

談電腦輔助語言學習融入溝通式教學法

Incorporating CALL into the CLT Paradigm

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摘要

本文回顧了電腦輔助語言學習(CALL)與溝通式教學法(CLT)的部份重要文獻，並探討將電腦輔助語言學習融入溝通式教學法的現況。隨著過去三十年來電腦技術的快速發展，電腦輔助語言學習已被廣泛地應用在現今的語言教室之中。而既然溝通式教學法在當今的外語教學上已蔚為主要潮流，自然無法不將電腦輔助語言學習與溝通式教學法相提並論。本文採用 Bax (2003)的意見，將電腦輔助語言學習的發展劃分成三個時期，即限制期(*Restricted CALL*)、開放期(*Open CALL*)及整合期(*Integrated CALL*)。本文將就開放期(即目前所處時期)討論電腦輔助語言學習是如何融入溝通式教學法。而溝通式教學法的架構則包括外語教學迄今的八大變化，即(一)學習者自學；(二)學習的社會性；(三)課程統整；(四)著重意義；(五)學習者的多樣性；(六)思考技巧；(七)另類評量；(八)教師即共同學習者。

關鍵詞：電腦輔助語言學習，溝通式教學法，外語教育

ABSTRACT

This paper reviews some of the important literature on Computer Assisted Language Learning (CALL) and the Communicative Language Teaching (CLT) and investigates how CALL can be incorporated into the CLT paradigm. As CLT is viewed as a paradigm shift in the second language education, it is hard not to connect the use of computer technology to this new paradigm, since CALL has been evolving rapidly in the past 30 years and is applied in most language classrooms nowadays. Instead of dividing the history of CALL into Warschauer and Healey's (1998) three phases, this paper adopts Bax's (2003) three phases of CALL—*Restricted CALL*, *Open CALL* and *Integrated CALL*, of which *Open CALL* will be fully discussed. The CLT paradigm, as outlined by Jacobs & Farrell (2003), is a framework highlighting the eight changes in the second language education--(1) learner autonomy; (2) social nature of learning; (3) curricular integration; (4) focus on meaning; (5) diversity; (6) thinking skills; (7) alternative assessment; (8) teachers as co-learners. Based on the eight major changes, *Open CALL* will be investigated through each of these categories.

Key words: CALL, CLT, paradigm shift, second language education

I. Introduction

The history of CALL, like that of language teaching approaches and SLA theories, is also composed of different phases. The most famous categorization would be Warschauer and Healey's (1998) *Behavioristic*, *Communicative* and *Integrative CALL*. In their definitions, Behavioristic CALL, dated as 1970s-1980s, was based on the then-dominant behaviorist theories of learning. Therefore, drill and practice was the only thing learners could do on the computer during that phase.

Moving from the structural approach to the cognitive approach, the next phase of CALL was Communicative CALL, which was dated as 1980s-1990s and based on the communicative approach to teaching. In other words, the second phase of CALL teaches grammar implicitly; allows students to generate original utterances; admits a variety of student responses and creates a natural environment for students to use the target language (Underwood, 1984, p.52). With the advancement of multimedia computers and the Internet in the last decade, the twenty-first century is the era of

Integrative CALL. The third phase of CALL features the realization of socio-constructivism, based on which electronic communication is now spreading and evolving.

In short, the computer serves as a *tutor*, a *stimulus*, or a *tool* consecutively in the three phases. However, Warschauer and Healey's categorization was strictly criticized by Bax (2003) due to the following problems: (1) Warschauer's discussions of the phases of CALL have shown great inconsistencies in terms of terminology and chronology across different publications; (2) The CALL software in the Communicative CALL phase almost had nothing to do with real communication, therefore Communicative CALL in the 1980s was never actually communicative at all; (3) The phase of Integrative CALL is also questionable in that language use in authentic social contexts and integration of skills were already advocated in communicative approaches during the 1980s, and it would be odd to imply that Integrative CALL is somehow "post communicative."

