On Teachers’ Role in CALL—An Ecological Language Learning Perspective

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Teachers’ role in CALL (Computer Assisted Language Learning) differs from that in traditional language teaching and learning. In the current era of digital education, teachers should adopt a classroom oriented education approach and adapt to learner autonomy context. This study analyzes the necessary training for teachers so as to let them adjust to new roles accordingly from an ecological language learning perspective.

Keywords: CALL, teachers’ role, ecological language learning, learner autonomy

Introduction

Since the birth of Learner Autonomy Theory (Benson, 2001), teachers’ authority in traditional classroom surroundings have faced with huge challenges. Heated discussions on teachers’ career development and teaching theory have brought about indispensable innovation. Experts, scholars, and teachers started to raise questions on whether there should be such dichotomy of teacher authority and learner autonomy. Instead, they began to question if there would be certain degree of compromise in-between (GU, 2006). Does learner autonomy, if overstressed, mean a collapse of teachers’ authority? What measures should teachers take then?

The concept of CALL (Computer Assisted Language Learning) has been raised for several years. So far, there have been 751,000,000 netizens in China, the world largest population. In this context, the hardware for China’s CALL is rather mature. It is time to discuss what role English teachers should take in CALL. It seems that the computer and the teachers should do their separate jobs in coordination to achieve the highest possible working efficiency. But how to coordinate and to what extent should computer and teachers keep harmonious company with each other based on this postmodern industrial and technical innovation era? In the analogy of nature ecology and education ecology, how should human being as teacher and learner realize their role evolution has become an increasingly controversial and hot issue.

Teachers’ Role in CALL by Its Name

CALL is an abbreviation of Computer Assisted Language Learning. Besides, it has other names, such as CALI (Computer Assisted Language Instruction), CAI (Computer Assisted Instruction), and CAS (Computer Assisted Study). The further two belong to concrete computer assisted language teaching, while the latter two
are computer assisted teaching of various disciplines of upper categories. However, they are universal on that all are computer assisted, whether in their Chinese name \textit{jizhu} which is a subject predicate structure or their English name which is an attribute structure. Then what is the major issue in this \textit{zhu} or “assisted”? Undoubtedly, they are the teachers and students. In teaching activities, teachers and students are indispensable elements and cannot be discarded. Computers are one prerequisite for language teaching and therefore cannot replace teachers’ initiative. Teachers and students are subjects, not objects in education, without which “teaching” cannot exist. Computers, as created by human intelligence, are designed and intended for means and assistance. As Internet and online education have gained increasing popularity, compounds and phrases with such word root, such as Web Enhanced Language Learning (WELL), curriculum online (COL), and online courses, have gradually emerged (HE, 2006). The Internet has been gaining in significance in human lives and civilization process.

\textbf{CALL and Lectures in a Classroom Setting}

Undeniably, computers are one of the greatest inventions since industrial revolution. Designed after human brain, computers work much faster on fixed programs than human brain. Early researchers like Jamison, Suppes, and Wells (1974) regarded CALL effective as a supplementary educational resource in elementary education. Hartley’s study (1977) showed CALL is very effective in maths teaching in primary and junior schools. However, it does not necessarily mean computers can replace human brain. In its infancy, computers lag far behind human brain in complexity, maturity, and Emotion Quotient. It may well be centuries before it can catch up with human brain. It certainly relies on many factors, not limited to the status quo of researches on the structure, psychological and cognitive mechanism of human brain. Also it has aroused widespread controversy in ethics area.

The computer usage covers the following aspects—teaching, training, simulation, and programming oriented for specific problems. According to Learner Autonomy Learning theory, the less constrictions outer environment has, the more freedom learners enjoy and more effective learning is. However, the fact is not that easy (GU, 2006). There is a common pitfall that learning is a solely learner activity. We know that learning is a social activity and is therefore different from that of human being as an organism. In this sense, any activity conducted by a social being is related to various degrees of surroundings. Learning is a process with a co-participation of multi-entities, learner, educator, education resources, learning environment, learning subject, and culture. These entities account for part of learning activity and process, thus forming a stable triangle of learner, teacher, and computer. If any party of the three falls, the triangle will collapse.

Computer research and development is an integration of human mind reasoning and computer calculation speed. Some early studies, such as \textit{Computers and Thought} (Feigenbaum & Feldman, 1963) and \textit{Cognition and Thought} (Reitman, 1965), designed a series of universal processing models that can be applied to reading, spelling, mathematics, etc. In mid and latter 1990s, disciplines, such as philosophy, language, art, and social sciences, have emphasized more on cognition studies and adopted the latest research results of cognition in supervising computer research and development. Teachers’ role in the learner, teacher, and CALL triangle has been enhanced more than ever.
CALL From an Ecological Learning Perspective

In an Internet convention on knowledge ecology held in 1998, US scholar, Yogesh Malhotra, raised an ecological education view, i.e., Knowledge exists in ecosystems, in which information, ideas, and inspiration cross-fertilize and feed one another (Yogesh Malhotra, 1998, cited in HE, 2006).

CHEN Jian-lin (2006) claimed learner and computer formed a human and computer society in foreign language learning settings. He did not think computers are an outer element of this ecology system from an ecological perspective. Instead, it is an important part of the biology chain.

GU Yue-guo (2006) used and analyzed the first-hand data collected for five years from Internet Education College, Beijing Foreign Studies University to raise the following six-level structure and guiding principles—resource, service, process, monitor, quality, and efficiency. This is a birds’ eye view of current domestic Internet teaching and learning from an ecological perspective in biological education settings. With regard to teachers’ role, we think teachers can participate in any level of the total six.

