Title:

Using Contemporary Psychological Perspectives in Re-Understanding
Taiwanese EFL Development: Observations and
Implications for Tertiary Education

Author:

Joseph Anthony Narciso Z. Tiangco, Ph.D.

Bio

Introduction

Taiwanese society has put much pressure on itself to develop the EFL proficiency
within the country in the hope of gaining more access in the global arena of international
trade and commerce (Carey, 1998; Thompson, 2003; see also, Mok & Lee, 2001 for a
discussion on the higher education reforms in Taiwan as brought about by globalization).
To cope with the demands that accompany internationalization, awareness has been
growing regarding the importance of English language study for both social and
economic mobility. For some, it is a career-related necessity in order to gain prestige and
move up the corporate ladder. For others, it is like mining for gold especially in

consideration of what Krashen (2003) calls as the English fever that looms over the country. Hence, it is observable that learning English in Taiwan, as a foreign language, has become a fashionable trend and business other than studying it for scholarly purposes (Liu, 2002; Taipei Times, 2003). Alongside the developments in EFL teaching and learning that have been transpiring all over the country, pervasive issues can also be said to continuously persist. Sadly, these issues haunt Taiwan's efforts in internationalizing the potentials of its human resources (see Huang, 2003b; Huang, 2003c; Thompson, 2003; Taipei Times, 2002; Yiu, 2003; Yun-Ping, 2003). These issues pose a concern, not only for the parents and students themselves, but the whole educational system as well (Carey, 1998).

Specifically, the tertiary educational system in Taiwan partly carries the burden in internationalizing the potentials of its human resources (Tiangco, 2004). It plays a crucial role in the sense that it is responsible for preparing undergraduate students for future careers and in providing them with the necessary skills to become productive members of both industry and government. It is also responsible for providing continuing education programs such as courses in English for students with a college degree but would like to study the language further without embarking on a formal graduate or post-graduate EFL/ESL degree program. More importantly, the influence of globalization presents a challenge to higher education for it to provide relevant language training and education to promising Taiwanese in preparing them for global-competitiveness. Subsidies are being provided to those interested in pursuing post- graduate degrees in foreign countries. Obviously, all of these reflect the great importance the Taiwanese place on learning English as a foreign language (Baker, 2003).

Although the responsibility should really fall on the Ministry of Education and its general language program as a whole, but pressure is mostly felt at the tertiary level. Such pressure is evident in the increase in the number of Applied Foreign Languages Department in different tertiary educational institutions (Su, 2004). An increase demand for foreign teachers is also evident (Shu-ling, 2003). Moreover, preparing and taking standardized language tests such as the General English Proficiency Test (GEPT) and the Test of English for International Communication (TOEIC) have definitely become a routine for most college students. To every extent it has now even become a burden wherein teachers teach in order for students to pass the said tests (Chang, 2003)

Amidst efforts to create a national bilingual environment in the next few years to come (see, Oladejo, 2003), most Taiwanese students continuously grapple with the intricacies involved with vocabulary acquisition, the grammatical features of English, and the desire and preoccupation to develop an accent similar to native English speakers. Taiwanese technology, college, and university students are cut-off from the intellectual vibrancy involved in the critical study of the English language. Higher-order language skills are underdeveloped given the predicament that basic skills are not well-formed and largely remain unstable. And yet, high educational demands such as emphasis on tests and the crammed memorization of words are a reality for most students (Thompson, 2003). Little room is provided for intellectual flexibility that allows Taiwanese students to exercise creativity to test their capacity for intellectual reasoning using the English language. Consequently, the prevalent perception remains regarding the disappointing general English proficiency of some Taiwanese college students in spite of the high cost of learning, expensive books, and enrollment at expensive cram schools (Yiu, 2003).

Some of these students will later on become the next generation of teachers who are going to handle English courses in different levels, which Oladejo (2003) regards as not competent enough to teach English using the language itself as a medium of instruction. In connection to this, is it still worth pointing a finger as to who is to blame amidst the problems and issues identified?

The paper argues that perhaps a new outlook should be undertaken in Taiwan given the backdrop of the issues presented. Specifically, this outlook aims at a more theoretically grounded approach to EFL teaching vis-à-vis sensitivity to contemporary developments in psychology. The first part of the paper outlines the theoretical implications of the Information-Processing Theory and the Behavioral and Social Learning Perspectives. Within this context, the specific implications of these theoretical standpoints shall be discussed as it can be applied inside the EFL classroom. The second part of the paper focuses on anecdotal observations and recommendations in improving the plight of Taiwanese EFL development at the tertiary level within the framework of the theoretical standpoints presented.

Contemporary Psychological Perspectives and EFL Learning:
Implications to Taiwanese Learners

Background knowledge of psychology plays an important role in facilitating the processes involved in both language teaching and language learning (Bernardo, 1998; Chomsky, 2000; Clarke & Silberstein, 1987; Krashen, 1987; Krashen, 2003; Taylor, 1990; Williams & Burden, 1997). More importantly, knowledge of both the theoretical and practical applications of cognitive psychology to EFL/ESL learning and teaching can

definitely yield fruitful results (Barrow, 1990). Hence, it can be argued that psychology has a clear role in facilitating language development and teaching even within the context of EFL learning in Taiwan.

Taiwanese teachers handling tertiary EFL courses, therefore, should be made aware that the study of any language is not bound by a structural linguistic approach that is limited to syntax, phonology, and the memorization of vocabulary words. From a psycholinguistic perspective, it is equally important to understand how the mind acquires and processes linguistic information for use in communication (Deuchar & Quay, 2000). In relation to this, the study of English should not be detached from understanding how the mind is able to think and process information in the first place (Chomsky, 2000; Deuchar & Quay, 2000; Muter & Johns, 1985; Stemmer, 1999).

The Cognitive Psychology of EFL Learning:
Understanding the Information-Processing Theory

One of the most important models in cognitive psychology is the information-processing theory, which has grown popular through the years providing a comprehensible outlook towards mental life, cognitive processes, and human behavior (Bernardo, 1998). As far as the behavioral standpoint is concerned, although it still relatively enjoys popularity in usage, it has also come under attack from the seemingly justified criticisms of the cognitive movement in psychology (see, Leahey, 1980 for a detailed discussion on the criticisms regarding the behavioral perspective in psychology). The highlight of the model focuses on the comparisons drawn between the theoretical conception of the human mind in relation to computers, calculation devices, radio

transmission devices, and to communication theory.

The information-processing theory touches on the different aspects of human life, specifically such as the study of memory, learning, transfer of learning, thought-formation, creativity, problem solving and most importantly, language development (see, Medin, Ross & Markman, 2001; Neisser, 1967 for a more thorough discussion on the information-processing theory; see also, Bernardo, 1998 for a discussion on its specific implications to language learning). In regards to EFL learning and teaching, it also provides a viable theoretical framework that clearly and unsophisticatedly describes the process of language learning and its impact to the educational process (Cangelosi & Parisi, 2002; Kern & Warschauer, 2000).

