Facilitating Learning and Teaching by Computer-Mediated Communications (CMC): a Reflective Experience of Pre-service Student-teacher

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Abstract

The purpose of this study was to investigate reflective experience of student teachers, where computer-mediated communication (CMC) were used in an online, web-assisted learning environment to support traditional face-to-face teaching. Participants in a teacher education programme at certificate level, were asked to reflect and report their learning experience at each lecture. They were required to spend several minutes to reflect what they had learnt before each lesson ended, and then reported in the electronic discussion forum with their fresh memories. It was not surprising different participants would have different perspectives in the lesson. These would serve different purposes: (1) opportunities were provided to participants to consolidate what they had learnt during that lesson immediately by reflection. (2) All learning experiences were documented in text and message form. Each participant would share their particular concerns to what they experience in that lesson, and remind one another the key learning focus. (3) Interaction occurred and participants themselves initiated new discussion topics, after careful and thorough reflection to their own learning experience. Unlike traditional approach that lecturers actively posts several questions and passively waiting for participants' responses.

Keywords:
Computer-mediated communication (CMC)

Introduction

The main purpose of this study is to enhance student reflective practice through the use Computer-mediated communications (CMC). It was well documented in the literature the advantages and disadvantages of CMC. Davie and Wells (1991) [2] described CMC is a medium that empowered learners, and enable them to take a more active role in the social constructions of meaning. CMC allows all students to contribute, unlike face-to-face classes where the teacher and a few students would probably dominate the class discussion. Mason & Kaye (1993) [5] also stated that learning happened not necessarily occurred in real time or face-to-face relationship but could also be supported by asynchronous communication in the computer network. Constructivist and learner-center approach advocates described various kinds of information exchange technologies that could be used to assist traditional face-to-face teaching. Today, information retrieval technologies have improved student access to materials and allowed “many to many” interactions among students and teachers regularly, that are time and place independent. CMC also provides new possibility for learners to engage in active learning. Some studies suggested that this help to move towards a more learner-centered practice (Berge 1997) [1] However, it was not clear how this shift happened and to what extent teachers brought a learner-center approach with them into the classroom.

Consolidation by Reflective practice

Harrington & Hattaway (1993) [3] assured that CMC is a unique way for student teachers to develop reflective attitudes and skills. It would be beneficial when time is allowed for students to reflect at each lesson with the aid of CMC. This would allow students to compose thoughtful written contributions and lead to deeper thinking (Berge, 1997) [1].

Noblitt (1995) [6] pointed out that the major issue in an online learning environment is learners might feel isolated and disconnected. In order to overcome this limitation, Hill (1997) [4] pointed out that the strategy is to empower the learner and encouraging both co-operative and interaction. As a result, participants were asked to reflect and report their learning experience at each lecture. They were required to take several minutes to reflect what they had learnt before each lesson ended, and then reported them in the electronic discussion forum right away with fresh memories. These would serve different purposes: (1) opportunities were provided to allow participants consolidate the knowledge that learnt during the lesson immediately by reflection. (2) All learning experience were documented in text and message form. Each participant would share their particular concern to what they received during the lesson, and reminded one another the key learning focus for that specific lesson. (3) Interaction occurred and participants themselves initiated new discussion topics after careful and thorough reflection. It was not
surprising that different participants would have different perspectives, even in the same lesson.

**Self-initiated discussions**

In General, participants had had the opportunities to interact and experience using on-line discussion forum for expressing opinions and exchanging understandings. However, unlike traditional approach that lecturers actively posts the discussions questions and passively waiting for participants’ responses, most of the discussion topics were raised by the participants themselves. Students would become more self-motivated and resulted active participation during or after the class.

**Documented learning experiences**

One of the distinct advantages using asynchronous mode of communication is that their experience could be shared and stored in text or message form, so that other participants could view and response according to their own schedule. Peer support, feedback from other participants are essential elements in this reflective action. They can, as a result, understand the learning materials more in depth, to solve problems and most importantly, helped each others. This mode of interaction helped the participants to exchange ideas, offer helpful hints, provide emotional supports, sharing information and sometimes collaborate over the Internet, regardless the limit of time and locations. However, it is quite interesting to note that participants seldom challenge, oppose or defend each other’s views. It is worth to investigate the communication pattern as a future research: whether this is a Chinese culture, or as Weisband (1992) [7] concluded that participants in the computer-mediated communications system tended to agree with the others.

**Outcomes and feedback from students**

There were total 14 participants in this module. Evaluation was conducted by both focus group meeting, and also analysis was made on what had documented in the electronic discussion forum. They were invited to share their learning experience when learning was aided by CMC through the web-based learning and teaching platform. It was interesting to know that most students reported that writing electronic journals forced them to recall clearly the “context” on what had been taught, although they might not remember the “content”. These helped them to formulate a learning map on the construction of relationships among different topics. Students also felt that the features provided by the CMC platform were helpful to their learning, particular in sharing information asynchronously. However, it was interested to know over half of them expressed the use of CMC / web-based learning systems did not facilitate self-learning, and they treasured traditional face-to-face discussions where “physical” contact would be the key factor in interpersonal communication.

**Reference:**