First, resources can be classified into Internet resources provided by computers and that from teachers’ edition. Second, supporting systems could be also services provided by Internet operating parties or campus Internet centre maintenance staff. Teachers, as frontier educators, certainly have more say in assisting students in seeking out solutions yield in the process of studying and to provide first-hand service from an education market concern. Third, in process standardization and regulating system, teachers are required to design and master learning process according to students’ internal and external conditions plus students’ cognitive facts. That is one of the most interested areas in CALL, teachers’ essential kernel competitiveness. Fourth, in the process monitor system, teachers in collaboration with language lab faculty’s monitor play a traditional solution-provider role to help students predict their learning degrees and to therefore adopt accordingly and flexible teaching strategies for some specific problems in language learning that CALL cannot solve, e.g., Garden Path Sentence (FENG, 2004) that cannot be solved in machine translation or some idiom translations. Fifth, in the quality control and appraisal system, teachers as expertise would be certainly the most suitable one to stipulate evaluation criteria. This part is very important since it can verify whether the previous designs are effective or defective and to what extent that much. At last in efficiency and sustenance period, teachers should do certain design and written work to maintain and sustain learning fruits. From the above-mentioned analysis, we could see that although learner autonomy theory is one great innovation and progress made in education theory field, if once over emphasized, it will inevitably backfire like other things—to neglect other factors, such as environment and teachers’ role. GU Yue-guo regarded that some recent uprising of learner autonomy theory has over emphasized cognition activity as an innate learner motivation while ignored another important fact, i.e., learning itself actually is far beyond cognition activity itself (GU, 2006). Various creatures and living beings constitute the whole ecological circle in the world. Viewed from such ecological language learning theory, from social, political, economical, and cultural factors to family, parents, schools, classrooms, desks and chairs, teachers, students, and costumes are all individual elements influencing the learning process directly or indirectly. Meanwhile, the ecological system is a dynamic balance system composed of creature groups and their living environment. Note that the dynamic balance system itself is beyond animals, plants, organisms, and inorganics along the food chain or the food chain and nutritious level themselves. Moreover, it includes the interaction among different entities, the effects yielded from such interactions, the washback effects, and the energy flow in the whole process. This also applies to the
ecological system in a general sense and its ecological education subsystem. Currently, major themes like science, culture, ethics, and nature clash one another to produce unprecedented social ecological systems. In the education ecology subsystem and under the new background of digital education, teachers’ role as critical and essential in small-scale learning surroundings has been enhanced more than ever instead of compromised, compared with their traditional role of solution providers. Their current role is resource provider, supervisor, coordinator, designer, monitor, evaluator, and learning partner. In the education ecology subsystem, they interact and provide washback and knowledge energy flow with each individual entity. Obviously, this is more demanding than those nurtured with a traditional classroom teaching philosophy. Teachers, if without proper input of new knowledge, skill, and training, will not be eligible for their new role.

Training—Prerequisite for Ideal Teachers’ Role

One of the most urgent issues is how to realize ideal teachers’ role and what the prerequisites for current foreign language teacher team building are. Training for foreign language teachers revolves around and penetrates the six aspects of the education ecology subsystem. First, theoretical training mainly deals with psychology, cognitive studies, teaching methodology and studies on second language acquisition including motivation and learning strategies. Theory serves for a guidance of practice. Through learning various designs and strategies of teaching methodology, teachers can improve their teaching methods and form certain proficiency of judging and interpreting teaching practice. Second, knowledge based training on a technical sense is also indispensable. Quite a number of foreign language majors set relatively easy computer operation classes in their syllabus. The rapid development of information technology has raised technical barriers for quite a number of foreign language teachers. Lack of computer literacy is baffling and confusing. The human computer interface currently remains in a relatively low level in foreign language teaching profession. Human computer interaction is far from mature due to technical constrictions. Usually human will accommodate to computer. In most domestic foreign language departments, the multimedia teaching lab or language lab is not of high intelligence. Even those so-called advanced labs which boast of “simultaneous interpreting” function are limited to microphone plus recording function and multi channel technology. No wonder teaching effect will be influenced and even harmed to some extent after a couple of years’ usage. Some senior teachers lack basic computer operational literacy and some even cannot make Powerpoint slides. However, computer itself does not have thoughts. Only human beings endow computer with calculation abilities. Some young teachers of arts and humanity majors will not have that trouble of basic operations. But they encounter other barriers while making interactive courseware, such as Authorware, Frontpage, Dreamweaver, or Delphi. Similarly, websites which are beneficial for foreign language learning cannot get proper advertising and are therefore waste of resources, e.g., Hujiang English, an influential foreign language studying website, moodle.org (MO, 2006) which is free and based on Course Management System (CMS), www.putclub.org which is on training listening capacity, www.grammar.englishclub.com which is for grammar exercising, www.powa.org which revises writing and online library, www.ipl.org, etc. (YANG, 2005). The training courses cover how to integrate information technology and courses, the research, development, and application of CAL, the establishment of foreign language learner autonomy platform, the development of courseware, of three-dimensional textbooks, the integration of textbook resources and Internet, software development and course integration, etc.
Conclusion

Now that teachers’ role in CALL has been examined, then how to shift teachers’ role against the background of comparing CALL and conventional teaching methodology? Based on whether learner autonomy theory is outdated, how to orient classroom education to a new direction in the latest digital education era is becoming increasingly important. CALL in a social ecology surrounding should be introduced and teachers’ role in different phases should be analyzed for an ideal role realization. In this current information technology prime time, teachers’ role is not diminished, but enhanced unprecedentedly in aspects of ecological education. Foreign language teachers would be more aware of these changes, obtain enough training, and contribute more along the development of CALL.

References