To begin with, the English language, composed of its syntax, phonology and the vocabulary words comprising the language are forms of linguistic information. Linguistic information is processed by the mind just like any other information vital to the survival of an organism (de Saussure, 1959). Therefore, linguistic information used in everyday communication can be understood as information broken down into linguistic signs – both visual and auditory – which are processed by the mind for whatever intended use (Chandler, 1994). The model accounts for the input, processing and output phases involved in generalized forms of learning (see Neisser, 1967). It is best to even begin by saying that language is not simply acquired but instead developmentally learned as an enduring process (Barrow, 1990; Chomsky, 2000; Krashen, 1987). Simply put, the capacity for human language is a learned behavior mediated by cognitive processes. The information-processing theory can be broken down into the following to describe further its salient characteristics: *Sensory/Information Input*, *Processing*, and *Output*.

Sensory/information input. Any form of physical energy or stimulus that stimulates the sensory organs of the human body can be regarded as sensory information (Plotnik & Mollenauer, 1978; Stemmer, 1999). This physical energy or sensory information is then transformed into electrical impulses and transmitted to the brain via the afferent nervous system. The input phase of the model describes the inward flow of information ready to be processed by the brain. For example, as one read the words on this paragraph, the different lines and markings that compose the alphabet of each word can be called the stimulus or physical energy that stimulates the visual sensory receptors. The eyes receive these markings as a form of linguistic information. Through the auditory sensory receptors, auditory stimulus can also be received as a form of physical energy. The linguistic information that stimulates the visual and/or auditory sensory receptor(s) is then broken down into electrical impulses transmitted by the afferent nervous system from the senses to the brain (Plotnik & Mollenauer, 1978).

Processing. As soon as the information, which is in the form of electrical impulses, reaches the brain, several functions act upon it interdependently (Chomsky, 2000). The processing aspect of the model relegates to a myriad of brain activities meant to act upon the received information in the same manner as how a computer processes information (Neisser, 1967). Examples of processing involves stimulus recognition, encoding in either the short term or long term memory system or in both, perception, memory recall, and other higher mental faculties such as thinking, thought formation, creativity, and problem-solving (Medin, Ross & Markman, 2001; Taylor, 1990). Given the nature of the stimulus received during the input phase and the needed mental function to process the information, reaction time varies depending on what is needed for a particular situation.

Persons of different age, sex, cultural, and ethnic background vary in the level of cognitive development as manifested in how they may give meaning to sensory information (Chomsky, 2000). Continuing with the earlier example, the words on this paragraph are linguistic information that can be broken down into smaller elements that are processed by the brain. Stimulus recognition takes place in recognizing the elements that comprise a particular alphabet. When put together these elements are then recognized by the brain as a group of alphabets comprising a word. The processing of information goes beyond mere stimulus recognition. The recognized words are given meaning depending on existing information in the short term or long term memory system. Consequently, higher mental processes are also utilized such as thinking, analyzing, etc. as part of the process of semantically organizing the stimulus being recognized. Depending on several factors, meaning is then produced in making sense of the paragraph.

Output. The resulting cognitive, affective, and behavioral disposition of a person can be regarded as the output (Neisser, 1967). As the brain processes the information, the end result of the processing phase is carried from the brain to the different parts of the body through the efferent nervous system (Plotnik & Mollenauer, 1978). Examples of such an output range from the production of internal mental/symbolic images to signify understanding or the lack of it, the actual mental manipulation of the said mental/symbolic images towards a desired result, affective dispositions such as anxiety, happiness, or fear as associated with the processed sensory information, and observable behavioral changes and movements displayed by the person (Medin, Ross & Markman, 2001). A mere frown signifies the output phase as a reaction to an inability to fully comprehend the meaning being conveyed in the earlier paragraphs.

Using a computer as a model in further discussing the information-processing theory descriptive of the human mind, linguistic information or any other information is always processed as it is stored in the memory systems. First of all, the long-term memory system resembles the hard disk of the computer and the short-term memory is like the Random Access Memory system (RAM). The goal is to properly store the information and make sure that it is not easily forgotten or lost in the storage place (Medin, Ross & Markman, 2001). Thus, forming a semantic network facilitates in storing linguistic information that is not isolated from other linguistic information (Kern & Warschauer, 2000). The creation of knowledge networks involves the establishment of linkages among individual linguistic information in a way like the structure-mapping of knowledge (see Gentner, 1983). As more linkages are created the semantic network develops towards the full production of meaningful knowledge structures within the mind (Feldman & Ballard, 1982; Gentner, 1983; Siskind, 2000). In other words, a schematic network is created and developed that facilitates in the communication process and in enabling a person to derive meaning from everyday experiences that enhances learning (Kern & Warschauer, 2000; Kurcz, 1984).

Retrieval of linguistic information from the various memory systems affects the retention of information and even the production of meaning (Neisser, 1967). In the process of retrieving the information, it entails that the linguistic information is used for the production of meaning and understanding as manifested through any process of communication (Medin, Ross & Markman, 2001). Thus, learning is reinforced through frequent retrieval of the linguistic information from the long-term memory system even towards mastery. Opportunities, therefore, should be created to enable learners' frequent

use of the linguistic information that they have stored in their memory systems. Through the output phase, the linguistic information is retrieved to enable the learner to interact with one's environment and enable communication.

Applying the Information-Processing Theory Inside the EFL Classroom: Re-thinking the Taiwan Experience

Using the information-processing theory, the very first concern is in developing the ability of the Taiwanese learner to achieve success in the sensory recognition and pattern encoding of linguistic information. These tasks focus on the different phases of the model. In relation to this, cross-cultural comparisons can also be drawn between the model and the Confucian culture of learning evident in Taiwan (see also, Robertson, 2002 for a discussion on the influence of Confucianism on education as evident in Korea). The Confucian saying, "I hear and I forget, I see and I remember, I do and I understand," definitely has a place in discussing certain points in the information-processing theory and in being sensitive to psychological processes characteristic of the Chinese people.

Yeh (2003) observes that Taiwanese EFL students have a stronger visual tendency as learners compared to their capacity for processing auditory information and even in the display of conversation skills. It should be remembered though that minimum proficiency in the use of any language ought to be manifest in the development of language skills: listening, speaking, reading, and writing. These skills, in fact, complement one another reflective of the mind's ability for holistic rather than compartmentalized language development.

As Swain (1987) argues, successful information encoding in language acquisition and development is often characterized by an approach that develops skills in listening

and speaking and reading and writing across the language curriculum. Emphasis on the co-dependence of each skill is important if an attempt is desired towards whole language development. Sadly, it is only in recent years that most Taiwanese teachers have begun to accept the importance of listening and speaking alongside the traditional emphasis on reading (Huang, 2003a; Peng, 2003; Yiu, 2003). It is also worth mentioning that the tendency now is to emphasize communication-centered skills (see, Liao & Chiang, 2003), which can result to the underdevelopment again of the other language skills.