In order to accommodate to the above problems, Bax suggests that there is a need to reanalyze Warschauer and Healey's historical phases of CALL, thus proposing an alternative analysis of CALL: *Restricted CALL*, *Open CALL* and *Integrated CALL*. These three "approaches," instead of "phases," differ from Warschauer and Healey's three phases in the following ways: (1) Restricted CALL, dominating from the 1960s until about 1980, is a more satisfactory term than Behaviorist CALL because "restricted" covers a broader range of issues than just the underlying theory of learning. For example, Restricted CALL can also refer to the relatively restricted use of software, activity type, teacher's role and feedback to students during that time. (2) In contrast to Restricted CALL, Open CALL has lasted from the 1980s until today. The openness of Open CALL, though not completely open, is relatively greater than that of Restricted CALL. During this period, much software has been produced on a humanistic basis despite the

technological limitations to conduct realistic communication on the computer. Then genuine communication on the computer has become possible via the web, email, CMC, and so forth. (3) Integrated CALL is defined as the ultimate goal for CALL. At that stage, the technology will become "normalized" in everyday situations and appear to be "invisible." In other words, people will no longer think that CALL is a separate subject in the language teaching field, because the use of computers will be as common as the use of pens and books today. However, there is still a long way to go to reach such a goal.

In this paper, the approach of CALL under discussion will be Open CALL, since this is where CALL is now. However, as mentioned earlier, the openness of Open CALL is relatively greater than that of Restricted CALL. Some of the software produced nowadays is still restricted in the sense of Restricted CALL. On the other hand, as genuine communication is now possible through the use of computers, it would be reasonable to argue for a more genuinely "communicative" role for CALL since around 1995. Consequently, Bax claimed that "in general terms we are in an Open phase of CALL, but each institution and classroom may also exhibit certain Restricted and even Integrated features."

In parallel with Open CALL, Communicative Language Teaching (CLT), the mainstream teaching approach for today will be discussed in the next section, which serves as the basis for the purpose of this paper--investigating the possibility of incorporating CALL into the CLT paradigm.

II. The CLT Paradigm

The beginning of Communicative Language Teaching can be dated back to the late 1960s. Its goal is to develop what Hymes (1972) referred to as "communicative competence," in contrast to Chomsky's (1965) "linguistic competence." The **theory of language** which CLT is based on is mainly characterized by the following features (Richards & Rodgers, 2001):

- (1) Language is a system for the expression of *meaning*.
- (2) The primary function of language is to allow *interaction* and *communication*.
- (3) The structure of language reflects its *functional and communicative uses*.
- (4) The primary units of language are not merely its grammatical and structural features, but categories of *functional and communicative meaning* as exemplified in discourse.

In terms of **learning theory** for CLT, Richards & Rodgers (2001) proposed three principles underlying the theory:

- (1) *Communication* principle: Activities that involve real communication promote learning.
- (2) *Task* principle: Activities in which language is used for carrying out meaningful tasks promote learning.
- (3) *Meaningfulness* principle: Language that is meaningful to the learner supports the learning process.

In brief, the CLT approach centers around “meaningful communication for use,” which distinguishes it from other teaching approaches.

Looking at CLT from a broader perspective, Jacobs & Farrell (2003) views CLT as a paradigm shift in the second language education, where language teaching has moved from positivism to post-positivism. The **key components** of this shift include: (1) Instruction has been moved from teacher-centered to learner-centered and from product-oriented to process-oriented; (2) While the focus is on the social nature of learning, much emphasis is placed on individual differences at the same time; (3) A whole-to-part orientation has replaced a part-to-whole approach with a great emphasis on the importance of meaning; (4) Greater attention to the view of those internal to the

classroom has led to the rise of qualitative research; (5) Learning has been viewed as a lifelong process instead of an exam-oriented process. Under the above framework, the authors described eight **changes** as part of the paradigm shift in second language education: (1) learner autonomy; (2) social nature of learning; (3) curricular integration; (4) focus on meaning; (5) diversity; (6) thinking skills; (7) alternative assessment; (8) teachers as co-learners. They concluded that the paradigm shift towards CLT is gradual, evolutionary and piecemeal, because it takes time to change people’s beliefs and behaviors in education and elsewhere.

Based on the eight major changes proposed by Jacobs & Farrell, Open CALL will be investigated through each of these eight categories in the next section to show how well it can be incorporated into the CLT paradigm.

III. Investigation of Incorporating CALL into the CLT Paradigm

1. Learner autonomy

Learner autonomy means that (1) learners have some choice about the curriculum; (2) they should feel responsible for their own learning; (3) intrinsic motivation plays a central role in learning.

