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On the Appropriateness for Introducing an Early-start English Curriculum at the Primary Grades in Taiwan

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Abstract

To catch up with the global trend of promoting English education, a comprehensive English education program has been implemented to the fifth graders in elementary school since 2001 in Taiwan. Advocates of this policy often bease their argument on a strong conviction that younger children are superior to older children and adults in acquiring a second language. The aim of this paper is to discuss if 'the younger the better' belief is indeed true so that, under the extant educational environment of Taiwan, it can serve as a strong theoretical foundation for promoting an elementary English curriculum at the primary grades. The discussion of this issue will draw on neurological, cognitive and affective factors that are commonly considered highly related to second language learning. More importantly, in addition to these theoretical discussions, the findings of many empirical studies on the age issue will be reviewed to shed further light on our better judgment of whether an early-start stand can be considered appropriate. Since the new language policy asks students to start learning English at the primary grades rather than wait until they attend

junior high school, the main focus of the discussion in this paper will be on the comparison of adolescent and preteen learners. This paper will then discuss the problem of Taiwanese students' poor English competence from the perspective of the widely seen teaching practive in this country. Finally some implications and suggestions about how to make this new language policy work will be provided in order to best assist our students in learning English well. In so doing, hopefully the present paper not only can provide a better understanding of the appropriateness for introducing an English curriculum in elementary school, but may present a fuller picture of the complex nature about how a second language is acquired.

Key words: the critical period hypothesis, affective domain, cognitive development

INTRODUCTION

In today's world where everyone is considered a member of the global village, the English language has long been regarded as one of the most popular communication media among people speaking different mother tongues. We thus can find that promoting a better English-as-a-second-language (ESL) or English-as-a-foreign-language (EFL) education seems to be a worldwide trend. Taiwan is no exception. In fact, this matter appears to be a particularly urgent issue for her government to deal with because college students in Taiwan have often been criticized that after learning English as a foreign language for at least 6 years before attending college, the majority of them still have many difficulties employing this language to express themselves or even conduct a simple everyday conversation with native English speakers. In addition, they, compared with EFL students in many other countries who have learned English for roughly the same amount of time as they have, are frequently reported to have a poorer performance in some standardized tests such as TOEFL, thus showing great room for improvement. Accordingly, many parents and scholars pressed an immediate call for English curriculum reform and strongly urged the school authorities introduce EFL curriculum in the primary grades rather than keep the then-extant one in which English was not taught until students attend junior high school.

To catch up with the global trend of promoting English education and to meet the public's demand of EFL education reform, the Ministry of Education in Taiwan decided that a comprehensive English education program needed to be implemented to the fifth graders in elementary schools starting the 2001 academic year. On November 21, 2002, in a formal oral report to the Education Committee of the Legislative Yuan, the Secretary of the Ministry of Education, after having presented the language learning problems experienced by the pupil since the new policy was carried out for slightly over a year ago, further announced that it would be extended to the third graders in 2004 or 2005 academic year—depending on the availability of the teacher source and budget money. In fact, before this decision was made, many schools in urban areas had taken the initiative in having their students learn English since the first or the third grade, and with the upcoming official implementation of the third-grade policy, many other schools have announced that they would revise their current fifth-grade policy and extend the EFL program to the first or third graders next

academic year. It thus seems that the authorities of these schools believe that the younger the child starts learning English, the better ultimate proficiency level he or she is likely to achieve.

Advocates of such the-younger-the-better policy often base their argument on a strong conviction that younger children are superior to older children and adults in acquiring a second language (L2) because the former, compared with the latter, are quicker and more effective language learners. This traditional and almost irrefutable deep-rooted belief that children are better able to learn a foreign language is frequently further reinforced by some anecdotal reports or observations about someone who learns a foreign language as a child and later can speak that language indistinguishably from a native (e.g., Brown, 2000; Marinova-Todd, Marshall, & Snow, 2000). The aim of this paper is to discuss if 'the younger the better' belief is indeed true so that, under the extant educational environment of Taiwan, it can serve as a strong theoretical foundation for promoting an early-start English curriculum at the primary grades. The discussion of this issue will draw on neurological, cognitive and affective factors that are generally considered highly related to L2 learning. More importantly, in addition to these theoretical discussions, the findings of many empirical studies on the age issue will be reviewed in some detail to shed further light on our better judgment of whether an early-start stand can be considered appropriate. Since the new language policy asks students to start learning English in the primary grades rather than wait until they attend junior high school, the main focus of the discussion in the present paper will be on the comparison of adolescent and preteen learners in their L2 learning. This paper will then discuss the problem of Taiwanese students' poor English competence from the perspective of the widely seen teaching practice in this country. Finally some implications and suggestions about how to make this new language policy work will be provided in order to best assist our students in learning English well. In so doing, it is hoped that the present paper not only can conduce to a better understanding of the appropriateness for introducing a comprehensive English curriculum at the primary grades, but also may present a fuller picture of the complex nature about how an L2 is acquired.

THE REASON WHY MANY PEOPLE BELIEVE IN INTRODUCING FOREIGN LANGUAGES TO PRIMARY GRADERS: *Neurological argument*

Why are some public feelings so eager to introduce primary graders an early-start English curriculum? For those who are in favor of having students learn English before entering junior high school, the main argument they often rely on is that the early starters can learn an L2 much better than those who start late. Moreover, they believe that it is much easier and more likely for younger children to achieve native-like competence in the target language because postpubertal learners, with their biological function for speech acquisition declining sharply around the period of puberty, are generally assumed to be limited in their capacity to acquire any given language.

Assumptions like this often have to do with the widely debated *critical period hypothesis*, which was first brought forth by Penfield and Roberts (1959) for the first language (L1) acquisition process and later strongly advanced by other researchers for the importance of L2 training for younger children (e.g., Scovel, 1969; Long, 1990). Penfield and Roberts claimed that the optimum age for language learning falls within the first ten years of life, which determine native-like mastery of language, and that after this period, the brain loses its general neural plasticity and the function of the different parts in the brain becomes progressively stiff and rigid, thus making language learning more difficult and often incomplete. They further argued that this is caused by a process that happens in the left hemisphere, that is, the lateralization of the language function. This hypothesis is thus in fact based on neurological factors, especially brain maturation, so it is claimed that as the human brain matures, the structure that allows for automatic language acquisition in the child changes from initially involving both hemispheres of the brain to slowly being focused in the left hemisphere for most adults. In other words, as a result of brain maturation, the human capacity for understanding and producing language deteriorates. Penfield and Roberts accordingly regarded the increased difficulty that older learners supposedly experience as a direct result of this neurological change (Ellis, 1985, 1994; Brown, 1999, 2000).