For most Taiwanese EFL college students, reliance on mere listening to a lecture often result to forgetting and even the obvious difficulty in making sense out of what is being heard. On the other hand, more confidence is exhibited during reading exercises. But this confidence does not necessarily reflect success in comprehending a given reading material (Chang, 2003). Through reading, visual linguistic information is processed faster by Taiwanese EFL learners with the aid of a translation device or dictionary. There is a clear attempt to input the information into the mind but the question remains whether they are effectively able to encode and retain the linguistic information in the different memory systems given their dependence on such devices. In fact, there is an aberrant tendency to passively rely on such devices in the mere translation of words without actively engaging students in the production and retention of meaning. The dependency on the dictionary, therefore, has defeated the purpose of allowing it to serve as a secondary reference. The main storage place for vocabulary word building is the mind as developed within the human memory system. I would like to speculate that perhaps, the students perceive reading comprehension as an activity undertaken through external meaning production as though the dictionary/translation device is the main

repository of knowledge and understanding. These devices are aids or tools and these should not be mistaken as the foundations of genuine understanding. Consequently, Huang (2003) observes that most university students in Taiwan find it difficult to comprehend even general texts in English. Furthermore, they are below the 3,000 word threshold for TL proficiency. The idea of, "I see" may result to "remembering" as in the case whenever they see the Chinese translation of the English word that they are studying, but again, it is still different from the development of meaning or understanding.

On the other hand, since listening is an underdeveloped skill, it is often perceived as more difficult. Listening to auditory linguistic information is compounded by the actual presence of a speaker, which creates anxiety on the part of the listener especially when they try to communicate with a foreigner (Tiangco, 2004). Liao and Chiang (2003) observe that this must have something to do with the keen emphasis on grammar during senior high school even for conversation classes. The students are conscious about syntax but less able to express words that supposedly represent their ideas. This approach has hindered the students from being able to freely use words to represent experiences and ideas since the traditional practice is to emphasize grammar usage even during conversation exercises. This also reflects a consistent preoccupation in teaching students textbook English even in listening courses in order to prepare them for the test culture within the country (see, Chang, 2003). As a result, the students are not able to fully develop a foundational TL semantic structure enough to allow them to understand what they are hearing (Teng, 2003). Auditory linguistic information is assimilated into the mind but not much meaning making is undertaken resulting to a difficulty on the part of the listener to complete the communication loop (Tsai, 2003).

From a theoretical standpoint, the paper argues that EFL teaching should attempt at ensuring that both visual and auditory linguistic information are assimilated and well encoded into the long-term memory system through elaborate rehearsal and that Taiwanese EFL learners should be made aware that the encoded information can be consciously developed into an organized semantic structure. Specifically within the Taiwanese context, Tsai (2003) also asserts the same importance in integrating cognitive psycholinguistics in enhancing both EFL teaching and learning. The following are more specific considerations:

Learning is Developmental: A Response to Rote Memorization

In consideration of Taiwanese EFL learners within a developmental framework, the ratio of inputted information should be slightly less than the processed information and the information retrieved for use and practice in the output phase. Lesson, course, and curriculum programming plays an important role wherein each element should be situated within a framework sensitive to cognitive development. In Taiwan, there is an aberrant tendency to cram information inwards into the mind of the learners without giving them adequate opportunities to use or apply the said words to form meaningful sentences (Tiangco, 2004). Wang (2003) even observes that some students memorize words without even knowing how to pronounce the said words. All the more, it is in question whether these same students really know the meaning and the different context-specific use of the words. A long list of vocabulary words can usually be found on their notebooks, which they attempt to memorize without truly understanding the meanings of the word. As Peng (2003) avers, Taiwanese teachers are notorious for emphasizing rote

memorization.

Such an approach only leads to information overload and the eventual experience of having a mental block as an attempt is undertaken to retrieve the information. Just like a computer the mind stalls in such an event resulting to an impediment in the smooth flow of information processing and retrieval. Moreover, such an approach makes the study of vocabulary words isolated from the production of genuine comprehension and understanding since it only develops lower levels of mental processing. Memorization is important but more scientifically significant is in understanding how the mind actually processes information by creating semantic structures towards the production of meaning (see Vygotsky, 1986; Barrow, 1990). It is pertinent to develop higher-order cognitive processes that cannot be achieved through rote memorization.

As a response, the frequent use and retrieval of the linguistic information through oral and written communication exercises are more important than overloading college students with vocabulary words to memorize (see also, Honeyfield, 1987). The acquisition of vocabulary words is a lifelong process. At the very least, a sound foundation should be established to permit higher order forms of learning. A developmental language curriculum should emphasize opportunities for frequent retrieval of the encoded linguistic information not just through tests but other creative strategies as well not usually encountered in a traditional Taiwanese classroom. As long as the foundations of TL learning are stable, students can advance step by step into higher order learning (Singleton, 1999). It can be observed that some Taiwanese college and university students majoring in English with low proficiency of the TL are enrolled in highly content-based courses even on their freshman year. Other students in their junior or senior

year have to grapple with highly-specialized courses such as World Mythology, Linguistics, Principles of Teaching, etc. using thick textbooks in English, which they are not really able to understand. Consequently, they learn these content-based courses with teachers using the native language as a medium of instruction. As this happens, the issue goes back to learning the English language using the Chinese language and its worldviews.

Failure in providing stability in the foundations of language development can result to difficulties in enabling the learner to fully advance in their study of the English language. Such difficulties are clearly manifested in the inability of the learner to achieve success in using skills in listening, speaking, reading, and writing. The proper development of these skills is held back in the process. As these skills are underdeveloped, the learners' confidence judgment in using these necessary skills is also consequently affected. It is worse when the learners' EFL semantic structure collapses due to high anxiety often resulting to an inability to display even basic proficiency (see, Liao, 1999). A considerable number of Taiwanese EFL learners tend to engage in self-defeating thoughts truly signifying the lack of confidence (see also, Wang, 2003). As also previously mentioned, most of them easily get intimidated with foreign native speakers or peers who display EFL/ESL proficiency, which often adds to the experience of anxiety (see, Cheng, 1997).

Weak language foundations consequently result to inadequate language learning that hinders TL learning advancement. And yet, competitive demands are in place for the Taiwanese to face if they would like better career opportunities through the mastery of English. To cope with such a predicament, the Taiwanese spend more by studying in cram

schools, which is phenomenally popular in the country (Liu, 2002). Most of them turn to these privately owned language center for their EFL learning needs wherein the presence of foreign native speakers is highly valued. A perception has been created that successful EFL learning is best achieved through the language centers and not in formal schooling. This shouldn't be and this is a wake up call in regards to the effectiveness of the current strategies being employed within the different formal learning institutions (see also, Thompson, 2003).

