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Cultivating Creative, Cognitive and Collaborative Communications

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Abstract

On today's Knowledge Age fast track, the only constant change seems to be change itself. Fortunately, these changes can include creatively moving from blindly following directives to insightfully integrating resources, cognitively moving from regurgitating content to understanding processes, and collaboratively moving from teacher-centered dependence to student-centered independence. Additionally, today's educators in all fields are challenged to provide environments in which students can explore knowledge, solve problems, practice transferable skills, and make meanings for themselves. This paper presents and discusses three especially important aspects of teaching and learning pedagogies in today's global village: creativity, cognition, and collaboration. The pedagogical implications of these basic concepts apply to every content area, including English language teaching and education, the field in which this author is currently engaged.

Introduction

The research base for this paper is the work of Lev Vygotsky, a theorist and researcher in the 1920's and early 1930's whose developmental theories on the role of cultural learning and schooling have significantly influenced education today. His principal premise was that intellectual functioning is the product of social history. Moreover, human beings are products of their human cultures as well as of biology; and language is the key mode by which cultures are learned and through which verbal thinking is organized and actions are regulated. People learn such higher functioning from interacting with others around them.

An example of these interactions occurs at the Centre for English Language Communication (CELC), where this author teaches at the National University of Singapore (NUS). Here, English language communication skills are taught as a content as well as a process in courses in six of the university's nine faculties: Arts and Social Sciences, Design and Environment, Engineering, Science, Business Administration, and Computing. Courses are also conducted for graduate students in these faculties as well as in the remaining three NUS Faculties of Law, Dentistry, and Medicine and additionally in some of the institutes. Recently, a General Education Module (GEM) course, Sociolinguistics and Language Teaching, was also added, and there are plans to expand further in this area as well. Additionally, special programs are offered to specific populations.

Vygotsky also observed that effective teachers plan and carry out learning activities within learner's zones of proximal development [7]. These zones define the distance between a learner's current but constantly changing learning levels and the levels that can be reached with the assistance of tools, people, and other instructional aids. Learners also navigate by different routes and at different rates within the multiple, overlapping zones. The push, however, is toward upper, rather than lower, levels of competence; and the levels are not immutable. Instead, they constantly change as participants become increasingly independent at successively more advanced levels [1].

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Teachers at CELC help learners to develop their English language communication skills by using scaffolds such as who, what, when, where, and why questions as well as templates modeling different organizational patterns such as those, which are used in academic writing and oral presentations. Additionally, CELC publishes a biannual newsletter and *Reflections on English Language Teaching*, a journal, which serves as a research forum to help teachers cope with the challenges of cultivating creative, cognitive, and collaborative communications.

Furthermore, objectives of the courses offered by CELC are to help students to learn essential English language communication skills that will help to organize their critical thinking, writing, and speaking abilities. Regular staff seminars are also held to help faculty improve teaching skills and to share ideas, research, and experiences related to improving English language teaching. Abilities to cultivate creative, cognitive, and collaborative communications are core values that are increasingly important as CELC becomes more involved in e-learning and expands the base of courses offered to different faculties at NUS as well as to learners in broader contexts. Next, each of these three areas will be discussed individually.

Creative

First, creatively, when process skills are interspersed and concurrently internalized with content information in English language teaching or any other content area, dynamic lessons and activities can be designed; and these instructional designers need to focus on cultivating creativity in learners. In so doing, three levels of difficulties and stages need to be addressed. The first stage involves linking learning to the world of work and moving from using knowledge in one discipline to applying knowledge within disciplines. Providing training in English for specific purposes and helping to increase students' English proficiency in academically valued writing, speaking, grammar, and reading are two ways in which this is done at CELC.

The second stage deals with applying knowledge between disciplines to real world, predictable problems. It is especially important in the world today to prepare students to meet the expectations of prospective employers. Hence, CELC offers courses, which teach technical, business and software documentation communication skills to engineering, business, and computer science students respectively. Training is also offered in job search and oral presentation skills.