CALL has been used to facilitate learner autonomy in recent years (Egbert et al., 1999). The construction of many foreign language self-learning centers in all levels of schools is the realization of such a concept (Chao, 2003). According to Chao (2003), the eight conditions for optimal language learning environments proposed by Egbert et al. (1999) are the foundations of constructing creative self-learning activities:

- (1) Learners have opportunities to interact and negotiate meaning.
- (2) Learners interact in the target language with an authentic audience.
- (3) Learners are involved in authentic tasks.
- (4) Learners are exposed to and encouraged

to produce varied and creative language.

- (5) Learners have enough time and feedback.
- (6) Learners are guided to attend mindfully to the learning process.
- (7) Learners work in an atmosphere with an ideal stress / anxiety level.
- (8) Learner autonomy is supported.

However, research still needs to be done to explore the relationship between learner autonomy and the CALL environment. As Blin (1999) pointed out, “the computer tool is more likely to promote learner autonomy, given that adequate learner training is essential if the tool is to be used appropriately.” Therefore, it is important to provide students with sufficient training on the control of the computer before full learner autonomy can be achieved. In an ethnographic study on electronic literacy, Warschauer (2000) stressed the importance of students’ awareness of the purpose of the literacy activities. Only when students understood the purpose of these activities, found them culturally and socially relevant, and were able to use the media appropriately, can we say the these activities were most successful.

Nevertheless, in terms of learner autonomy, CALL plays and will continue to play an important role in the second language education.

2. *Social nature of learning*

The social nature of learning in the CLT paradigm refers to students’ learning via interacting with their environment, namely, their teachers and peers.

Since genuine communication is now possible through the use of computer, such a CALL environment can thus reflect the social nature of learning in the CLT paradigm, and even have the advantage over the traditional face-to-face interaction. Peyton (1999) proposed that computer-mediated interaction provides participants equal opportunities for discussion. Kern (1995)

found that, compared with an oral class discussion, there are several advantages for learners using *Daedalus InterChange* (a local area computer network application), for example, there were more frequent opportunities for student expression and more language production; students’ output could be of greater level of sophistication; students could actually learn from peers; and students’ motivation was greatly increased while their communication anxiety was considerably reduced.

Some crucial points for implementing CMC (computer mediated communication) need to be taken into consideration in spite of the above advantages (Kern, 1995): (1) Grammatical accuracy might suffer for fluency; (2) the quality of the interactions is critical and needs to be taken seriously and examined; (3) teachers are central to the process of creating opportunities for students to interact with individuals and need to continually shape and examine those opportunities and their outcomes.

Although the textualized interaction of CMC still needs further exploration for its different nature from that of face-to-face communication, CMC is well situated within the CLT paradigm in terms of the social nature of learning.

3. *Curricular integration*

The CLT approach proposes curricular integration because it is claimed that students are able to have stronger grasp of subject matter once they see links between various subject areas that are taught jointly.

For CALL to help curricular integration, “web projects by their nature lend themselves well to integrating across the curriculum” (Roerden, 1997). For example, we may design a Web Publishing project that integrates English, Music and Social Studies.

In a similar vein, the integration of the four language skills in language teaching is now possible in CALL environments (Hanson-Smith, 1999).

Through the use of multimedia computer programs, the input and output of language can be largely enriched as seen in the following statement:

Multimedia in a CALL environment means that input from written texts may be enhanced by pictures, graphics, animations, video and sound as well as hyperlinks to other explanatory text. Likewise, video and other visuals, as well as a scrolled or highlighted text, may support audio.....students may respond to multimedia stimuli not just by hitting a key or button but by producing answers in the form of text, audio, and even video.

(Hanson-Smith, 1999: 189)

The fulfillment of curricular integration through the web and multimedia therefore qualifies Open CALL as part of the CLT paradigm.

4. Focus on meaning

This category is in the vein of Richards & Rodgers' theory of language and theory of learning for CLT: (1) Language is a system for the expression of meaning and (2) we learn best when we connect and store information in meaningful chunks.

Having studied learner discourse in CMC discussion, interactive multimedia software and so on, Chapelle (2001) concluded that learners were engaged in meaningful language use while working on a CALL task. The results confirmed the use of CALL as "a meaningful task for use," which is the core of CLT.