Learning is an Organized Activity: Enhancing by Organizing the Memory Systems

Since it was mentioned that knowledge production involves semantic organization, then some housekeeping can prove vital in the learning process. Just imagine a messy room as the memory systems of the human mind and the things scattered around the room as elemental information. Retrieval is definitely going to be difficult if in the first place one does not know where to find the needed information or even determine where to start looking. Therefore, it is salient to organize and to learn strategies in effectively storing and retrieving information (Hong & Huang, 1998). Learning techniques and strategies to improve the retention of the linguistic information in the memory systems are equally as important as studying listening, writing, speaking or reading (Huang, 1997). These techniques such as mnemonics, elaborate rehearsal and the development of psychological scripts are crucial in ensuring that the linguistic information being studied by the students are permanently stored in the hard disk of the human mind (see, Medin, Ross & Markman, 2001 for a discussion on the various cognitive techniques used for enhancing and organizing the memory systems). Although Teng (2003) noticed no

significant difference between Taiwanese EFL students who received listening strategies similar to the techniques mentioned and students who did not receive training in the strategies as measured by their listening performance, it can be argued that memory systems organization does not take place as a one shot deal. Huang (1997), Hong and Huang (1998), and Yeh (2003) have a different set of observations with their Taiwanese research samples in contrast to Teng's (2003) research outcomes. It can be argued then that enhancing the memory system is part of developmental learning that emphasizes consistency and theoretical consolidation across the different courses encompassed by a developmental curriculum.

Asides from this, organizing the different memory systems used to store linguistic information is also important to facilitate in the retrieval process and in minimizing interference among inter-language information. Paying attention to the organization of the encoding-storage-retrieval processes facilitates in minimizing "Chinglish" phenomenon. By means of developing and organizing independent language memory systems such as an English memory system and a separate Chinese-Mandarin or Taiwanese memory system, any linguistic information that is encoded can be filtered for storage in the most appropriate memory system. Thus, bilingual or multi-lingual communication can be undertaken by retrieving information from the particular memory system the information has been stored in. Purposively developing each memory system independent of the other can minimize inter-language problems (Selinker, 1992).

Learning is a Conscious Endeavor: The Role of Metacognition

The metacognitive domain is another important aspect of language development that

both Taiwanese students and teachers should be aware of (Yeh, 2003). Metacognition refers to learning about the learning process (Bernardo, 1998; Medin, Ross & Markman, 2001). Taiwanese students should be made aware as to how they process information to enable them to understand how they think (Tian, 2004). By doing so, the students shall be equipped to regulate their own learning and seek strategies that they think best responds to their learning needs as they grapple with the English language. This awareness facilitates in enabling both students and teachers to understand their own learning styles and strategies (Taylor, 1990). Moreover, it helps teachers and students understand individual differences and similarities in the processing of information (Huang, 1997). Developing metacognitive awareness can also be undertaken in relation to the earlier section on, enhancing by organizing the memory systems. Consciousness can be developed regarding the possibility of creating a memory system for English study, which is apart from their Chinese domain knowledge. Theoretically, it should be noted that these memory systems do not necessarily function independent from one another. Metacognitive awareness for this part focuses more on a consciousness of memory housekeeping. It should also be remembered that the application of metacognitive theory is not only for this area alone. There are other applications as well such as awareness of language learning strategies, learning styles, environmental factors that facilitate learning, etc. Specifically, Chen (1998) investigated the area of metamotivation in learning English among Taiwanese students. On the other hand, Chang (1998) studied the different learning styles of Taiwanese students. Hence, helping students develop metacognitive awareness encompasses different applications in the learning process.

Learning has a Heart: Understanding the Affective Domain

The affective domain of language learning is also important (Bernardo, 1998). Emotions have a way of either facilitating or hampering learning (Krashen, 1987). The presence of emotional anxiety keeps us on our feet ever alert to respond to the external environment. Too much anxiety, on the other hand, significantly blocks the learning process (Taylor, 1990). Anxious learners are not able to assimilate information nor are they able to retrieve the needed information to perform a task (Liao, 1999). Consequently, the presence of anxiety influences the learners' motivation to learn and the very process of learning itself (Krashen, 2003). Su (2004) mentions, learning English ought to be pleasurable in sustaining the motivation of Taiwanese students to learn EFL. If college students often encounter unrewarding learning experiences, it is not surprising that their interest to study is affected in the process. This assertion is definitely applicable to Taiwanese students as also observed by Cheng (1997), Chen (1998), Liao (1999), and Tiangco (2004).

In relation to this, it is important to equally emphasize an atmosphere of collaboration among the students instead of competition (see, Baker, 2003). Academic competitiveness is a trait observable among some students given the demands that Taiwanese parents place on their children. Research also indicates that this push from the parents often result to school phobia and much experience of study-related anxiety (Cheung, 1986). Although competitiveness is a prized trait, the sense of academic achievement among the students should not be devoid of developing a nurturing educational environment. By creating an atmosphere conducive to cooperative learning, the potentials of the students can be better realized. Furthermore, there seems to be a need

to re-orient the achievement expectations that parents have towards their children. The teachers, on the other hand, should learn how to connect with their language learners more (Horwitz, 1999).

Behavioral Psychology and Social-Environmental Learning:
Implications to EFL Learning in Taiwan

As equally important perspectives in psychology, the behavioral perspective and social learning theory cannot be considered as outdated especially in consideration of its implications to education (Bustos & Espiritu, 1996). There is a clear use for the behavioral perspective other than its application in the practice of rote memorization, audio-lingual repetition, and the traditional behavioral approach to role-playing. Given that learning can be understood in different ways as reflected in the multiplicity of educational theories, the behavioral standpoint specifically emphasizes conditioning, reinforcement, stimulus response, and the strong influence of both social interaction and the environment as determinants of learning outcomes. In this perspective, the use of language is viewed as a learned behavior (Clarke & Silberstein, 1987; Wolfson, 1998).

Within this framework, weak TL learning can be understood as a form of faulty learning. If a student attempting to learn a particular language fails in doing so, the behavioral perspective views the shortcoming in terms of an inadequacy in the language training being provided or certain learned behaviors on the part of both students and teachers that hinder the learning process. As an example, the association between the linguistic sign and the thing being signified has not been strongly forged. Poor stimulus-response conditioning can also typify students who give the wrong response for a given

linguistic stimulus such as saying, "I am fine" when asked, "How is the weather today?" Furthermore, the lack of proper learning reinforcement is another consideration. Students may passively commit grammatical errors in both written and oral communication since some of these errors are tolerated within the learning environment given the absence of a reward or punishment system.

On the part of social-environmental factors that hinder the learning process, poor modeling on the part of the teachers and the lack of a social learning environment that approximates the environment wherein the TL is used are important social learning considerations (Williams & Burden, 1997). As the development of a first or native language is largely a social activity undertaken by the native speakers of the language within their social and environmental context, it proves helpful to manipulate aspects of the EFL learners' environment to approximate an environment wherein the TL is used.