Finally, the third stage involves applying knowledge to real world, unpredictable problems. This is what true problem-based learning is about. In the real world, which more often than not does not follow a paint-by-numbers template, if students are not taught to color outside the lines, they may be in for a rude awakening. Two major problems in modern day education are: (1) that schools may not be able to provide an open learning environment to encourage students to exchange information with environments outside of school walls and (2) that education within the classroom cannot help students to transfer their knowledge and skills into real-life situations [3].

An example of directly transferable information is using websites, which connect students to actual world events. They can then actively participate, gain increased transferable knowledge, and become better prepared for lives outside of the classroom. Furthermore, they can become more motivated

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and see themselves as valuable contributors as well as creative problem solvers. This can help to increase awareness that many options and a wide variety of choices are available that can affect themselves and their families. There is also a powerful motivation to help them want to work more and not just accept what they have been taught, especially when they can find information that meets their specific needs. This was done in the critical thinking and writing course that this writer taught to first year engineering students this year. One of their tasks was to work in groups and research high risk industries in Singapore and then to write and orally present their findings to their classmates.

Similarly, in another content area, students could explore a website for a geographical location of their choice and role-play as community leaders, identifying problems and proposing beneficial solutions and policies. Another example would be to conduct research on patient histories and nutrition as well as exercise sources. Students could then further explore this information and role-play as doctors or health and fitness experts, explaining a patient's condition and prescribing wellness programs. These types of learning experiences would, therefore, help the students to explore knowledge, solve problems, practice transferable skills, and make meanings.

Cognitive

Secondly, when teaching English language communications or any other subject, three higher order thinking (HOT) skills [6] need to be nurtured because they are essential to individual holistic development. These skills include analogous thinking, which begins to develop at a young age and involves comparisons and analogies among separate events; sequential thinking, which emerges later when patterns are discerned between events and is commonly applied in mathematical questions involving numbers and patterns in series, and interpersonal thinking, the highest order of these three skills, which involves individual personal and social development. Some students are obviously stronger in some of these areas than others. It is thus important to know one's audience and to tailor-make instruction accordingly.

Educators need to be aware, too, of teaching and learning strategies, which are inherent in these thinking processes. It should also be noted that when using HOT skills, instructional outcomes are sometimes unpredictable because elements of uncertainty are introduced. In contrast, when students merely receive or recite factual information or employ rules through repetitive routines, lower order thinking (LOT) occurs [4]. This writer believes that it is important to give students the freedom to express themselves as opposed to penalizing them when they do not give answers that fit a predetermined mould.

Finally, to promote effective thinking skills, a learning experience should conclude with a teacher asking mediating questions, which assist students to be interactive and to reflect upon what has actually taken place and other choices that could have been made. Questions raised in this process, in CELC classes as well as others, could include:

1. What actually happened? Are you surprised by this outcome? Why? How did your assumptions and deductions differ from the actual outcomes? What do you think caused this discrepancy?

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2. What were your main objectives or goals? How could you do this differently to achieve outcomes similar to the actual ones?
3. Could your results have been different? What do you think you will try to do next in your subsequent assignments and projects?
- 4.

These questions have important implications because they allow students to see for themselves the process of learning, which has just occurred. They can also clarify communications and help to prevent misconceptions. Furthermore, active participants are empowered to take control of their own learning and to begin developing a vision for projects or tasks as well as an appreciation of the consequences of different actions, which can be taken. Priorities can subsequently be modified to achieve reasonable standards and to communicate findings, thus effectively using HOT skills in the processes of integrating analogous, sequential, and interpersonal thinking skills. Computers can also be an integral part of these communications, and e-learning is truly exciting and revolutionizing.