5. Diversity

The term "diversity" is two-fold here. It either refers to different students attaching different connotations to the same event or information, or it refers to the mix of students in terms of their background, first language, religion, ethnic social class and so on. In this paper, only the latter definition will be discussed.

To account for the diversity among individuals, "multiple intelligences" is the term to follow. Roerden (1997) proposed that it is important to offer a web-based curriculum that features something for everyone, since everyone has different innate strengths and talents. For example, some students might be good at creative expression while other students might enjoy critical thinking; one person might think collaboration helps him / her learn better while the other would like to do research alone. Therefore, each assignment to students should offer several options that reflect each individual's learning mode. In this sense, the web-based curriculum seems to serve the purpose well for its possibility to combine different activities within one project (Roerden, 1997).

6. Thinking skills

Moving from positivism towards post-positivism, the CLT paradigm no longer encourages students to focus on pre-set materials for fixed examinations. On the other hand, students are required to apply information to other contexts, analyze the features of a given phenomenon, synthesize information to create something new and evaluate information and ideas.

Egbert (1999) provides an example of improving students' thinking skills through the use of email. In a project entitled "Born on the Fourth of July," the teacher arranged for her students to interview the veterans via email for a thematic unit on the Vietnam War. This example shows that interaction with world community members and experts helps students expand the scope of their learning and this can be easily achieved through the use of email.

In addition to email, the web also provides students with easy access to valuable resources in their learning process. Therefore, it is fair to say that CALL is beneficial to the improvement of students' thinking skills, at least in a much faster and more efficient way than before.

7. Alternative assessment

Logically, it stands to reason that if we use a communicative approach to language teaching, we would certainly want to measure students' learning outcome on communicative competence. That is why new assessment instruments are called for in the CLT paradigm to mirror more closely real-life conditions and involve thinking skills. Moreover, the goal of alternative assessment is not just assessing but is to teach.

However, as CLT has become the mainstream approach in ESL contexts over the recent decades, it is believed that traditional paper-and-pencil tests, which consist of discrete items, are one of the major obstacles to the implementation of CLT in most Asian countries (Li, 1995). Most students, who are convinced of their test scores as a reflection of their achievement, think that CLT activities do not seem to help them improve their English directly. In other words, CLT aims to improve students' communicative competence, but the traditional assessment instruments do not seem to be able to measure that learning outcomes accordingly.

As language performance assessment has been called for since the advent of the communicative movement in language teaching in the 1970s (McNamara, 1996), the educational system's reluctance of using performance assessment instead of traditional tests has revealed many unsolved problems coming along with this new measurement. One major problem is that the "performance" itself covers too broad a range of constructs to define. Unlike the traditional pencil-and-paper tests, which have a clear coverage of discrete grammatical points and vocabulary items to be tested, the performance assessment is still struggling between whether to test language ability or to test the ability to do "real-life" tasks. (Bachman, 2002).

Another problem is that designing, conducting and rating a performance test is simply too time-consuming. Just imagine giving an oral test to each of the 50 students and giving a vocabulary quiz

to a class of 50, which one is more efficient?

As standardized tests and entrance exams using the traditional format of testing are still dominant nowadays, there seems to be no other alternatives to replace them within a short period of time in terms of their validity, reliability and practicality. Yet this kind of tests unavoidably force teachers to train their students to become skillful in taking these tests; that is, the traditional multiple-choice tests.

With all the problems mentioned above, perhaps CALL could offer a key to these problems. With the advancement of multimedia technology, maybe a large-scale "standardized" performance test in the next decade would be as common as TOEFL today. Actually some researchers have already been working in this direction and the results have shed some light on the improvement of computerized task-based tests. Branden et al. (2002) discusses the possibility of using computerized task-based tests (TIBO) as a screening tool to determine whether non-native examinees' Dutch proficiency meets the requirement for entry to vocational training. The selection of tasks in the computerized test was based on the needs analysis from observations on the training floor, interviews and questionnaires. Four modules (language situations) were developed for the test, each consisting of a number of language tasks typical for the situation. Examinees were then tested on these computerized real-life tasks close to their future training program.

In short, using alternative assessment is the right direction to follow in the CLT paradigm, and the computer technology might be the most powerful drive to steer us in that direction.