In connection to this, behavioral modification can be introduced in the learning process to manipulate learning outcomes to achieve desired results (Bustos & Espiritu, 1996). The modification process specifically pertains to undoing or unlearning improper behaviors that hinder the process of language learning. Doing so includes modifying learning conditions such as the educational system and the elements that constitute this system. By working on the elements external to the learners themselves such as the teachers, the learning environment, and the other important aspects of the educational system, the modifications undertaken indirectly trickle down as positive learning outcomes for EFL students (Williams & Burden, 1997; Wolfson, 1998). The following are the specific implications of both the behavioral and social-environmental perspectives to EFL learning in Taiwan:

Social Learning and Emphasizing English as a Medium of Communication

Improving Teacher EFL Proficiency for the Benefit of the Students: A Social-Behavioral Perspective

As Oladejo (2003) observes, since some Taiwanese teachers themselves handling English courses are not communicably proficient enough, not much can also be expected from the students. This is particularly observable among teachers in the rural areas of the country given the unequal distribution of educational resources and learning opportunities in spite of the fact that Taiwan is a relatively small country with a very progressive economy. Although this is the case, it does not necessarily mean that nothing can be done to improve the situation as the Ministry of Education has been seeking ways to augment the current concerns that befall the system.

It can be argued that teachers from colleges and universities in the metropolitan areas of Taiwan display better proficiency compared to their counterparts from the rural areas. In a study that involved selected Taiwanese college and university teachers who belong to different Applied Foreign Languages Departments, Chang (2002) found out that most of these teachers expressed the readiness and willingness to handle English conversation courses. If this is the case, then it is very important to provide Taiwanese teachers every opportunity to further practice their English communication skills. Regardless of the location – whether urban or rural, the paper argues that more opportunities should be created to strengthen the use of English as a medium of instruction and as a medium of communication among students and teachers not only during EFL classes but outside formal instruction as well.

In connection to this, opportunities should also be institutionalized to provide Taiwanese teachers handling English courses more time to communicate with their foreign colleagues to enhance their English skills. Weekly professional activities such as discussion groups, research forums, and collaborative researches involving the Taiwanese and foreign faculty members are effective strategies for creating such a necessary environment. In the process, the Taiwanese teachers are able to sharpen their English communication skills, which in return shall be beneficial to the students.

Hence, an environment of collaboration instead of individualism is instrumental. As Baker (2003) argues for the importance of collaboration among students, I would like to argue for strengthened collaboration among faculty members even at the tertiary level in spite of individual busy schedules. Furthermore, given the growing cross-cultural and sub-cultural diversity in the foreign languages departments in Taiwan, it is a challenge to make the apparent cultural differences work to the advantage of the department, among colleagues, and especially the students. Although Chinese culture at times perceives the presence of foreigners as a nuisance (see, Bond & Hwang, 1986 for a discussion on the social psychology of Chinese people), the flux of foreign teachers signifies the need to strengthen cross-cultural cooperation. On the part of the Taiwanese/Chinese, mutual cooperation and tolerance can go a long way in providing successful learning outcomes for all the members of the system. On the other hand, foreigners should remember to always exercise sensitivity and even restraint in confronting cross-cultural or sub-cultural idiosyncrasies in the workplace. By developing an organizational attitude and workplace atmosphere that emphasizes and rewards cooperation, some foreigners need not be looked upon as a nuisance nor should some of their local counterparts be regarded as

uncooperative.

Improving the EFL Proficiency of the Students: Re-thinking the "English Only Policy" and The Use of English as a Medium of Instruction for the Taiwanese

For most Taiwanese tertiary students, the study of English is usually limited to the formal discussions inside the classroom and some occasional extra-curricular activities that require students to speak the language. Students often perceive the classroom as a place for evaluation, which tend to create anxiety especially among those who lack the confidence to speak.

Opportunities to communicate in English outside the classroom can be very beneficial to the students. Particularly, if both foreign and the Taiwanese English teachers make it a habit to communicate with their students using English during informal encounters, then the use of the TL can be reinforced. An EFL atmosphere is strengthened between the students, the teachers, and even perhaps among the students themselves.

Taiwanese teachers handling English courses have a bigger responsibility in reinforcing the use of the TL since they have more opportunities to interact with the students compared to the foreign faculty members. It is equally important to emphasize that doing so is not simply the responsibility of faculty members handling courses that involve oral communication. All faculty members, as much as they can, should be enjoined to develop the skills of the students inside and outside the regular classroom.

Perhaps, this assertion may not be new especially in consideration of the usual, "Speak English Only Policy" that most schools try to implement. And yet, it is in question whether such a policy does exist among Taiwanese tertiary institutions or

whether it is successfully being implemented. The paper presumes that success or non-success hinges on whether both students and teachers truly understand the theoretical considerations and foundations of such a policy other than telling the students that such a policy is being implemented. There is a tendency to pay lip service to the policy without truly understanding its implications to the psychology of EFL development. Therefore, creating awareness, understanding, and advocacy for the policy plays an important role within the EFL educational system. It can also be rather convincing to present to the students that such language learning strategies are actually the application of different theories important in the field of EFL, ESL, and ESP. In relation to the previous discussions, doing so relates to developing metacognitive awareness.

A bolder leap is to consider the gradual teaching of general education courses being taken by students majoring in EFL using English as a medium of instruction. This assertion is not without issues and criticisms. As far as the use of English as a medium of instruction in Hong Kong, Herbert (2002) observes difficulties among students particularly in understanding the textbooks and reference materials used in class.

In Taiwan, the very first concern is in regards to the preparedness of the teachers and second is in relation to the preparedness of the students. This is an attempt worth taking if an eventual shift is foreseen from EFL to ESL. As far as long term planning is concerned, every college and university should start preparing general education faculty members who can teach content courses in English. Adequate teacher training should be allotted for this task alongside the preparation and publication of a simplified English version of the readings and lecture discussions to be used in class. There shouldn't be a reliance on Western developed materials and English books. Instead, a challenge pervades to

indigenize English into the Taiwanese culture and not to simply assimilate foreign cultures as its own amidst the country's effort towards globalization. Hence, teaching modules across different subject areas such as mathematics, natural sciences, human sciences, history, etc. should be developed that reflects Taiwanese values and culture.

As Cates (1998) mentions, it is important for the Taiwanese to understand global issues and how language learning can contribute in realizing a better world. In spite of the need to prepare the Taiwanese for globalization, it is an equally important challenge to ensure the strengthening of their national identity as a people and their distinctiveness from the Chinese. Joseph (1999) argues for the need to foster a strong linguistic identity on the part of the Taiwanese people.

