative <i>strategies</i> for language learning	
	<b>E3:</b> <input type="checkbox"/> constructive comments made about <i>external influences</i> , e.g. circumstances, others' perspectives, on the experience	
	<b>R3:</b> <input checked="" type="checkbox"/> <i>detailed report</i> of significant aspects of events or experiences	
Average	<b>A2:</b> <input type="checkbox"/> limited ability to <i>analyze</i> , reformulate, and refocus the experience; some discussion of implications of the experience in the context of <i>future applications</i>	2 points for each element at this level  Subtotal: 2
	<b>S2 :</b> <input type="checkbox"/> relevant discussion regarding choice and/or application of <i>strategies</i> for language learning	
	<b>E2:</b> <input checked="" type="checkbox"/> some comments made about <i>external influences</i> , e.g. circumstances, others' perspectives, on the experience	
	<b>R2:</b> <input type="checkbox"/> coherent <i>report</i> of some aspects of events or experiences	
<b>Total Score: 11</b>		
<b>Note:</b> Based on the given score for this reflective entry, Katie was judged to be a Level 3: Good Reflective Language Learner: 9-12		

Judy's 16 reflective entries ranged from 129 to 488 words in length. A team of four raters were recruited to examine the journals. The team comprised two university students, one in his final year and the other in Year 2, both of whom had had experience of writing reflective journals in English, an experienced university English teacher, and the second author of this paper (the researcher) with experience and expertise in reflective L2 learning. The composition of the team sought to solicit input from three perspectives – that of student, teacher, and researcher. They independently examined Judy's reflective accounts using the classification framework in Table 1. They were first given time to familiarize themselves with the framework. A sample of a student's entry (Table 2), which displayed reflective L2 learning abilities at two different levels, was provided as reference. The raters were then instructed to scrutinize the entries in respect of the two dimensions - elements of L2 learning and levels of reflective skills, to note down sentences or sections indicative of each element wherever possible, and to add the scores. The raters' scores were compared to identify the differences in Judy's entries and to determine whether or not there was a progression from a simple descriptive level of reflection to a more complex level of reflective activity.

## 5. Results

The four raters' evaluation results are displayed in Table 3. Raters 1, 2, 3 and 4 denote a university English teacher, the researcher, a Final-year university student, and a Year-2 university student, respectively. The columns, from left to right, illustrate Judy's 16 reflective accounts, the mean score by the raters, followed by the raters' scores on each element of Judy's writing at either of the four levels. The total score, out of a maximum of 16, is provided, alongside an interpretation of the given score in terms of Judy's level of reflective language skills – 'developing', 'average', 'good' or 'competent' – as evidenced by her reflective writing.

Table 3. Results of Raters' Evaluation of Judy's 16 Reflective Entries

Judy's Reflective Entry	Mean Score	Rater*	Subscore for Element of Reflective Entries	Total Score	Level of Reflective L2 Learning skills			
					L1 Developing	L2 Average	L3 Good	L4 Competent
1	7	1	A1, S2, E2, R3	8		✓		
		2	A2, S2, E1, R2	7		✓		
		3	A2, S2, E1, R2	7		✓		
		4	A1, S2, E1, R2	6		✓		
2	8	1	A2, S2, E2, R2	8		✓		
		2	A3, S3, E1, R2	9			✓	
		3	A2, S3, E2, R1	8		✓		
		4	A2, S2, E2, R1	7		✓		
3	8.5	1	A2, S2, E2, R3	9			✓	
		2	A2, S3, E2, R2	9			✓	
		3	A2, S2, E1, R3	8		✓		
		4	A2, S2, E1, R3	8		✓		
4	6.25	1	A2, S1, E2, R2	7		✓		
		2	A2, S1, E1, R2	6		✓		
		3	A2, S1, E1, R2	6		✓		