The critical period hypothesis was further developed by Lenneberg (1967), who contended that human cognitive process reaches its 'language-readiness' around age 2 and

declines in the early teens. It was thus suggested that there is a biologically fixed timetable, or critical period, to learn language and that this critical period starts from 2 years of age and then terminates around puberty. Lenneberg elaborated on his theory by providing some empirical evidence to support his argument. For example, he found that injuries to the right hemisphere caused more language learning problems in the child than in the adult, and that children who underwent surgery of the left hemisphere did not experience speech errors, while adults after such operations showed signs of almost total language loss. This suggested that the neurological basis for language learning in children and adults was different (Ellis, 1985). Later on, Lamendella (1977) further took on this issue from a different angle by discussing some general principles of neurofunctional organization and their manifestations in primary and non-primary acquisition. He divided language acquisition into many different components, such as phonology, syntax, and lexical development, and all his analyses led to the same conclusion. That is, it was highly unlikely that L2 learners who start learning a language after puberty could attain proficiency as native speakers do.

The argument about the critical period hypothesis sparks great debates and comes under heavy criticism. In fact, subsequent work (e.g., Krashen, 1973; Whitaker, Bub, & Leventer, 1981) has proved questionable Lenneberg's claim that the critical period terminated when complete lateralization of the language functions in the left hemisphere was achieved. For example, Krashen (1973) reexamined the data Lenneberg had analyzed and found that the completion of the left hemisphere specialization occurred by the age of 5. Studies on dichotic listening also showed that the development of lateralization might be completed as early as age 4 (Berlin, Lowe-Bell, Hughes, & Berlin, 1972; Harshman & Krashen, 1972). In addition, it has been suggested that localization does not occur suddenly or at the same rate for all language subsystems of the brain as the critical period hypothesis implies. It is more appropriate to say that certain language skills are acquired more easily at particular times in development than at others, and that some skills can be learned even after the critical period (Seliger, 1978). Accordingly, Seliger (1978) argued that there should be more than one critical period. All these indicate that more research needs to be done in order to determine what the relationship between the biologically fixed period and language development really is.

Moreover, according to Lenneberg, the development of lateralization in the brain brings about the specialization of function in the two hemispheres, with verbal functions exclusively located in the dominant hemisphere. Once this development process is complete, the brain loses the cerebral plasticity it needs for language acquisition to occur easily and quickly. However, split-brain studies have shown that Lenneberg's formulation that restricts all language functions to the dominant hemisphere seems implausible, for the minor hemisphere still shows signs of verbal functions after the so-called critical period. Though admittedly its verbal functions are clearly inferior to that of the dominant hemisphere, the minor one can conduce to comprehending spoken and written nouns, some phrases, and simple sentences (Sperry, Gazzaniga, & Bogen, 1969; Gazzaniga, 1970). McLaughlin (1984), after reviewing biological evidence, even contended that the aging of the brain during childhood does not really diminish the ability to learn language and that no period of the life span is critical to such acquisition. By citing the case study on Genie, he also argued that despite previous deprivation, children who start learning language from as old as 13 years of age can still manage to successfully acquire many language skills (pp. 50-52).

Simply put, Lenneberg's evidence in fact does not really demonstrate why it would be easier to acquire language before puberty (Ellis, 1985). In addition, the frequently cited argument by Penfield and Roberts that the brain loses its plasticity for language learning when children grow older cannot be proved related to language learning in any simple way (Snow, 1983). However, while there were many researchers cautioning against the existence of a proposed optimal age for learning mother tongue, similar arguments occurred in the field of L2 acquisition. For example, Scovel (1969) argued that the critical period existed not only for first but also for second language learning. In his later work, he even put forward a sociobiological critical period hypothesis concerning the development of a socially bonding accent that could help individuals form species-specific identities and attract mates of their same community. Another example can be seen from the argument made by Long (1990), who, on examining the applicability of the critical period hypothesis to L2 acquisition, proposed a maturation hypothesis, which predicted not only that there are substantial differences between children and adults in their acquisition of mother tongue, but also that children learning L2 will find their task much easier than adults.

OTHER FACTORS THAT NEED TO BE TAKEN INTO ACCOUNT IN SECOND LANGUAGE ACQUISITION:

Cognitive consideration and affective domain

As we have seen from the discussions of the role of age in language acquisition above, the focus is on the critical period hypothesis, that is, on maturational or neurological constraints. This line of argument apparently cannot present us with a complete picture of how human beings acquire language. In fact, other factors, in addition to neurological concern, should also be taken into consideration when we explore the role of age in language learning. As Morris and Gerstman (1986) have suggested, future researchers of the age effect may have to abandon the sole consideration of this factor, and may have to readdress the so-called puberty critical period hypothesis as an essentially multivariate issue, interlinking a host of demographic, cognitive, affective, demand, and task factors. In so doing, we can be in a better position to decide whether or not the new language education policy that the government just began implementing can be fully supported from a theoretical point of view.

Many researchers (e.g., Krashen, 1982; Ellis, 1994; Brown, 2000) have argued that at least some cognitive or affective variables, instead of the maturation of innate capacities, may be more appropriate for us to adequately explain the child-adult differences in their L2 acquisition process. For instance, Brown (2000) speculates that if an adult does not learn an L2 successfully, it is probably caused by the intervening cognitive or affective variables, rather than by the absence of innate capacities. This section of the present paper will discuss the appropriateness for introducing English education to primary graders from these two often-mentioned perspectives, that is, the cognitive and the affective. Like neurological viewpoints, there has been a great deal of literature centering on these two areas. A detailed discussion of them is thus certainly beyond the scope of this paper, so the following discussion is only meant to be exemplifying, rather than comprehensive.

Cognitive consideration

In considering the relationship between cognition and language acquisition, it is generally believed that the cognitive ability of human beings develops rapidly during the first sixteen years of life and less so afterwards. According to Piaget (1972), the course of

human intellectual development consists of three main stages. The first stage is sensorimotor stage, starting from birth to the age of two. The second is preoperational stage, starting from ages two to seven. The third is operational stage, including two substages, with one, concrete operational stage, starting from ages seven to eleven, and the other, formal operational stage, starting from ages eleven to sixteen. Cognitively, children at puberty (age eleven) can be considered at a critical stage for the effects of age on L2 acquisition to occur because they at this age become capable of acquiring abstract thoughts and doing formal thinking beyond concrete experience and direct perception. In other words, not until puberty are human beings equipped with this kind of ability. Accordingly, the connection between the concrete/formal stage transition and language acquisition can be employed to argue for a critical period of language acquisition (Brown, 2000). While such a connection has been suggested to be beneficial for adults learning an L2 because they can profit from appropriate grammatical explanations and deductive thinking (e.g., Ausubel, 1964; Ellis, 1994; Brown, 2000), it is certainly an undeniable truth that young children can indeed acquire an L2 successfully without the presence of formal operational thought.