Asides from this, repeatedly emphasizing and reinforcing a set of vocabulary words throughout the curriculum are important challenges in developing the EFL program. The purpose is to provide the students frequent exposure to these vocabulary words to reinforce learning. Mastery is the key element given the repeated exposure to the stimulus being learned (Honeyfield, 1987). The students can be afforded the opportunity to read, listen, and speak the vocabulary words not just in one class but in other classes as well. Most importantly, vocabulary words should be connected to the lived experiences of the Taiwanese other than just being dense words decontextualized of true meaning. By doing so, the use of English as a medium of instruction is enhanced since behavioral programming is integrated in the process.

Creating an English Friendly Environment

The educational environment of the Applied Foreign Languages Department

ought to be English friendly. Since the main thrust of most of the AFL departments in Taiwan focuses on English teaching and learning, then it is important that the atmosphere itself in the department facilitates in the learning process. An effort should be undertaken to translate more organizational information from Chinese to English or to have a bilingual set-up. If the goal is to create an environment conducive to the TL study, then both intradepartmental and interdepartmental communications should shift towards the use of English as a medium of organizational communication especially for those majoring in this area.

It is also important to institutionalize extra-curricular activities that promote the use of the TL. As mentioned, learning the TL should not be limited to formal classroom instruction. Extra-curricular activities such as student clubs, organizing a newsletter group, organizing a school drama group or theater guild, etc. are all important strategies in creating an EFL friendly environment that allows the students to enjoy themselves. As an example, an acoustic guitar club can be organized for student musicians to learn popular acoustic songs that are in English. Moreover, these students can develop their EFL skills further by eventually composing their own songs and lyrics. Peer English tutoring groups can also be established. Outreach projects such as tutoring a minority or marginalized group or even elementary students can be undertaken by tertiary EFL students.

Re-Thinking the Traditional Role-Playing Activity: A Cognitive-Behavioral Approach

Role-playing is also definitely an important aspect in the development of English

language skills. In Taiwan, the traditional role-playing approach usually develops the reading and listening skills of the students involved in the dialogue being role-played. They are usually tasked to either read or act out a conversation script from the book. The problem though with such an approach is that it can be rather mechanistic especially if listening comprehension and high-order processing are not emphasized.

As a modification, role-playing should be more oriented towards the cognitive-behavioral perspective. The cognitive aspect focuses more in developing the problem-solving skills and creativity of the students, which are at times left out in the traditional role-playing approach. For college and university students, I suggest the use of what can be called as Spontaneous Situational Role-Playing (SSRP) with the aim of making the students retrieve previously learned linguistic information through guided free talk among the students themselves or with the teacher. The approach is characterized by describing to the students a particular situation that they are going to role-play. The students are given the task to think and anticipate the communication patterns accounted for by the situation. This is in contrast to the traditional approach wherein the students have a ready-made conversation script that they simply read out. In the process of utilizing the SSRP, the students develop their own communication patterns by writing down their own script based on a scenario or the situation given by the teacher. There shouldn't be heavy reliance on the conversation scripts found on the books of the students so that the students can be taught to be imaginative by allowing them to make their own scripts.

From a theoretical vantage point, the approach places the students in a situation wherein they need to retrieve previously encoded information and exercise creativity in

the transfer of learning to respond to the situation being role-played. Such an approach develops skills in listening, speaking and thinking. More importantly, it enables the practice of spoken language through the use of guided free talk and the enhancement of creativity on the part of the learners.

Recommendations

Based on the earlier discussions regarding the contemporary psychological perspectives and its implications to Taiwanese EFL learning, recommendations are presented for the following areas: a) Curriculum Planning and Implementation and b) Teacher Training.

Curriculum Planning and Implementation

Curriculum planning and development plays a very significant role in the educational process. The mandate of any educational program lies in its curriculum. Hence, the heart of whatever efforts there are to teach students EFL should be consolidated within the language curriculum and consequent language policies (Judd, 1987). A language curriculum provides the over-all direction for the individual language courses taught in a particular program. More importantly, the language curriculum articulates the end goal of the educational process and the steps by which to achieve success in developing the potentials of the students as language learners.

Often times, tertiary education is left with more autonomy to govern its own curriculum and programs compared to both elementary and secondary education. Less control is exercised over the learning process, which can result to the dissipation of a

clear purposiveness within the tertiary educational system of a particular institution. First of all, a language curriculum should be developmental in orientation taking into consideration both language and cognitive development and the present developmental capacity of the language learners. Second, a theoretical paradigm should support and consolidate the language curriculum, language policies, and the teaching strategies. This is meant to provide more organization to the different aspects of the curriculum. Although the selection of what may be considered as the most effective paradigm is a contentious issue, nevertheless, I would like to argue for the viability of the cognitive-behavioral paradigm in understanding the educational process. Third, an indigenized language curriculum should reflect the highest values of Taiwanese society and the values necessary to equip Taiwanese students at the tertiary level to become socially responsible individuals with a sense of national pride ready for internationalization. At the same time, it is also important for the language curriculum to develop their sensitivity to differences across cultures, and yet, strengthen the students' sense of being a Taiwanese who respects and accepts other cultures.

Teacher Training

I firmly believe that at the forefront of developing Taiwan into a society proficient in using the English language are the Taiwanese teachers and not the foreign teachers. As of now, much work has to be done to improve the English proficiency not only of the Taiwanese teachers handling English courses but also the other teachers as well who are handling general education subjects. The role of foreign teachers should be limited to temporary support and the long-term vision should be geared in developing the full

potentials of the present Taiwanese teaching force. I have observed that much of the training undertaken by foreign teachers is for the students. As far as long-term planning is concerned, improving the EFL/ESL competencies of most of the tertiary educators in Taiwan shall pave the way for the emergence of a bilingual/multilingual language system among tertiary schools. First, native teachers outnumber the foreign teachers. Taiwanese teachers have the bulk of classroom time. By using a multiplier effect, foreign teachers who focus on developing the competencies of the Taiwanese teachers are able to indirectly develop the language skills of more students. The full utilization of the professional resources available among educational institutions is a must and more importantly is to instill a culture of collaboration among the foreigners and the native Taiwanese to dispel any form of competition (see also, Oladejo, 2003). EFL learning is a shared responsibility among the teachers handling different courses. Although the burden of teaching English is placed on the shoulders of the English teachers, reinforcement of learning is achieved through a collaborative environment that involves all other members of the school community.

Conclusion

The paper argues that tertiary education has an important role in assisting students acquire, develop, and more importantly to refine their skills in using the English language. Taiwanese students regardless of their major or the discipline that they are pursuing should be given the same opportunities to develop their EFL skills to enable them to become more professionally and globally competitive. In doing so, the author proposes for the use of contemporary perspectives in psychology as a consolidating framework in

the development and implementation of the language curriculum. Taiwanese students do not have to spend so much money and time in learning the English language by going to cram schools or business-oriented language centers. The burden of ensuring optimum language learning and development should be undertaken by the formal educational system. Therefore, a re-orientation of the system presents a clear challenge not only to the administration but all the faculty members who are part of the system as well. Dependency on foreign teachers should not be created but instead collaboration can be instilled in developing the full potential of the Taiwanese teaching force with the vision of enabling them to bring about positive EFL development among the students.