		4	A1, S1, E1, R3	6		✓		
5	8.5	1	A2, S2, E3, R2	9			✓	
		2	A2, S2, E3, R2	9			✓	
		3	A2, S1, E2, R2	7		✓		
		4	A3, S2, E1, R3	9			✓	
6	7.75	1	A2, S2, E2, R3	9			✓	
		2	A3, S3, E2, R3	11			✓	
		3	A1, S2, E1, R2	6		✓		
		4	A1, S2, E1, R1	5		✓		
7	6.25	1	A2, S2, E2, R2	8		✓		
		2	A2, S2, E1, R2	7		✓		
		3	A1, S1, E1, R2	5		✓		
		4	A1, S1, E1, R2	5		✓		
8	5.5	1	A1, S1, E2, R1	5		✓		
		2	A2, S1, E1, R1	5		✓		
		3	A2, S1, E1, R2	6		✓		
		4	A1, S1, E1, R3	6		✓		
9	5.0	1	A1, S1, E1, R2	5		✓		
		2	A1, S1, E1, R1	4	✓			
		3	A2, S1, E1, R2	6		✓		
		4	A1, S2, E1, R1	5		✓		
10	8.5	1	A2, S3, E3, R3	11			✓	
		2	A3, S3, E2, R2	10			✓	
		3	A2, S2, E1, R1	6		✓		
		4	A3, S2, E1, R1	7		✓		
11	7.0	1	A2, S3, E1, R2	8		✓		
		2	A2, S2, E1, R2	7		✓		
		3	A2, S2, E1, R2	7		✓		
		4	A2, S1, E1, R2	6		✓		
12	7.75	1	A3, S3, E3, R2	11			✓	
		2	A2, S2, E1, R1	6		✓		
		3	A2, S2, E1, R2	7		✓		
		4	A2, S3, E1, R1	7		✓		
13	8.25	1	A2, S3, E2, R2	9			✓	
		2	A3, S3, E1, R2	9			✓	
		3	A3, S2, E1, R2	8		✓		
		4	A3, S2, E1, R1	7		✓		
14	7	1	A3, S3, E2, R2	10			✓	
		2	A2, S2, E2, R2	8		✓		
		3	A1, S2, E1, R1	5		✓		
		4	A1, S2, E1, R1	5		✓		
15	6.75	1	A1, S2, E1, R2	6		✓		
		2	A1, S1, E2, R2	6		✓		
		3	A2, S2, E1, R2	7		✓		
		4	A1, S3, E1, R3	8		✓		
16	8.25	1	A3, S3, E2, R2	10			✓	
		2	A2, S2, E2, R3	9			✓	
		3	A2, S2, E1, R2	7		✓		
		4	A2, S2, E1, R2	7		✓		

*\*Remark:*

Rater 1: a university English teacher

Rater 2: one of the current researchers

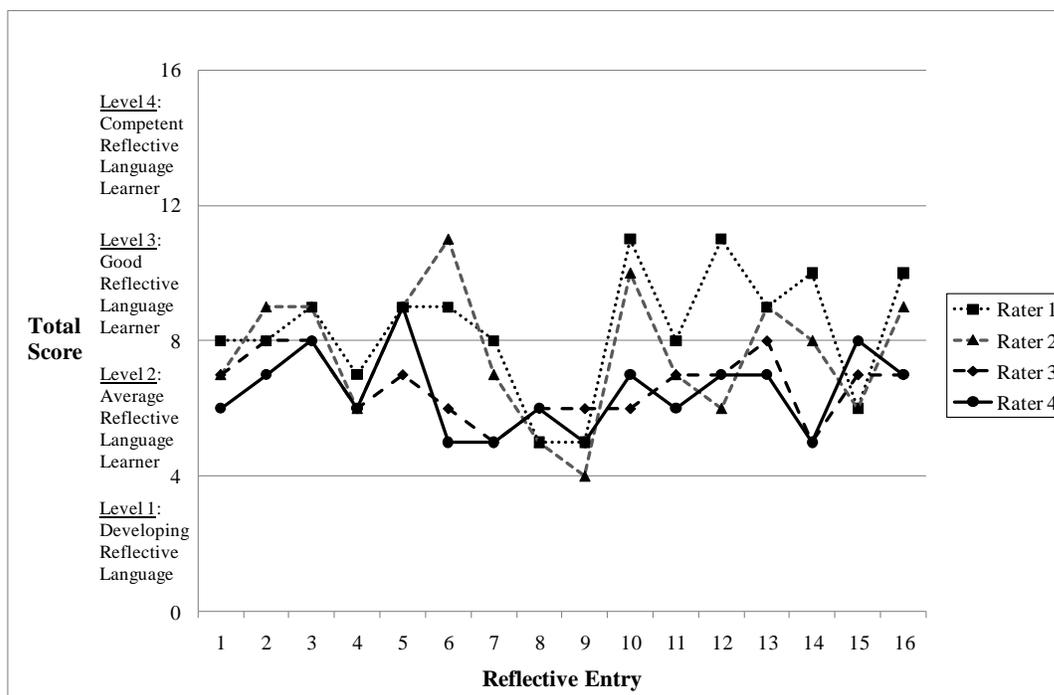
Rater 3: a Final-year university student