In fact, children without such ability have been argued to bear more advantages than teenagers and adults in learning a language. For example, as what Rosansky (1975) has noted, because children at this time are egocentric, they, when faced with a problem, tend to focus on one dimension at a time. As a result, initial language acquisition takes place. Teenagers and adults, by contrast, seem to view a problem from more than one dimension, which might cause some learning differences or difficulties between them and young children. In addition, Brown (2000) stated that young children are generally not consciously aware that they are acquiring a language, "nor are they aware of societal values and attitudes placed on one language or another" (p. 61). Such unawareness may make them free from experiencing some learning difficulties in their acquisition process, such as those caused by the interference of their native cultural and social values. This may thus help them learn an L2 more efficiently and effortlessly than teenagers and adults.

The lateralization hypothesis aforementioned is another respect frequently employed to explicate the cognitive differences between child and adult language acquisition. After puberty, the left hemisphere of human brain, which is generally considered responsible for analytical and intellectual functions, becomes more dominant than the right one, which is

usually regarded as responsible for the emotional functions. It is likely that the dominance of the left hemisphere has to do with the adult's tendency to consciously pay much attention to the formal, linguistic task of L2 learning (e.g., Ellis, 1985, 1994; Brown, 1999, 2000).

In addition, the ways children and adults learn things can offer another perspective in the cognitive domain for the child-adult differences. While adults, whose mature cognition has made them equipped with greater ability for rote learning, usually employ such learning only for short-term memory or for artificial purpose, children, whose learning activities may mostly consist of seemingly meaningless repetition and mimicking, in fact acquire new things by what Ausubel (1964) refers to as meaningful learning, that is, by relating new things to existing knowledge and experiences (Brown, 2000). With this distinction, the effect of language learning children have is consequently very different from that adults have.

Based on the discussion above, most of the cognitive characteristics may make the child a better learner than the adult. An interesting question then arises as to whether the maturation of human cognition may contribute to a liability to successful L2 acquisition. If so, since we can easily find that some people who start learning an L2 after puberty are considered very successful, there must exist some intervening variables to allow this to happen. That brings us to examine the affective domain of L2 learning.

Affective consideration

There has been a great deal of research on the affective domain in L2 acquisition for the past several decades (see Brown, 2000). Affective factors indeed have been found to be an important influence on success in language learning though oftentimes there are some difficulties in identifying and measuring these factors (Lightbown & Spada, 2001). Nowadays many have been studied in detail, such as attitudes, inhibition, empathy, language ego, and peer pressure. In this paper, those frequently examined will be discussed as follows.

· Attitudes

People who show different attitudes toward language learning may manifest different levels of L2 proficiency. Adults, because of their previous life experiences, may have held

strong "attitudes" toward some or even all aspects of the foreign language they are learning, such as races, cultures, ethnic groups, and classes of people. If these attitudes are negative, they certainly will affect learners' success in acquiring that language. By contrast, since very young children are not cognitively developed enough to possess attitudes toward the target language, they are supposed to be less affected than adults are (Brown, 2000). This may also be the reason that young children in the immigrant families, compared with their older siblings and parents, can often learn a new language more rapidly and effortlessly. Brown (2000) explained this by arguing that because "they have not built up years and years of a culture-bound world view (or view of themselves), children have fewer perceptive filters to readjust and therefore move through the stages of acculturation more quickly" (p. 188). However, after children enter schools, they often consciously or unconsciously pick up certain attitudes toward the target language from parents, teachers, other adults, peers, and so on. Therefore, as far as the success of L2 learning is concerned, it seems less likely for younger children to be affected by the negative attitudes they pick up at schools than for older children.

· Inhibition

Inhibition is another aspect of the affective domain that has been frequently studied. It usually refers to the emotion that people have about their own self-identity when fearing to expose too much self-doubt (Brown, 2000). In other words, it has to do with the fact that human beings are developed to build defenses to protect the ego. This process of building defenses in essence continues from childhood into adulthood. Inhibition is usually found to discourage risk-taking, thus influencing the progress in L2 learning. The research done by Guiora et al. (1972) is a case in point. They, by studying the effect of alcohol on L2 pronunciation, concluded that inhibition is a negative factor for successful learning. Generally this factor would show different impacts on children on the one hand and adolescents and adults on the other. Lightbown and Spada (2001) claimed that inhibition is often a particular problem for adolescents and adults because they are usually more self-conscious than young learners. Such strong self-consciousness will form inhibition, which will in turn hinder their progress in language acquisition. Observational and research evidence have amply shown that adults and teenagers are very likely to manifest a number of

inhibitions in their L2 acquisition process (see Ellis, 1994). For example, adult learners, when attempting to speak in a foreign language, are often found to feel a sense of embarrassment; by contrast, most young children tend to jump to volunteering to speak in the target language.

· Language ego

Language ego is another personality variable in L2 learning that deserves mention. It refers to the identity that people develop in reference to the language they speak (Guiora et. al, 1972) and may account for the difficulties that learners experience in acquiring an L2. During communicative process, the language ego involves the interaction of the language the speaker employs and ego development. To Guiora and his associates, a certain degree of identity conflict may arise when language learners acquire a new language and take on a new identity. The ways adolescents/adults and children deal with the identity conflict involved in L2 learning vary substantially. It is not easy for the teenagers and adults to make the leap to a new or second identity unless their ego strength is powerful enough to overcome the inhibition they have built up in mind. On the other hand, before the age of puberty the child's ego is not only growing, but also very dynamic and flexible. A new language at this stage thus does not in effect produce a big inhibition to the ego, and adaptation is made relatively easy so long as a damaging attitude toward the target language was not developed at a young age. Further, younger children are less aware of language forms, so they do not greatly concern about the mistakes they may make during communication. In contrast, adolescents and adults are usually very concerned with and careful in using correct language forms because they are afraid of being laughed at. They ignore or cannot realize the fact that these mistakes are something they have to make in order to be able to employ the target language spontaneously. This often makes the L2 learning of adolescents and adults an enormous undertaking (Brown, 2000).