References

A lot to learn about teaching English. (January 7, 2003). *Taipei Times*, p.8.

Baker, M. (2003). Collaborative learning within a competitive educational structure. In D. V. Rau, F. Y. Wang, & O. M. H. Chen (Eds.), *Proceedings of 2003 International Conference on English Teaching and Learning in the Republic of China* (pp. 17-30). Providence University, Taiwan.

Barrow, J. (1990). *Fostering Cognitive Development of Students*. Singapore: Jossey-Bass.

Bernardo, A.B.I. (1998). Language and the learning process: Insights from contemporary psychology perspectives. *Layag*, *3*, 1-22.

Bond, M.H., & Hwang, K. (1986). The social psychology of Chinese people. In M.H. Bond (Ed.), *The Psychology of the Chinese People* (pp. 213-266). New York: Oxford University Press.

Bustos, A., & Espiritu, S. (1996). *Psychological, anthropological, and sociological foundations of education* (Rev. ed.). Philippines: Katha Publishing.

Cangelosi, A., & Parisi, D. (2002). Computer simulation: A new scientific approach to the study of language evolution. In A. Cangelosi & D. Parisi (Eds.), *Simulating the evolution of language* (pp. 3-28). New York: Springer Verlag.

Carey, S. (1998). The national importance of ESL teachers in Taiwan. In J. Katchen & Y. Liung (Eds.), *The Proceedings of the Seventh International Symposium on English Teaching* (pp. 15-34). Taiwan: The Crane Publishing Co., Ltd.

Cates, K. (1998). Teaching for a better world: Global issues and language education. In J. Katchen & Y. Liung (Eds.), *The Proceedings of the Seventh International Symposium on English Teaching* (pp. 35-46). Taiwan: The Crane Publishing Co., Ltd.

Chandler, D. (1994). *Semiotics for beginners*. Retrieved May 17, 2002 from http://www.aber.ac.uk/media/Documents/S4B/semiotic.html

Chang, H. (2003). The attitudes toward teaching and testing listening comprehension. In D. V. Rau, F. Y. Wang, & O. M. H. Chen (Eds.), *Proceedings of 2003 International Conference on English Teaching and Learning in the Republic of China* (pp. 249-258). Providence University, Taiwan.

Chang, J. (1998). A study of Taiwanese students' language learning styles and their relationship to EFL proficiency. In J. Katchen & Y. Liung (Eds.), *The Proceedings of the Seventh International Symposium on English Teaching* (pp. 133-142). Taiwan: The Crane Publishing Co., Ltd.

Chang, S. (2002). A preliminary study of English conversation instruction at the universities in Taiwan. *English Teaching & Learning*, *27*, 17-50.

Chen, J. (1998). Taiwan college students' metamotivation in learning English. In J. Katchen & Y. Liung (Eds.), *The Proceedings of the Seventh International Symposium on English Teaching* (pp.241-252). Taiwan: The Crane Publishing Co., Ltd.

Cheng, M. (1997). The impacts of teachers' beliefs on students' anxiety about foreign language learning. In J. Katchen (Ed.), *The Proceedings of the Sixth International Symposium on English Teaching* (pp. 113-129). Taiwan: The Crane Publishing Co., Ltd.

Cheung, F. (1986). Psychopathology among Chinese people. In M.H. Bond (Ed.), *The Psychology of the Chinese People* (pp. 171-212). New York: Oxford University Press.

Chomsky, N. (2000). *New horizons in the study of language and mind*. United Kingdom: Cambridge University Press.

Clarke, M., & Silberstein, S. (1987). Toward a realization of psycholinguistic principles in the ESL reading class. In M. Long & J. Richards (Eds.), *Methodology in TESOL: A book of readings* (pp. 233-247).Boston, MA: Heinle & Heinle Publishers.

de Saussure, F. (1959). *Course in general linguistics* (Wade Baskin, Trans.). New York: The Philosophical Library (Original work published 1918).

Deuchar, M., & Quay, S. (2000). *Bilingual acquisition: Theoretical implications of a case study*. New York: Oxford University Press.

Feldman, J.A., & Ballard, D.H. (1982). Connectionist models and their properties. *Cognitive Science, 6*, 205-254.

Gentner, D. (1983). Structure-mapping: A theoretical framework for analogy. *Cognitive Science, 7*, 155-170.

Herbert, P. (2002). Learning in English: The survival strategies of Hong Kong students. *English Teaching & Learning, 27*, 67-76.

Honeyfield, J. (1987). Word frequency and the importance of context in vocabulary learning. In M. Long & J. Richards (Eds.), *Methodology in TESOL: A book of readings* (pp. 318-324). Boston, MA: Heinle & Heinle Publishers.

Hong, S., & Huang, S.C. (1998). Memory strategies used by non-English major EFL students. In J. Katchen & Y. Liung (Eds.), *The Proceedings of the Seventh International Symposium on English Teaching* (pp. 395-406). Taiwan: The Crane Publishing Co., Ltd.

Horwitz, E. (1999). Making connections with language learners. In J. Katchen & Y. Leung (Eds.), *The Proceedings of the Eight International Symposium on English Teaching* (pp. 47-54). Taiwan: The Crane Publishing Co., Ltd.

Huang, C. (2003). A comparison of vocabulary knowledge and reading comprehension between comprehensive and technological university students. In D. V. Rau, F. Y. Wang, & O. M. H. Chen (Eds.), *Proceedings of 2003 International Conference on English Teaching and Learning in the Republic of China* (pp. 127-140). Providence University, Taiwan.

Huang, J. (2003a, August 19). Poll asks English teachers about policy. *Taipei Times*, p.2.

Huang, J. (2003b, August 25). Learning English too early can hamper children. *Taipei Times*, p.2.

Huang, J. (2003c, August 28). Lawmaker says English material too hard for kids. *Taipei Times*, p. 2.

Huang, S. (1997). Learning strategies of memorizing a conversation text. In J. Katchen (Ed.), *The Proceedings of the Sixth International Symposium on English Teaching* (pp. 283-295). Taiwan: The Crane Publishing Co., Ltd.

Huang, S. (1997). Changes in freshman English programs for non-English majors at universities in Taiwan. In J. Katchen (Ed.), *The Proceedings of the Sixth International Symposium on English Teaching* (pp. 305-321). Taiwan: The Crane Publishing Co., Ltd.

Joseph, J. (1999). The construction of linguistic identity and the teaching of languages in the new millennium. In J. Katchen & Y. Leung (Eds.), *The Proceedings of the Eight International Symposium on English Teaching* (pp. 55-70). Taiwan: The Crane Publishing Co., Ltd.