Rater 4: a Year-2 university student

As shown in Table 3, the mean of the four raters, which ranged from 5 to 8.5, indicated that Judy's entries were deemed as showing evidence of 'average' (Level 2) reflective L2 learning capabilities, a rating consonant with those of other studies (Thorpe, 2004). Examination of the subscores on elements of reflective L2 learning seemed to corroborate this finding. It seemed no significant differences occurred among the subscores across the four raters. Specifically, a substantial percentage of Judy's entries were awarded a subscore of 2 or less on the four elements (A-S-E-R, Table 1), with respect to her capacity to analyze, reformulate and refocus the experience (A, 89%), to evaluate the effectiveness of strategy application (S, 78%), to comment on the impact of external influences on the experience (E, 94%), and to report on significant aspects of the experience (R, 82%). Conversely, subscore 3 occurred infrequently, accounting for a mere 11% (critical analysis) and 6% of (external factors), respectively. No records of subscore 4 on any of the four elements were registered. Overall, the results in Table 3 show no discernible pattern of Judy's improved levels of reflection from entry 1 to entry 16 over a period of six months.

Figure 2 is plotted for easy comparison of the difference in the total score of each reflective entry among different raters. The results suggested consistent agreement among the four raters in 37.5% of Judy's entries (no. 1, 4, 7, 8, 11 and 15), where she was judged to be an 'average' reflective language learner (Level 2). Another 37.5% of the entries (no. 3, 5, 6, 10, 13 and 16) revealed that raters 1 (teacher) and 2 (researcher) tended to view Judy's writing more favourably by awarding a higher score (Level 3, 'good') than the student raters (Level 2, 'average'). Discrepancies arose in the remaining 25% of the entries (no. 2, 9, 12 and 14), showing internal agreement between student raters across the four entries (Level 2, 'average'), while the teacher-researcher raters held somewhat different views. For example, rater 2, based on the evidence in Judy's 12th entry, considered her to be at Level 2, an 'average' reflective language learner, whereas rater 1 found evidence of Judy's 'good' reflective language abilities. In this instance, there was a five-point gap between the two scores, compared with one- or two-point difference for other entries. Similarly, Judy's 14th entry elicited a 5-point gap between raters 1, 3 and 4.

Figure 2. Total Scores of Each Reflective Entry Given by the Four Raters



## 6. Discussion

The analysis of Judy's 16 journal entries utilizing the framework (Table 1) revealed that she revisited her L2 learning experiences, reflecting mostly on L2 learning strategy application and some aspects of the event, but less frequently and critically on reformulation or the extent to which outside factors affected L2 learning. From the results of the study, it seems that the two dimensions of the framework, linking hierarchical progression of reflective ability to elements of L2 learning, offered not only a score, but also information that would guide the student and the teacher to specific language areas of needed improvement, with possible follow-up activity, be it pursued by the teacher or the student with or without expert scaffolding. Whilst the study focused on the interrogation of 16 reflective journals, the issues that emerged from the analysis should inform further research that targets the design of a classification system for capturing students' in reflective L2 learning proficiency. For the benefit of clarity, such issues are presented below as three clusters.

### 6.1 Multi-layered Interpretation of Reflective Writing

The results of the study display internally consistent agreement between student raters in most cases, and some instances of disagreement between the teacher-researcher and the student raters. This implies that monitoring and measuring students' reflective proficiency by analyzing their journals can be problematic. The varying nature and diverse contents of students' writing

would render analysis difficult (Morrison, 1996), a situation compounded by the use of a non-native language (i.e. English in the study) by students to communicate meaning. As language is frequently construed as 'an interlocking set of systems and subsystems of sounds, words and sentences' for meaning creation and negotiation (Nunan, 2007, p.17), it is 'arbitrary, creative and multifunctional' (p.15), where multiple concepts and meanings can be embodied or realized in a single word or phrase not immediately accessible to an outsider.