Collaborative

Thirdly, in this student-centered, not teacher-centered, methodology, teachers function as facilitators, encouragers, and resources, as needed, when learners work together to create products and provide solutions to problems. Proponents argue that collaborative learning in schools provides opportunities for students in large classes to interact on a smaller scale and prepares students for the “real world.” Effective, collaborative communications are also essential components of successful learning processes; and because “. . . no one knows it all; collaborative learning is not just nice, but (also) necessary” [1]. The predominant philosophical underpinnings of collaboration are for teachers to use a “coach approach” and to function as a “guide on the side” as opposed to being a “sage on stage.” Teachers can thus enjoy learning as well as teaching, a very good reason for changing from the traditional, transmission model. This, however, does involve change that everyone may not be ready to embrace, which is another reason why staff development seminars and professional growth activities can be so important.

Additionally, assignments can group students together to attain certain goals [2]; and “. . . interdependence promotes an atmosphere of joint responsibility, mutual respect, and a sense of personal and group identity [1].” Another reason that collaboration is really needed is because real-life problems are often too complex to be solved by one person; and many multifaceted options are usually available. Additionally, one often needs to collect a considerable amount of information and number of opinions and to apply multiple perspectives. Students in the critical thinking and writing course currently being taught by this writer worked in teams to research, write, and present their projects and responded very favorably to this learning methodology, which they said was very different for them.

Moreover, the crux of this learning involves a transformation of the way in which learning occurs. Students should also be provided with opportunities to make connections between different events and situations in order to nurture emotional as well as cognitive capabilities. Co-learners helping each other can, therefore, sometimes be better than a professional tutor, a very important motivator.

Furthermore, since collaboration involves people with different resources co-laboring together as equals to plan, achieve goals, reflect, and problem solve together, collaborative environments are those in

which people learn and are responsible for one another's learning, as well as their own. Typically, an emphasis is placed on team goals and team success, which can only be achieved if all members of the team learn the objectives being taught. Group process training, which is needed, includes (1) procedures such as grouping according to roles, skills, interests, or levels; (2) team-building, group dynamics, and explicit teaching; (3) structures including task assignments, resources' planning, and motivational incentives; (4) individual self-reflective evaluation as well as by peers in groups; and (5) teacher functions, which can include supportive, cooperative, maintenance, evaluative, and supervisory roles [5].

Students can also be asked to engage in group work and to present findings in a stock and flow diagrammatic flow chart [6] or mind map and a brief oral and/or written presentation or report. These English language communication process skills can be applied in any content area. By organizing research and thoughts into a visual pattern, they will learn to show interrelationships that emerge and increase abilities to keep track of causes and effects. Such presentations can also positively develop writing skills as well as abilities to map and effectively communicate concepts, encouraging coherent, critical thinking while solving complex problems. Using webbing instead of a traditional linear outline has been freeing to this writer as well as to many students that this writer has taught.

Moreover, group presentations can help participants to share a vision, develop a joint sense of purpose, and raise cognitive capabilities to higher levels. This simultaneously fosters the development of emotional as well as cognitive and linguistic sensitivities, all of which are especially needed when communicating with people from different backgrounds, and opinions. Extra efforts should be made to build the confidence needed for effective interactions with people who have a very wide variety of attitudes, backgrounds and opinions. Furthermore, students need support, motivation, and tangible as well as intangible rewards for continually increasing their abilities to cope with and conquer complex situations and problems as needed. Activities from web-based lessons in this research can be designed to help students gather and focus on information for their respective tasks. Opportunities are also being provided to help learners collaborate and share findings with each other, thus helping them to make meaningful, synergetic connections.

Conclusion

In conclusion, just as the Japanese carp, which is also known as the koi fish, can grow up to three feet long if placed in a large lake but will only grow to be two or three inches long in a small fish bowl, people, too, can grow according to the size of their world. Using creative, cognitive, and collaborative strategic processes can effectively enhance pedagogical practices in English language communications classes and, indeed, in any subject area in today's global village. Once one understands the theory, then the practical applications can follow using each of these valuable pedagogical means.

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