Judd, E. (1987). Language policy, curriculum development and TESOL instruction: A Search for compatibility. In M. Long & J. Richards (Eds.), *Methodology in TESOL: A book of readings* (pp. 3-9). Boston, MA: Heinle & Heinle Publishers.

Kern, R., & Warschauer, M. (2000). Theory and practice of network-based language teaching. In M. Warschauer & R. Kern (Eds.), *Network-based language teaching: concepts and practice*. New York: Cambridge University Press.

Krashen, S. (1987). Applications of psycholinguistic research to the classroom. In M. Long & J. Richards (Eds.), *Methodology in TESOL: A book of readings* (pp. 33-44). Boston, MA: Heinle & Heinle Publishers.

Krashen, S. (2003). *Dealing with English Fever*. Paper presented at the Twelfth International Symposium on English Teaching. Retrieved December 15, 2003, from http://www.sdkrashen.com/articles/fever/

Kurcz, I. (1984). A model of language knowledge as related to knowledge of the world. In K. Lagerspetz & P. Niemi (Eds.), *Psychology in the 1990's* (pp. 133-161). North Holland: Elsevier Science Publishers.

Leahey, T. (1980). *A History of Psychology: Main currents in psychological thought*. New Jersey: Prentice-Hall, Inc.

Liao, P., & Chiang, M. (2003). The study of students' and their teachers' beliefs about English learning. In D. V. Rau, F. Y. Wang, & O. M. H. Chen (Eds.), *Proceedings of 2003 International Conference on English Teaching and Learning in the Republic of China* (pp. 65-76). Providence University, Taiwan.

Liao, Y. (1999). The effects of anxiety on Taiwanese EFL learners. In J. Katchen & Y. Leung (Eds.), *The Proceedings of the Eight International Symposium on English Teaching* (pp. 453-464). Taiwan: The Crane Publishing Co., Ltd.

Liu, L. (2002). *Studying English: A national obsession*. Retrieved December 20, 2003 from http://publish.gio.gov.tw/FCJ/past/02122071.html

Medin, D., Ross, B., & Markman, A. (2001). *Cognitive psychology* (3rd ed.). Florida: Harcourt College Publishers.

Mok, J.K., & Lee, M.H. (2001). *Globalization and changing governance: Higher education reforms in Hong Kong, Taiwan, and Mainland China*. Paper presented at the Australian Association for Research in Education 2001 Conference.

Muter, P., & Johns, E. (1985). Learning Logographies and Alphabetic Codes. *Human Learning*, *4*, 105-125.

Neisser, U. (1967). *Cognitive psychology*. New York: Appleton-Century Crofts.

Oladejo, J. (2003). Towards a cohesive national language education policy in Taiwan. In D. V. Rau, F. Y. Wang, & O. M. H. Chen (Eds.), *Proceedings of 2003 International Conference on English Teaching and Learning in the Republic of China* (pp. 203-214). Providence University, Taiwan.

Peng, H. (2003). Traditional textbooks versus authentic materials: A case study of adult learners. *Journal of Fortune Institute of Technology*, *10*, 459-461.

Plotnik, R., & Mollenauer, S. (1978). *Brain & behavior: An introduction to physiological psychology*. New York: Canfield Press.

Robertson, P. (2002). Influence of neo-Confucianism in Korean educational system. *Asian EFL Journal*, *4*(2). Retrieved November 13, 2004, from http://www.asian-   efl-journal.com/june2002.conf.htm

Selinker, L. (1992). *Rediscovering interlanguage*. New York: Longman, Inc.

Shu-ling, K. (2003, August 26). First overseas English teachers approved. *Taipei Times*. p. 3

Singleton, D. (1999). *Exploring the second language mental lexicon*. New York: Cambridge University Press.

Siskind, J. (2000). Learning word-to-meaning mappings. In P. Broeder & J. Murre (Eds.), *Models of language acquisition: Inductive & deductive approaches* (pp. 121-153). United Kingdom: Oxford University Press.

Stemmer, B. (1999) Introduction. *Brain and Language, 68*(3), 389-391.

Su, F. (2004). The surrender values of English study for lower achievers. Paper presented at the *7th Conference on Improving EFL Learning* (pp. 46-59). Taiwan: Fortune Institute of Technology.

Swain, M. (1987). Bilingual education: Research and its implications. In M. Long & J. Richards (Eds.), *Methodology in TESOL: A book of readings* (pp. 61-72). Boston, MA: Heinle & Heinle Publishers.

Taylor, I. (1990). *Psycholinguistics: Learning and using language*. New Jersey: Prentice Hall.

Teng, H. (2003). Teaching EFL listening strategies to college students in Taiwan. In D. V. Rau, F. Y. Wang, & O. M. H. Chen (Eds.), *Proceedings of 2003 International Conference on English Teaching and Learning in the Republic of China* (pp. 385-394). Providence University, Taiwan.

Thompson, G. (2003, September 6). Reform the ministry of education [Letter to the editor]. *Taipei Times*, p. 8.

Tian, S. (2004). Metacognitive awareness and strategy use of proficient and less proficient Taiwanese EFL readers. *Studies in English Language and Literature, 13,* 53-64.

Tiangco, J.A.N. (2004). Towards the indigenization of English learning and teaching at the Fortune Institute of Technology. Paper presented at the *7th Conference on Improving EFL Learning* (pp. 60-76). Taiwan: Fortune Institute of Technology.

Tsai, Y. (2003). Diagnostic analysis of listening comprehension problems: Ins or outs? In D. V. Rau, F. Y. Wang, & O. M. H. Chen (Eds.), *Proceedings of 2003 International Conference on English Teaching and Learning in the Republic of China* (pp. 515-532). Providence University, Taiwan.

Vygotsky, L. (1986). *Thought and language*. Boston, MA: MIT Press.

Wang, M. (2003). The comparison of the levels of phonological awareness for Taiwanese 6th and 11th graders in Kaohsiung. In D. V. Rau, F. Y. Wang, & O. M. H. Chen (Eds.), *Proceedings of 2003 International Conference on English Teaching and Learning in the Republic of China* (pp. 429-442). Providence University, Taiwan.

When to learn our ABCs. (2002, November 22). *Taipei Times*, p.8.

Williams, M., & Burden, R. (1997). *Psychology for language teachers: A social constructivist approach*. United Kingdom: Cambridge University Press.

Wolfson, N. (1998). *Perspectives: Sociolinguistics and TESOL*. Boston, MA: Heinle & Heinle Publishers.

Yeh, Y. (2003). Vocabulary learning with concordance for EFL college students. In D. V. Rau, F. Y. Wang, & O. M. H. Chen (Eds.), *Proceedings of 2003 International Conference on English Teaching and Learning in the Republic of China* (pp. 467-

476). Providence University.

Yiu, C. (2003, November 7). Students' English disappoints. *Taipei Times*, p. 2.

Yun-Ping, C. (2003, March 17). Students should begin English in grade three. *Taipei Times*, p.3.