The challenge for this and similar studies is that attempts to understand or analyze the contents of reflective journals may invite multi-layered interpretation, thus the possibility of divergent rater views when measuring students' reflective ability. The vibrancy and nuances of meaning captured in students' journals provide a rich portrait of the students' experiences on the one hand, but raise concerns about potential misunderstanding and diminished efficacy of a classification system designed to monitor reflective ability on the other. An additional observation involves whether or not balanced attention should be given to affective as well as cognitive aspects of the learning process in reflection. Korthagen and Vasalos (2005), for example, argue in favour of due recognition for both expression of emotions and rational analysis in the reflection process, while others (Bourner, 2003) support a separation of content from process in evaluation. These views, inevitably, draw attention to the lack of a consensus definition for 'reflection', as discussed earlier in the paper, which continues to frustrate efforts to compare, and to gain from research studies an expanded understanding of categorizing reflective proficiency, particularly in the context of L2 development.

## **6.2 Multi-modal Reflection**

The study analyzed written journals by means of a two-dimensional framework to identify levels of reflective L2 learning ability (Table 1). It is possible that the written form might prejudice some students against effective articulation of their experiences, a point raised by Wallman et al. (2008) and discussed previously in the paper. Such students would benefit from the provision of alternative modes of reflection, supported by an evaluative framework accommodating these options. An imperative exists for educators and researchers not just to distinguish among reflective proficiency, students' inclination, and ability to reflect in writing, but also to present alternative options in facilitating reflection.

Advances in communications technology in recent years have sparked a surge in interest in ePortfolio development to foster reflective practice in professional education (Cunningham, 2009). An ePortfolio is commonly understood as a purposeful collection of digital artefacts for documenting and showcasing progress and achievements in learning, through rich and complex processes of synthesizing, sharing, discussing, reflecting, and responding to feedback (JISC, 2008). Research on ePortfolio use has produced evidence of students' stronger understanding of learning as a continual process, and elevated levels of critical thinking (Willis, Gravestock & Jenkins, 2006). An ePortfolio's digital capacity enables students to deploy the visual and auditory channels of communication, making it an ideal tool to promote reflective competence through multi-media means. A recent study (Cheng & Chau, 2009), for instance, showed that students who utilized digital video for reflection in their ePortfolios exhibited a high capacity for rational analysis. Thus, the inclusion of audio or video for reflection, in addition to the text-based mode, would validate the spoken medium in mediating reflection, while exploiting new-media innovation for educational gains.

### **6.3 Multi-dimensional Scaffolding for Reflection**

The four elements specified in the framework (Table 1) developed for the study bear hallmarks of effective L2 learning, as widely reported in the literature on language development (Hsiao & Oxford, 2002; Hyland, 2006). One definite virtue which is shown by the study concerns their ability to direct raters or other users to focused aspects for critical examination, and follow-up tasks targeting such areas of need. The extent to which the categorization framework is effective, however, may hinge on the purpose of reflection and the context in which it occurs. The questions thus arise: what should be the role of reflection in L2 education: for self-assessment, or as an assessed part of a program? What potential obstacles exist in attempts to align reflective practice to curricular objectives in L2 learning? How far would the roles and relationships for teachers, students and the institutions be affected? What would be the hallmarks of effective reflective L2 learning? Would a separation of L2 competence from reflective proficiency in evaluation be practicable and desirable, especially if the key objective for reflection was to promote language development?

It seems that two options can be considered. The first is to commit resources support to inculcate a 'culture' of reflective L2 learning institution-wide, explicated, reinforced and extended chiefly through workshops, covering the conceptual, practical and ethical aspects of reflection, and a broadening of curricular foci to motivate and reward such practice. Another is to clearly articulate the purpose, role and value of reflective L2 learning within the institutional framework, in particular how this supports L2 development. Whether reflective exercises should involve graded or non-assessed evaluations needs to be established clearly from the outset. The literature on assessment suggests that teachers are likely to draw students' attention to the assessed components of a programme. A dissonance exists here, with teachers who usually mark students' work trying to convince them that non-graded reflection tasks for self-development are indeed relevant and critical. Likewise for many students, non-assessed assignments are generally perceived as of lesser importance, thus a low priority. A profitable approach is to accumulate incrementally a critical mass of teachers, students, and administrators to convince the rest that reflective language learning activities are of value, and that experiences and ideas are transferable, since nothing inspires change like success.