· Learner beliefs

Most L2 learners, especially older learners such as teenagers and adults, usually hold strong personal beliefs and opinions about how the foreign language instruction they receive should be delivered. Because of the previous language learning experiences they had or of

the popular relevant opinions widely held in the society they live in, these learners frequently get used to only a particular type of instruction and may thus assume that it is the most effective teaching method for them to learn an L2 successfully. A situation like this can be illustrated by Yorio's (1986) study. She conducted a survey to the ESL students in a highly communication-oriented program at a university. The majority of participants expressed that the instruction they received ought to be laid more emphasis on language forms and that they would like to see more corrective feedback and teacher-centered instruction given. It is likely that this kind of seemingly dissatisfied feelings toward their language instruction will affect their learning progress though more substantial studies certainly need to be conducted to see if such a correlation indeed exists. On the other hand, children, due to their relatively limited previous learning experiences, may not have too many strong personal beliefs about what kind of instruction would be the most facilitative in their L2 acquisition process. Therefore, it is likely that the chance of their learning progress being negatively affected by their beliefs can be greatly reduced.

· Motivation

A great number of studies and experiments (see Dornyei, 1998; Brown, 2000) have shown that motivation is an indispensable key to success in any human learning task. It is thus of no surprise that there has been widespread recognition that motivation is of vital importance for successful L2 acquisition. However, most research experiences trouble identifying how exactly motivation is related to learning. For example, motivation can be causative, i.e., show an effect on learning, can be resultative, i.e., be affected by learning, can be intrinsic, i.e., derive from inner needs and personal interests of the learner, and can be extrinsic, i.e., derive from external sources such as material reward (Ellis, 1994). Nevertheless, the overall findings from the growing stockpile of research on motivation do show a clear relation between positive motivation and success in L2 learning (Gardner, 1985). It is generally believed that compared with teenagers and adults, children are more highly motivated to communicate with speakers of the target language and to integrate themselves into the target culture. One of the reasons for this might be that, as suggested earlier on, younger learners have not already been cognitively developed enough to hold negative attitudes toward the language they are learning, and are therefore less affected than

teenagers and adults.

· Peer Pressure

The peer pressure that adults experience in language learning is very different from that children encounter, and generally, they deal with such pressure in a very different way. Children are often told that they had better to act like the rest of the kids and they usually follow what others do or say. Such peer pressure can be found in language use too. Children may receive strong criticism from their peer if they do not employ the words other children say. So most of the time they will try to produce the language forms they are taught and usually do not tolerate linguistic differences that deviate from the forms they know about. Accordingly, children may be provided with a necessary degree of mutual pressure to learn an L2 successfully. On the other hand, adults tend to accept linguistic differences more than children, especially when the intended message can be understood. Their errors in speech are hence more easily tolerated. Usually if adults can understand an L2 speaker, they may offer some positive feedback, "a level of tolerance that might encourage adult learners to "get by"" (Brown, 2000, p. 66). This might cause the different degrees of success in learning the target language between children and adults.

The above discussion clearly shows that like cognitive factors, basically all the affective characteristics aforementioned seem to make the child a better learner than the adult. Therefore, in addition to the traditionally held neurological argument regarding the existence of a critical period, it appears that many more arguments can be made to support the early-start educational policy for introducing an EFL curriculum to primary graders. However, before this conclusion can really be reached, we need to take into consideration the fact that a large number of empirical studies (see the following section for illustrative examples) have been conducted to address the age factor in L2 acquisition, for their findings may shed further light on our better judgment of whether or not an early-start stand can be considered appropriate.

EMPIRICAL STUDIES ON THE AGE FACTOR IN SECOND LANGUAGE ACQUISITION

Empirically, there are enormous studies (for example, see Krashen, Long, & Scarcella, 1982; Marinova-Todd, Marshall, & Snow, 2000) that have addressed the age issue to try to provide evidence to support or question the argument that a critical period in L2 acquisition does exist. The conclusions that have been arrived at in the existing literature seem not only different but also controversial. While some studies have shown that children are much slower in language learning than the previous research has suggested or predicted, thereby rejecting the argument that younger children possess unique capacities for learning a new language, some have presented the opposite. Although the discussion of the relationship of age factor and L2 acquisition is still full of discrepancy, Ellis (1994) once summarized that some common ground can be found to be shared by the commentators that focus on the age issue in L2 acquisition (p. 491-492):

1. Adult learners have an initial advantage where rate of learning is concerned, especially in linguistic forms. They will eventually be overtaken by child learners who have enough exposure to the target language. This, however, is less likely to happen in formal than in naturalistic settings because the critically necessary amount of exposure is not usually available in the former.
2. In informal learning contexts, only child learners are capable of acquiring a native accent though the critical ages set by researchers may differ. Nevertheless, some children who receive massive exposure are still not able to acquire a native accent. Adult learners, on the other hand, may be able to achieve a native-like accent with the assistance of instruction.
3. Children may be more likely to attain native levels of grammatical competence. However, it is possible for adults to acquire a native grammatical accuracy in speech and writing, and even full linguistic competence.
4. In the long run, children are more likely to reach higher levels in both pronunciation and grammar than adults.
5. While the acquisition process of acquiring L2 pronunciation may be substantially affected by the age factor, the process of acquiring grammatical competence is not.

Based on the general conclusions Ellis made, whether it would be appropriate to start English education early is still a hard question to answer, for our concern in this paper is to find out whether younger children, where the formal settings are concerned, will be better learners than older children. This apparently cannot be told from Ellis's summary.

In the following, many research findings will be reviewed in some detail to show why the above general conclusions Ellis made are reached. More importantly, the discussion in this section provides strong arguments to explicate the standpoint that the popular, widely-held lay belief that younger children are better learners than older ones is in fact a myth, and thus maintains that if a comprehensive new early-start English curriculum really needs to be introduced to students in primary schools in Taiwan, it be done with more deliberate thoughts.

Evidence for the Critical Period Hypothesis

Johnson and Newport's (1989) work can be considered one of the most frequently cited studies to support that a critical period indeed exists in L2 acquisition. The task in their study was about grammaticality judgments consisting of 276 items to test 12 rules of English morphology and syntax. Forty-six native speakers of Chinese and Korean, who had immigrated to the U.S. at different ages (3-39) and whose exposure to English ranged from 3 to 26 years with an average of 10 years, were asked to listen to recorded sentences on a tape to tell whether or not these sentences were correct. Based on the finding that showed a high negative correlation of -0.77 between age of arrivals and test scores, Johnson and Newport argued that there was no difference in proficiency between those who arrived before the age of 7 and native speakers of English, that there was a gradual decline in the level of proficiency from ages 6-7 to 16-17, and that adults showed a wide variety in proficiency but there was no clear age effect within their group. Simply put, the turning point, which is the puberty, was at the age of 15 and the earlier learners started to learn a language before this critical point; the better their performance was in the L2.

Though Johnson and Newport's study draws widespread attention and its findings are considered the best evidence in L2 acquisition for supporting the existence of a critical period that occurs at the puberty (Long, 1990), it has been questioned on several respects.

