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The effect of reflective learning e-journals on reading comprehension and communication in language learning



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ABSTRACT

This study focused on the use of reflective learning e-journals in a university web-based English as a foreign language (EFL) course. In the study, a multimedia-based English programme comprising fifteen different units was delivered online as a one-semester instructional course. Ninety-eight undergraduate students participated, and they were divided into two groups: the treatment group used reflective learning e-journals, while the control group completed content-related exercises. The study investigated the effects of reflective learning e-journals and how students used them to aid learning. Results show that when learning from web-based instruction, students who used reflective learning e-journals outperformed students who did not do so in terms of reading comprehension. Using reflective e-journals improved the academic performance of learners in the online course. In addition, journal writing students claimed that they also improved their organisational skills and writing abilities through their reflective learning e-journal writing and found the journal writing to be a very helpful tool in reviewing the course and preparing for the exam.

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1. Introduction

This study focused on the use of reflective learning e-journals in a university web-based English as a foreign language (EFL) course. In this study, reflective learning e-journals are a "form of reflective practice; that is, as a device for working with events and experiences in order to extract meaning from them" (Boud, 2001b). They are used to encourage students to build connections between the themes explored in class and their personal experiences, values and beliefs as well as to investigate how and what they learn. It is assumed that reflective learning e-journals help students develop the ability to become aware of their own knowledge construction process; the opportunity to reflect on present assumptions, premises, beliefs, and conceptualisations, facilitates cognitive growth and leads to improved learning achievement (Morrison, 1996). This study examined this assumption by comparing the learning outcomes of students who used reflective learning e-journals with students who did not. In addition, data from students' reflective learning e-journal entries, interviews, and questionnaires were collected and analysed to investigate how students used reflective learning e-journals to integrate personal perspectives on course content and how they perceived the journals as a tool for language learning.

In this study, a multimedia-based English programme, which comprised fifteen different units, was delivered as an online, one-semester instructional course. Ninety-eight students participated. They were divided into two groups: one used reflective learning e-journals, while the other did not. The study investigated the effects of using reflective learning e-journals and how the students used them to learn.

Two research questions guided this study:

- (1) Does the use of reflective learning e-journals improve online learners' language learning in terms of content comprehension?
- (2) How do students perceive reflective learning e-journals for language learning?

Literature related to reflective learning e-journals will be discussed next, followed by the methods of the experiment as well as results and discussions.

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2. Literature review

2.1. Reflection and learning

Learning is a complex process that involves both action and reflection. That is, we learn not only through experiencing but also through the act of recapturing the experience. Reflection is not only a powerful tool in the learning process (Batts & Wilkes, 1993) but very helpful for promoting learning performance (Chen, Wei, Wu, & Uden, 2009). Reflection "illuminates what has been experienced" and provides "a basis for future action" (Raelin, 2001, p. 11). In the education literature, reflection is generally seen as a concept, an activity or a process wherein thought is provoked by situations of uncertainty, doubt, or inquiry, which can lead to finding material that will resolve doubt and dispose of perplexity (Dewey, 1933). As a concept, reflection is the self-awareness or "critical consciousness" (Freire, 1973) through which learners become actors who make deliberate choices. As a thinking activity, reflection involves learners' feelings, experiences and evaluations in constructing knowledge. Boud, Keough, and Walker (1985) defined reflection as "intellectual and affective activities in which individuals engage to explore their experiences in order to lead to new understandings and appreciations" (p. 19). In other words, reflection is "deliberate thinking about action with a view to its improvement" (Hatton & Smith, 1995, p. 52).

Reflection is an active process. According to Dewey's experiential learning theories (1933), reflection is an active and careful consideration of any belief or supposed form of knowledge, which constitutes part of a dynamic continuum of both past and future experiences. Similarly, Reid (1993), and McTaggart and Kemmis (1995) define reflection as an active process that reviews, analyses and evaluates experience and draws on theoretical concepts or previous learning to provide an action plan for future experiences. Reid (1993) adds that reflective practice potentially both a way of learning and a mode of survival development once formal education ceases while McTaggart and Kemmis (1995) explain "plan, act, observe and reflect" in their action research. In other words, reflection can be seen as a type of thinking that involves the construction of an understanding and a reframing of the situation and the development of new knowledge and skills for problem-solving and for achieving an anticipated outcome (Dewey, 1933; Moon, 1999). Taken as a process, reflection allows learners to return to experience, attend to feelings and evaluate experience (Boud et al., 1985; Schön, 1983), allowing for the reconstruction of knowledge.