The above discussion underscores the need for multi-dimensional scaffolding to explore innovative ways of engagement with reflective L2 learning practice. Where support and preparation is limited and inappropriate, the 'r' in reflection may connote 'restraint' (selective disclosure of thoughts or embroidered account of experiences), 'rationalization' (short-term or quick-fix remedy rather than critical, sustained interrogation), 'routinization' (ritualized practice as a reaction to external exigencies rather than genuine desire emanating from within to understand and improve).

## **7. Conclusion**

The paper has outlined a four-level hierarchical framework (Table 1), in which the two specified dimensions, used together, produced an accessible and relevant system to map, monitor and determine students' reflective L2 learning capacities by interpreting their journals. The results show generally consistent agreement between the four raters (two university students, a university teacher and a researcher), with an 'average' rating for Judy's reflective L2 learning ability, one that accords with those of other studies. Three significant issues which emerged

include the importance of connections between the rich nuances of language use and multi-layered interpretation of journal contents, the necessity for multi-modal reflection, and the emphasis on multi-dimensional scaffolding to inculcate a 'culture' of reflective L2 learning as a process for analyzing and examining behaviours and motivations.

Despite the tentative nature of knowledge from the study, the contribution of the paper lies in the development of a framework that identifies different levels of reflective L2 learning ability, and highlights areas of needed L2 improvement. These constitute crucial processes that foster critical thinking: where students actively monitor and adjust their motivational beliefs and goals (internal) to accommodate demands of the institution or accrediting professional bodies (external), they are more likely to assess progress and achieve desired learning outcomes. Language educators are challenged to make sense of such knowledge, as well as to explore how such knowledge can be applied to broader contexts to enrich L2 teaching and learning. Part II of the study will examine the nature, role and value of the framework (Table 1) for measuring reflective L2 proficiency to enhance L2 learning.

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### References

- Boud, D., Keogh, R. & Walker, D. (1985). *Reflection: turning experience into learning*. New York: Kogan Page.
- Bourner, T. (2003). Assessing reflective learning. *Education and Training*, 45(5), 267-272.
- Boyd, E.M. & Fales, A.W. (1983). Reflective learning: key to learning from experience. *Journal of Humanistic Psychology*, 23, 99-117.
- Burke, P.J. & Dunn, S. (2006). Communicating science: Exploring reflexive pedagogical approaches. *Teaching in Higher Education*, 11(2), 219-231.
- Chau, J. (2010). *Reflective portfolios: Effects on learning English as a second language*. Berlin: Lambert Academic Publishing.
- Cheng, G. & Chau, J. (2009). Digital video for fostering self-reflection in an ePortfolio environment. *Learning, Media and Technology*, 34(4), 337-350.
- Clegg, S. (2004). Critical readings: progress files and the production of the autonomous learner. *Teaching in Higher Education*, 9(3), 287-298.
- Cunningham, A.C. (2009). Encouraging a reflective disposition: scaffolding critical thought through portfolio development. In J. Zubizarreta (Ed.), *The learning portfolio: Reflective practice for improving student learning* (pp.121-139). San Francisco: Jossey-Bass.
- Dewey, J. (1938). *Experience and education*. New York: Simon & Schuster.
- Dewey, J. (1960). *How we think*. Lexington, MA: D.C. Heath and Company.
- Fox, J., Wesche, M., Bayliss, D., Cheng, L., Turner, C.E. & Doe, C. (2007). *Language testing reconsidered*. Ottawa: University of Ottawa.
- Fulcher, G. & Davidson, F. (2007). *Language testing and assessment: An advanced resource book*. London: Routledge.