For example, it seems odd to place puberty at 15 years because it is much later than the so-called biologically fixed optimal age suggested for L1 acquisition (Marinova-Todd, Marshall, & Snow, 2000). Perhaps the strongest argument against Johnson and Newport's findings came from Bialystok and Hakuta's (1994) study. They reexamined the Johnson and Newport's original data and found that age-related effects occurred only for some of the structures analyzed, and that when such effects showed, they had to do with the structures very different between English and the participant's mother tongues. Accordingly, Bialystok and Hakuta argued that the effect of L1, or the distance between L1 and L2, appeared to be a more important factor than the age of onset of L2 learning. More important, they recalculated the correlation between age on arrival and performance on the judgment test by dividing the participants into two groups, 3-20 years of age and 20-39 years of age, and found that deterioration in proficiency started only after age 20, which is much later than biologically programmed changes associated with puberty (Marinova-Todd, Marshall, & Snow, 2000).

Coppieters's (1987) study is another experimental work that is widely cited in support of the critical period hypothesis. He examined the linguistic competence of 21 highly proficient nonnative speakers of French, who had begun learning an L2 as adults, and compared their performance on a grammaticality judgment task with that of 20 native speakers. The results showed that the latter significantly outperformed the former. Coppieters argued that despite the native-like performance of these L2 learners in language production, their grammatical competence obviously differed from that of L1 speakers. His findings suggested that learners who started learning an L2 after puberty did not seem likely to be able to achieve native-like proficiency where grammatical competence was concerned. However, like Johnson and Newport's study, Coppieters's was also cast serious doubts on in many respects. For example, after noting some methodological and procedural problems inherent in Coppieters's study, Birdsong (1992) conducted a modified replication study and found that there were no significant differences in the judgments between the performance of native speakers of French and L2 learners. A number of nonnative speakers performed as well as the native speakers on the grammaticality judgment test. In addition, contrary to Coppieters, Birdsong found no evidence of any marked differences between the two groups in the think-aloud data he gathered from the participants when performing their judgments.

His study thus suggests that some learners who start learning an L2 after puberty can attain a level of proficiency indistinguishable from that of native speakers (Ellis, 1994).

Evidence against the Critical Period Hypothesis

It is generally quite recognized by language researchers and school-based specialists today that the proficiency achieved by L2 learners needs to go beyond knowledge of discrete components (such as lexicon, phonology, semantics, syntax, and morphology) and of integrative approach (such as discourse connecting the discrete components), to include communicative competence (for instance, pragmatic and conversational skills) (e.g., McLaughlin, 1984; Snow, 1991). Though the public, some professionals, and foreign language teachers generally maintain the conviction that age confers a negative advantage on L2 learners; that is, younger children learn an L2 more quickly, effortlessly, automatically, and to a level more similar to that of native speakers than high school aged children and adults, many research findings have shown that, in both formal teaching and untutored settings, teenagers and adults are often proved to be faster learners than younger children, and that the former acquire more in the same amount of time than the latter for most of the domains of acquisition studied. In the following, the relevant research findings reflecting different aspects of skills in L2 acquisition are reviewed to demonstrate that older children appear to have better proficiency outcomes than younger ones. We will see that the performance of older children is better than that of the younger in almost every domain not only in formal or experimental environments, but also in informal or natural settings.

We can take for example an empirical study by Snow and Hoefnagel-Hohle (1977). They investigated the relationship between age and the acquisition of native-like pronunciation by focusing on 51 English speakers aged 3 to 60 learning Dutch in the Netherlands in the naturalistic setting and 85 aged 5 to 31 in the laboratory setting. While the well documented factors that were usually regarded as strong reasons for differences in speed of acquisition, such as amount and quality of language exposure, motivation and attitude to learn, language aptitude, all seemed to be conducive to younger learners' Dutch acquisition, the results showed: (a) In the naturalistic setting, not only had young children no immediate advantages in learning L2 pronunciation, but it was claimed that older children and adults were better than younger children on vocabulary, morphology, and syntax. (b) In

the laboratory setting, the ability to imitate foreign words under controlled input conditions was positively correlated with age so that oldest participants performed the best, and youngest performed the worst. In other words, when we take into account the characteristics of the linguistic input to Dutch acquirers of different ages, the superior ability of the older learners turns out to be even more obvious.

In another study of Snow and Hoefnagel-Hohle's (1978b), they employed the Peabody picture test to examine the pronunciation, auditory discrimination, morphology, sentence repetition, vocabulary, and translation skills of 100 native speakers of English living in Holland, with 3 distinct age groups of 8-10, 12-15, and adults. The results showed that adolescents were the fastest and achieved the highest proficiency not only in rule-governed aspects such as morphology and syntax, but in pronunciation, followed by adults, while youngest children performed worst. It, thus, appears to indicate that at least as far as younger and older children are concerned, age does confer a strong advantage in L2 acquisition.

In addition to the studies above, many similar findings have been reported (e.g., Ervin-Tripp, 1974; Ekstrand, 1976; Fathman, 1975; Snow, 1983; Birdsong, 1992; Bongaerts, van Summeren, Planken, & Schils, 1997; Rivera, 1998). A widely cited study by Krashen, Long, and Scarcella (1982) once summarized the research findings done in the 1960s and 1970s in both formal and informal environments to support that (1) adults are superior to children in rate of acquisition, and (2) older children learn more rapidly than younger children at almost every learning task. For example, where formal or experimental environments were concerned, in the studies of Ekstrand's (1978), who tested the imitation, listening comprehension, and translation of 335 third, fourth, and fifth graders (ages 8-11) with 'audiovisual' treatment, of Asher and Price's (1969), who measured the 'total physical response' (TPR) of 96 eighth, tenth, and fourteenth graders with the TPR teaching, of Olson and Samuels' (1973), who compared the pronunciation of 80 children at the ages 9.5 to 10.5 with that of those at the ages of 14 to 15 through 'Phoneme Drills' method, of Florander and Jansen's (1979, as cited in Krashen, Long, & Scarcella, 1982), who tested the grammar, vocabulary, listening comprehension, and reading of 300 to 400 children from grades 4 to 6 in an EFL program, of Grinder, Otomo, and Toyota's (1962), who measured the vocabulary, pronunciation, and listening comprehension of 148 children from grades 2 to 4 with

audiolingual method, they all indicated that when appropriate controls were used for similar treatments (e.g., amount of exposure) to the foreign language instruction, there existed a linear relationship between age and L2 learning in all domains of language acquisition. In other words, in formal or experimental environments with similar treatments older children were found to have better proficiency outcomes than the younger.