8. Teachers as co-learners

In the CLT paradigm, teachers no longer stand for the sole knowledgeable authority in the classroom. On the contrary, teachers are supposed to learn along with students and must take part in the never-ending quest and model this process for their

students.

In terms of CALL, it is not enough only to upgrade the hardware for teachers, many other considerations need to be taken in order to help teachers as co-learners. After interviewing a group of teachers in the U.K., Bax (2003) found that “although lots of money and time had gone into the equipment and furniture, all the other crucial factors in successful CALL has been ignored--training for teachers, administrative and pedagogical support, interaction into the timetable, and etc.” He suggested that, in order for teachers to understand and apply CALL better, teachers could engage in two types of studies: (1) *Ethnographic studies*: Which help to identify the many interlocking and overlapping factors and to target teachers’ efforts more precisely; (2) *Action research*: Which can help to identify barriers to normalization and ways of overcoming these barriers.

IV. Discussion

In the previous section, the incorporation of CALL into the CLT paradigm has been examined through each of the eight changes proposed by Jacob & Farrell. It has been found that CALL at the present stage can be satisfactorily fitted into the CLT paradigm. Furthermore, CALL seems to be promising in the second language education in the future with the advancement of modern technology.

However, there is still room for improvement of CALL in the CLT paradigm despite all the advantages mentioned in the previous section. In order to make the CALL environment a better place to implement the CLT approach, a number of conditions need to be taken into account in terms of the eight categories:

- (1) **Learner autonomy**: Learner training is essential for facilitating learner autonomy via CALL. Learner awareness of the teaching purpose is also important for successful CALL activities.
- (2) **Social nature of learning**: It needs

further efforts to improve students’ grammatical accuracy as well as fluency on CMC. The quality of CMC interactions and the teacher’s role in CMC also need to be taken care of carefully.

- (3) **Curricular integration**: It is no doubt that CALL is an appropriate tool to integrate across curriculums, or combine the four language skills in the language classroom. However, it is important to follow certain principles for what to integrate and how to integrate, in order to achieve the best teaching effects.
- (4) **Focus on meaning**: In addition to electronic communication, which has been proved to generate meaningful learner discourse, more efforts could be spent on the software to make it more communicatively-oriented, task-based and meaningful.
- (5) **Diversity**: Based on “multiple intelligences,” more software should be produced to take individual differences into consideration.
- (6) **Thinking skills**: Although email and the web provide many useful resources to improve students’ thinking skills, the teacher’s role is still very important in steering students in the right direction. Otherwise, students might feel overwhelmed by the enormous amount of information on the net and then get lost.
- (7) **Alternative assessment**: Computerized performance assessment is the hope for solving the mismatch problem between CLT teaching and traditional testing. However, this is still a fledgling field and there is a long way to go.
- (8) **Teachers as co-learners**: Teachers could engage in ethnographic studies and action research on CALL to better understand

and use CALL.

V. Conclusion

In this paper, the incorporation of Open CALL into the CLT paradigm is well justified. Moreover, the application of CALL in the second language education is seen as promising in the near future. Naturally, the next thing to follow is to think about how we are going to move from Open CALL to Integrated CALL.

As mentioned earlier in this paper, Integrated CALL occurs when the technology becomes “normalized” in everyday situations and appears to be “invisible.” Therefore, to reach that final stage, we must go through the first to the sixth stage of the seven stages of normalization in CALL: (1) early adopters; (2) ignorance /skepticism; (3) try once; (4) try again; (5) fear /awe; (6) normalizing; (7) normalization (Bax, 2003). Bax claimed that we are now in the fifth and sixth stages of the process of normalization. That is to say, the importance of CALL has been recognized, but many teachers and students are still nervous about it, and sometimes overestimate the power of CALL in language teaching.

To move towards normalization, we should neither worship the technology too much, nor should we ignore all the other crucial factors in achieving integration. It should be recognized that computers alone are not sufficient for successful implementation of CALL. The success in implementing CALL in an integrated fashion, however, lies in teachers and students themselves in addition to the advancement of hardware and software.

The paradigm shift in the second language education will continue to move on in the future. The CLT paradigm is one of the ongoing stages along the course. As CALL is considered as well integrated into the CLT paradigm, the next paradigm shift will definitely show a perfect fusion of the latest language learning theory and the “normalized”

CALL.

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