- Hillocks, G. (1995). *Teaching writing as reflective practice*. New York: Teachers' College Press, Columbia University.
- Hsiao, T. & Oxford, R.L. (2002). Comparing theories of language learning strategies: a contemporary factor analysis. *The Modern Language Journal*, 86, 368-383.
- Hyland, K. (2003). *Second language writing*. Cambridge: Cambridge University Press.
- Hyland, K. (2006). *English for academic purposes: an advanced resource book*. London: Routledge.
- Johnson, K. (2001). *An introduction to foreign language learning and teaching*. Farlow, England: Longman.
- Joint Information Systems Committee (JISC) (2008). *Effective practice with e-portfolios: supporting 21<sup>st</sup> century learning*. Retrieved August 2, 2011 from <http://www.jisc.ac.uk/media/documents/publications/effectivepracticeportfolios.pdf>
- Jones, M. & Shelton, M. (2006). *Developing your portfolio: Enhancing your learning and showing your stuff*. New York: Routledge.
- Kember, D., Jones, A., Loke, A., McKay, J., Sinclair, K., Tse, H., Webb, C., Wong, F., Wong, M. & Yeung, E. (1999). Determining the level of reflective thinking from students' written journals using a coding scheme based on the work of Mezirow. *International Journal of Lifelong Education*, 18(1), 18-30.
- Korthagen, F. & Vasalos, A. (2005). Levels in reflection: Core reflection as a means to enhance professional growth. *Teachers and Teaching: Theory and Practice*, 11(1), 47-51.
- Loughran, J.J. (2002). Effective reflective practice: in search of meaning in learning about teaching. *Journal of Teacher Education*, 53(1), 33-43.
- McGivern, J. & Thompson, J. (2004). Dialoguing for development: lessons for reflection. In M. Reynolds & R. Vince (Eds.), *Organising reflection* (pp.142-155). Hampshire, England: Ashgate.
- Mezirow, J. (1991). *Transformative dimensions of adult learning*. San Francisco: Jossey-Bass.
- Morrison, K. (1996). Developing reflective practice in higher degree students through a learning journal. *Studies in Higher Education*, 21(3), 317-332.
- Newton, J.M. (2000). Uncovering knowing in practice amongst a group of undergraduate student nurses. *Reflective Practice*, 1(2), 183-198.
- Nunan, D. (2007). *What is this thing called language?* New York: Palgrave Macmillan.
- Nunes, A. (2004). Portfolios in the EFL classroom: Disclosing an informed practice. *ELT Journal*, 58(4), 327-335.
- Orland-Barak, L. (2005). Portfolios as evidence of reflective practice: what remains "untold". *Educational Research*, 47(1), 25-44.
- Pierson, W. (1998). Reflection and nursing education. *Journal of Advanced Nursing*, 27, 165-170.
- Plack, M.M., Driscoll, M., Blissett, S., McKenna, R. & Plack, T.P. (2005). A method for assessing reflective journal writing. *Journal of Allied Health*, 34 (4), 199-208.
- Schon, D. A. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books.
- Schon, D.A. (1987). *Educating the reflective practitioner*. San Francisco: Jossey-Bass.
- Scott, T. (2005). Creating the subject of portfolios: reflective writing and the conveyance of institutional prerogatives. *Written Communication*, 22(3), 1-35.
- Sparks-Langer, G.M., Simmons, J.M. & Pasch, M. (1990). Reflective pedagogical thinking: How can we promote it and measure it? *Journal of Teacher Education*, 41(4), 23-32.
- Thorpe, K. (2004). Reflective learning journals: from concept to practice. *Reflective Practice* 5(3), 327-343.
- Wallman, A., Lindblad, A.K., Hall, S., Lundmark, A. & Ring, L. (2008). A categorization scheme for assessing pharmacy students' levels of reflection during internships. *American Journal of Pharmaceutical Education*, 71(1), 1-10.
- Welsh, M.A. & Dehler, G.E (2004). P(l)aying attention: communities of practice and organised reflection. In M. Reynolds & R. Vince (Eds.), *Organising reflection* (pp.15-29). Hampshire, England: Ashgate.
- Willis, H. P. Gravestock & Jenkins, M. (2006). Throwing a pebble into the pond: ePortfolios and student engagement. In *Who's learning? Whose technology?* Proceedings of the 23<sup>rd</sup> ACILITE Conference (pp.883-888). Sydney: Sydney University Press.
- Yancey, K.B. (1998). *Reflection in the writing classroom*. Logan, Utah: Utah University Press.

**Appendix 1**

Criteria for evaluating Judy's reflective journals in the ePortfolio

<b>Criteria</b>	<b>Excellent</b>	<b>Good</b>	<b>Inadequate</b>
1. English language	Effective use of language	Reasonable use of language	Weak language
2. Quality of work	High quality of work	Reasonable quality of work	Work of poor quality
3. Quantity & Variety of work	Work includes a wide variety of text & media files (e.g. audio, video, document, graphics & others)	Work includes more than one type of file (e.g. text & media)	Work includes only one type of file / or not much work evident
4. Reflection	Work demonstrates clear ability to evaluate learning and progress	Work demonstrates some ability to evaluate learning and progress	Work demonstrates little or no ability to evaluate learning and progress