Though our concern here is how children at different ages would perform in school settings, we can also refer to Krashen, Long, and Scarcella's (1982) study again to see if L2 learners' performance in informal environments is consistent with the finding from formal environments that older children are actually better learners. In the studies of Ekstrand's (1976), who tested the reading, speaking, pronunciation, listening comprehension, and free writing of 2189 children at the ages of 8 to 17, of Fathman's (1975), who measured the morphology, pronunciation, and syntax of 200 children at the ages of 6 to 15, of Snow & Hoefnagel-Hohle's (1978a), who tested the morphology, pronunciation, imitation, and translation of 96 children at the ages of 3 to 15, and of Ervin-Tripp's (1974), who measured the syntax, morphology, and pronunciation of the children at the ages of 4 to 9, they all showed that in informal settings with similar length of exposure, older children were faster and better learners than younger children in every aspect of language acquisition, with the exception of pronunciation in Fathman's study.

In Fathman's (1975) study, the younger children at the ages of 6 to 10 were more successful at learning the phonology of a new language than the children aged 11 to 15. In fact, learners' pronunciation performance has often been the focus of many empirical studies that investigate the relationship between age of acquisition and L2 development. While there were some cases where adults were found to pronounce indistinguishably like speakers of the target language (e.g., Neufeld, 1979) and where adolescents and adults performed significantly better than children (e.g., Olsen & Samuels, 1973; Snow & Hoefnagel-Hohle, 1977), some studies showed that younger learners were more successful in achieving native-like pronunciation (e.g., Asher & Garcia, 1969; Seliger, Krashen, & Ladefoged, 1975; Oyama, 1976; Tahta, Wood, & Loewenthal, 1981). Cochrane (1980), for example, examined 54 Japanese children and 24 adults to see how their ability to discriminate English /r/ and /l/ was. Though the average length of naturalistic exposure for children was relatively little than that for adults, the former outperformed the latter. Nevertheless, in a

follow-up study in which the phonemic distinction was taught to the two groups, it was the adults that benefited while the children did not. This suggests that in the case of formal learning situations adults appear to do better in pronunciation. The above discussion clearly shows that while research findings seem controversial in the informal cases of older versus younger learners' acquisition of phonology, there appears to be no exception in formal environments. Accordingly, we can see a linear relationship between age and most domains of L2 learning.

In brief, no matter whether L2 learners are in formal settings or not, older children seem to be better learners than the younger in most aspects of acquisition, pronunciation excluded. As regards phonology, younger children appear to be sometimes better in informal environments; however, this does not happen in formal settings. Since the focus of the present paper is on the appropriateness for the case of an early-start EFL education in elementary school, based on the relevant research findings examined here, it seems safe for us to believe that high school students will have better proficiency outcomes in every aspect of EFL instruction than primary graders. This in fact is an unsurprising conclusion unless we assume that language learning is very different from other complex learning tasks encountered by the human.

Efficacy of Foreign Language Instruction

Like some of the studies aforementiomed that suggest the existence of a critical period, some empirical studies lending support to refute the critical period hypothesis have also been criticized from the methodological point of view. For example, Hyltenstam and Abrahamsson (2001) indicated that the differences between adjacent age groups in Snow and Hoefnagel-Hohle's (1978b) study were not significant. Perhaps the strongest point to question the abundant older-is-better findings comes from the argument that where ultimate attainment is concerned, it is an aspect in which the pattern of older learners' superiority is broken. Many researchers (e.g., Seliger, Krashen, & Ladefoged, 1975; Oyama, 1976; Krashen, Long, & Scarcella, 1982; DeKeyser, 2000) have argued that the fact that older learners acquire a foreign language faster and better than younger children only suggests that what is measured is the rate of learning, rather than the ultimate attainment of L2, and that children, while learning more slowly, will keep going longer and ultimately attain a higher

proficiency level than the former. Even though we do without any reservation accept this line of argument that while adult L2 learners excel in the speed of acquisition, child L2 acquirers excel in the ultimate level of achievement, as far as the focus of this paper is concerned, an interesting question then arises as to whether this situation holds for younger versus older children.

A number of studies (e.g., Bland & Keisler, 1966; Vocolo, 1967; Oller & Nagato, 1974; Burstall, 1975; Harley, 1986), after examining the relative effects of starting foreign language education in elementary school as opposed to secondary school, showed us a clear answer. They all have indicated that children who start later catch up to those beginning earlier. For instance, in the largest single study of children learning a foreign language in an elementary school context, Stern, Burstall and Harley (1975, as cited in Krashen, Long, & Scarcella, 1982), who compared approximately 17,000 children learning French on the basis of when they began learning the language, found that after five years of exposure, children who started at the age of 11 were more successful language acquirers in French attainment than children who began at eight years. This means that, given the same amount of exposure, younger children are poorer L2 learners than older children, and that older children who start later acquire faster, to the point where they ultimately catch up with and surpass younger children.

Similarly, we can also refer to the studies that focus on L2 learners in informal environments to back up the position that older children are better than the younger. Snow & Hoefnagel-Hohle's (1978b) study is a good case in point. The younger participants at the ages of 6 to 10 in their study were found not able to catch up with the adolescent children aged 12 to 15 in the final measures of syntactic and morphological development after one year. Another example can be seen from Fathman's (1975) study, in which older immigrant children (11 to 15 years) continued to perform better than younger children (6-10 years) in the measures of morphology and syntax even after 3 years in the country. Therefore, apparently the argument that younger learners' ultimate level of attainment is likely to be higher than that of the older cannot be applied to the case of younger versus older children.

Accordingly, where the level of ultimate attainment is concerned, the research findings tell us that older children are again better and faster learners than the younger and that there is no evidence that the latter ultimately outperform the former. So even if the policy maker

and the public still keep good faith in introducing primary graders EFL instruction, they at least need to recognize the fact that research findings have amply proved that older children are going to ultimately perform better than younger children.

SOME POSSIBLE EXPLANATIONS ABOUT WHY OLDER CHILDREN ARE BETTER L2 LEARNERS IN THE SCHOOL CONTEXT

What makes older children relatively better L2 learners than the younger? If we take into consideration the fact that the well-documented factors usually regarded as strong reasons for successful acquisition, such as the cognitive and affective factors, mostly seem to be favorable to younger learners—as discussed earlier on, the superior ability of the older children turns out to be even more obvious. While L2 acquisition researchers today still cannot produce some testable hypotheses to account for why older children are relatively better L2 learners in school settings, some researchers (e.g., Cummins, 1979; McLaughlin, 1984) have tried to offer some possible explanations. In this section, by referring to these often-cited explanations, it is hoped that we can have a better understanding of what role the age factor plays in L2 acquisition process.

First, in many L2 learning settings such as those in Europe, special emphasis is often laid on formal aspects of grammar. Learners in formal context thus generally tend to need to apply more problem solving skills and strategies in dealing with language learning obstacles and barriers accompanied by either grammatical or communicative functions. Accordingly, older children, because of a more-advanced cognitive development, seem to be more skilled in coping with such an instructional approach (McLaughlin, 1984).