In fact, the ability to reflect has been associated with higher level of learning in several taxonomies of learning objectives. Bloom's taxonomy (1956) places the process of reflection in the level of evaluation and critique as the highest educational objective. John Biggs' SOLO taxonomy provides a systematic way of describing how a learner's achievement improves in academic tasks; it describes the process of reflection as indicative of the highest 'extended abstract' learning and an indicator of 'deep' learning in contrast to 'surface' learning in which the teaching and learning of the reflective activities are missing (Biggs, 1999; Biggs & Collis, 1982).

Kolb (1984) also highlighted the importance of the reflective process in his theory of experiential learning and viewed reflection as a necessary process in engaging learners in content learning. Kolb (1984) posited a four-stage model of experiential learning: (a) concrete experience, (b) reflective observation, (c) abstract conceptualisation, and (d) active experimentation or application. In applying reflection journaling, students can be selectively guided by instructors to progress through Kolb's four stages. These stages started with a description of, and subsequent reflection on, a specific experience, then moved to the exploration, explanation or questioning of the meaning of the experience, and finally ended with new meanings, interpretations, or understandings of the event. Reflective journals used in this way can create effective learning conditions that may result in the types of meaningful or purposive learning proposed by Dewey and further refined by adult education theorist Kolb and psychotherapist Rogers (1983). In the context of the study reported here, students engaged in experiential learning by participating in authentic reading and writing activities in an online English course. They were required to write reflection journals under the guidance of the instructor to make their learning effective, meaningful and purposive.

Moon (1999) discusses Kolb's theory in some detail in her book on reflection and learning. According to her conclusion, the basic cycle really applies to learning from or processing of raw data; there may well be a difference in applying his ideas for those meta-cognitive processes which are applicable to reflection on material already learnt. In her five-stage learning mapping (1999), the ability to carry out meaningful reflective learning is also considered indicative of the highest level of 'deep' learning, which she terms 'transformative learning.' That is, for transformative learning to take place learners need to be exposed to activities such as reflection, which require a deliberate and conscious intention on the part of the learner (Moon, 1999).

However, views on the nature of reflective practice differ. According to Schön (1983, 1987) and Cowan (1998), our learning approach includes three preplanned loops: Reflection-in-action, reflection-on-action, and reflection-for-action (Kofoed & Rosenørn, 1998). Schön (1983, 1987) theorised that there are two elements to reflective practice: reflection-in-action and reflection-on-action. Reflection-in-action means thinking about what you are doing while doing it, while reflection-on-action, or what might be termed 'cognitive post-mortem,' refers to thinking about what you have done after you have done it (Greenwood, 1993). Reflection-on-action leads to double-loop learning, in which individuals do not only search for alternative actions to achieve the same ends, but also examine the appropriateness and propriety of the chosen ends, and is considered better than single-loop learning, in which reflection-in-action takes place (Greenwood, 1998).

The concept of reflection-for-action first introduced by Cowan (1998) refers to a learning distinction in which learners reflect upon what kinds of problems they hope to be able to solve more successfully in the future than they are at present (Kofoed & Rosenørn, 1998). Cowan (1998) openly experimented with his students in order to solve difficulties in their learning, and described his learning concept as "reflective learning" since he believed the reflection is a central issue in the learning process. Ghaye (2007) later defined reflection-for-action as looking into what one would like to achieve. Reflection-for-action takes place for a reason or a specific purpose, and in order to improve the thinking of the practice, the plans for action are included.

2.2. Reflective journal writing

The theoretical background for using reflective journaling in higher education can be traced back to general learning theory, adult learning theory, experiential learning theory and psychological theories (Schön, 1983). Education theorist John Dewey (1938) suggested using educative experience to foster meaningful and purposive learning. He viewed an effective learning condition as one that actively

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