Second, in Canadian immersion classroom, according to the account above, older children are supposed to have no advantage over the younger because little emphasis is placed on the formal grammatical analysis, but some research shows that late immersion students do as well as early starters (Wong Fillmore, 1982). Therefore, Wong Fillmore further contends that at the task of learning an L2 in the school environments, older children with better-developed cognitive strategies may perform better than the younger.

Third, the finding that older children are better L2 learners in the school context is

consistent with Cummins' (1979) linguistic interdependence hypothesis that older learners, with a more-developed ability to deal with literacy-related language, would acquire academic and cognitive L2 skills more rapidly than the younger. Thus, as far as the formal settings are concerned, we can expect older children to perform better when the instruction is placed emphasis on generalized competencies in verbal reasoning, abstraction, and metalinguistic abilities.

We can clearly see from the above that children's cognitive ability is a key point for these researchers' explanations. In fact, language pedagogues have also frequently pointed out that older children, after the age of about 12, have more developed cognitive facilities and will thus benefit from a more abstract approach to language teaching (McLaughlin, 1984). Many researchers have supported this line of argument by invoking Piaget's theory of cognitive development mentioned earlier on, that is, when faced with a formal instruction that mainly focuses on aspects such as verbal reasoning and abstraction, older children will do best on the ground that they have reached the stages of Formal Operations. In brief, because older children have progressed further in cognitive development, they may appear to have an advantage in L2 learning.

There is no denying that learning an L2 successfully is a very difficult and complex task to achieve. In addition to the neurological, cognitive, and affective domains examined in this paper, other factors may play a key role for successful learning as well. For example, Yorio (1976) maintained that learners could be benefited more in their L2 acquisition process if special attention was paid to the context of teaching, which includes place of learning, type of language contact, family language environment, peer language environment, and context of learning, such as the length, material, and source of instruction. In addition, Bialystok (1997), after conducting two studies to examine the effect of age on L2 learning, pointed out that successful acquisition of an L2 did not depend wholly, or primarily, on maturational factors, that is, the age at which learning begins. She claimed that the correspondence between language structures in the L1 and L2 was the most important factor that would affect acquisition. In addition, her studies showed that the amount of time spent speaking the target language, rather than the age of onset of L2 learning, was a significant factor.

DISCUSSION OF TAIWANESE STUDENTS' POOR ENGLISH COMPETENCE AND IMPLICATIONS FOR TAIWAN FOREIGN LANGUAGE POLICY

The above discussion clearly shows that primary graders, when compared with high school students, do not prove advantageous in L2 learning. The investigator is pretty much convinced by this research finding, thus believing that high school students are in fact in a better position to learn English well. An interesting question then arises as to why the majority of college students in Taiwan, since they mostly started learning English since high school, have often been criticized to have great trouble using this language to express themselves or even conduct a simple everyday conversation with native speakers. Base on the empirical research findings examined in this paper, they can be considered starting learning an L2 at a seemingly 'appropriate' age (i.e., not so young as a pupil) and are thus supposed to have much better learning outcomes where the proficiency of the four language skills are concerned. Sad to say, however, their performance not only fails to lend support to or even bear out research findings, but also is in fact employed by many the-younger-the-better proponents as a strong, solid reason for introducing EFL instruction in elementary school.

The answer to the above question has little to do with the fact that these students learn English after the so-called critical period, but has much to do with the extant language teaching practice in high school. As suggested earlier on, language learning is affected by many factors, such as the cognitive and the affective that have been explored in some detail earlier on. This section of the present paper will focus on another extremely important factor, the educational, which the investigator argues is the primary reason causing the fact that students in Taiwan, though beginning learning English at a seemingly proper age, generally show relatively poor learning outcomes.

High school students in Taiwan have long been undergoing a heavy pressure of attending colleges, and under the current education system the college entrance-related examination is widely regarded as one of the fairest and most effective instruments where student-selecting assessment is concerned. Hence, for the majority of students who want to go on to college, doing well in those examinations plays a very important role to help them have their academic dream realized. In such an educational context, the high school

curriculum is very intimately linked to testing because the school's ratings and the teacher's reputation rely very heavily on students' test performance. We thus see that the teacher often just wants to match the curriculum to the test and stuff students with whatever they need to know so that their chance of performing well can be greatly increased. Stated another way, the nature of the entrance-related examination does have some tremendous influence on classroom teaching and activities in which the teacher engages, thus shaping his or her practice and motivating students to produce the best test scores (Yu, 2002).

Unfortunately, the English testing practice in the educational environment of Taiwan is frequently firmly rooted with routinized skill goals and deeply influenced by the old-fashioned grammar/translation method. Therefore, on the one hand, with a view to producing the best test results from the students, most English teachers are generally interested in imparting isolated, fractionated, and low-level collections of knowledge and skills (especially for reading and writing skills) which are so obviously rewarded by the extant examination. On the other hand, students in turn mainly focus on picking up the decomposition of these skills and knowledge into independent components, having decontextualized assessments of such components, and meeting the correct responses prescribed in advance. Worst of all, since listening comprehension and speaking abilities are not tested in entrance-related examinations, teachers rarely take the initiative in teaching these two equally indispensable skills so that students are seldom provided with such instructions. Even if some kinds of whole language curricula are indeed offered, their focus is often not on listening or speaking skill-building training, but on reading and writing exercises in order to prepare students for doing great in the examinations. Therefore, suppose teachers do touch on listening and speaking skills in regular classes, how could we expect that this kind of once-in-a-while and piecemeal teaching style can really motivate students and eventually get students anywhere? Due to the fact that students only have very little formal training on listening and speaking skills during their high school years, it seems no wonder that students are often reported to have great difficulties using English to express themselves, especially when it comes to these two essential skills (Yu, 2002).

Accordingly, the problem of Taiwanese students' poor English competence does not lie in whether they learn this language after the so-called critical period, but in whether the educational practice they receive can indeed lead them to a right language-learning track.

In order to make the early-start language policy work, the school authorities need to recognize the fact that a good foreign language program should be oriented toward proficiency or communicative competence of the four language skills, that is, listening, speaking, reading, and writing (Omaggio-Hadley, 2001), thereby trying their best to avoid turning this elementary English instruction to the above-mentioned examination-oriented one that can still be very easily observed in high school today. Furthermore, they need to understand that a good language policy cannot be effective without consistent, ongoing, and well-planned instruction. Thus, the current high school English teaching practice, which is certainly the continued education for the new policy, also needs to be reformed so that the benefit gained from an early start can sustain. After all, if our students can receive excellent English education in elementary school and then are forced in high school to keep learning this language the current test-driven way, it takes no genius to figure out what their competence will be when they attend college. More important, practically, we cannot help but want to ask what the point is for us to go through all the trouble now to try to make this new early-start policy work if it cannot be successfully continued afterwards.

Based on the above discussion, it is suggested that the main problem for the seeming failure of our high school English education is due to the fact that the testing practice, which appears to be problematic for its focus mainly on isolated, fractionated, and routinized collections of reading and writing skills, has a huge influence on the extant language curriculum. How can we deal with this problem? Because the entrance-related examination is such an 'evil monster' that apparently obstructs students' development of communicative competence in a way, some might argue why we do not simply do away with it so that it is likely for our students to receive proficiency-oriented L2 instruction. Sadly, it is easier to be said than done in that this kind of 'talent-selecting' practice, which has been adopted in Chinese educational context for more than a millennium, is deeply rooted on Chinese mind. Culturally speaking, most people are convinced that a practice like this lasting more than one thousand year cannot be wrong. Therefore, although nowadays some alternatives have been proposed and adopted in place of entrance-related examinations for deciding what students are eligible to enter which college, these examinations still play not only an indispensable but also a very important role. Since under the extant educational environment of Taiwan it seems that there is no way we can get rid of the test-driven practice

any time soon, the least we can do is to try to devise a better testing method by which the competence of the equally important four language skills can be all properly evaluated. In so doing, it is more likely for the high school L2 curriculum to be an effective, consistent, ongoing, and well-planned follow-up for the elementary school instruction, and the early-start goal of enhancing our students' English competence can have a better chance to be realized.

CURRENT ENGLISH TEACHING PRACTICE IN AND SUGGESTIONS FOR THE ELEMENTARY SCHOOLS OF TAIWAN

Even though without much support from empirical studies, a comprehensive English education program that requires all the fifth graders to start learning English has been implemented by the Ministry of Education since the 2001 academic year. Some schools even have taken the initiative in having their students learn English from the first or third grade. Under this circumstance, a carefully designed program seems especially crucial if the authorities would really like to see this new policy work. However, unfortunately, many problems emerge after this policy has been implemented for slightly over a year. For example, in the present practice, primary graders learn English for only a couple of hours per week, which suggests that their formal contact with English is very minimal and may thus not be able to have enough exposure to show long-term effects (e.g., Marinova-Todd, Marshall, & Snow, 2000). In addition, some students who started learning English early, i.e., those who have learned outside the school, are placed in the same class with those who have no previous English instruction. This may cause the former to feel frustrated and their motivation to keep on learning may be hence diminished. As Singleton (1997) has argued, early L2 instruction in formal settings can be proven advantageous only when it is followed by well-designed foreign language instruction that builds on previous learning. Marinova-Todd, Marshall, and Snow (2000) also maintain that children who study a foreign language for only a year or two in primary school will show no long-term effects because L2 learners at this age usually need several years of continued instruction to be able to achieve even some modest proficiency. Accordingly, our investment in elementary EFL instruction may be indeed worth it if the early learning opportunities can be built up with and

strengthened by consistent, well-planned, and ongoing instruction not only in the higher grades but also in later years of study after primary school. We thus see that there is really an urgent need to improve our extant English program in elementary school. Shih (1998) once suggested that we pay more attention as soon as possible to tackle with problems such as goal setting, arrangement for class time, teacher training, material design, and evaluation methods.

The detailed discussion of the problems Shih put forward is beyond the scope of the present paper because each may deserve another article to discuss. Here this paper would like to focus on some general issues that should be treated with special attention in order for us to have a successful implementation of this new EFL curriculum policy in the future.

· Mother tongue maintenance

A well-designed English program for students in elementary school should take account of the great importance of mother tongue maintenance. It has to be ensured that the target language is an additional rather than a replacement language, which Ellis (1994) argues will help learners to develop a positive self-identity. To Ellis, mother tongue maintenance can result in the positive attitudes needed for successful L2 development, and he thus maintains that the mother tongue maintenance settings be characterized by positive organizational factors (such as, appropriate cultural content in teaching materials), positive affective factors (for example, low anxiety, and high internal motivation), success in developing full control of the L1, and a high level of proficiency in the L2 (p. 223). Some English teachers in Taiwan have tried to do similar reminding as well. For example, Zhong (1998), Liu (1999), Yang (1999), Shih and Zhu (1999) all emphasized the importance of cultural understanding (both native and foreign) in our designing English programs at the elementary school level. Marinova-Todd, Marshall, and Snow (2000) and Collier (1992) also stressed the importance of L1 instruction. They claimed that L1 instruction needed to be more important than L2 instruction so that the ultimate literacy and academic achievement in the L2 could be possibly realized. In brief, a well-designed English class should be a place where L2 learners can enjoy attending because its content is interesting and relevant not only to their age and level of ability, but to their native and target culture. To achieve this end, the learning goals this class sets should be clear, challenging yet manageable, and the

atmosphere it creates be supportive and non-threatening.

· Teacher's training

Many parents, teachers, and scholars have criticized that the current English teaching programs in elementary school is in great chaos due to the fact there has not been enough preparation for teacher training and source. With the implementation of the new curriculum policy, English teachers are greatly needed at the elementary level. Therefore, teacher qualification and recruitment are the two aspects most pertinent to the immediate, smooth enforcement of this new policy. Where teacher qualification is concerned, generally English-major graduates are preferable to non-majors. However, as we look at the man power source in reality, English majors are comparatively in very low supply. The main work force of our English teachers currently employed in primary school in fact comes from those who either pass a qualifying examination or study in an eight-week pre-service training program. Though thousands of teachers have been certified, the number of teachers in need is far greater than this. Under this circumstance, some elementary schools even hire teachers with little English teaching background to do the job. The situation will certainly be worsened when the English instruction is extended to the third or first graders.

· Cultural differences

We all know that Chinese and English are pragmatically and culturally very different from each other. For example, complimenting in American English may be difficult for Chinese. First, compliments occur in a much wider variety of situations for Americans than for Chinese; thus Americans give praise in some situations where complimenting is considered inappropriate or impolite by Chinese (Yang, 1987). Second, Chinese traditionally encourage a social convention of modesty; in many situations where they respond to praise, they often prefer routinized denials (e.g., '*I'm not*'), rather than appreciation tokens (e.g., '*Thank you!*'). From the Western point of view, such routinized denials might be considered impolite or even rude (Yang, 1987; Chen, 1993; Yu, 1999).

The differences like this will make good teaching materials for students to understand cross-cultural differences because, as suggested above in the discussion of mother tongue maintenance, language and culture are intricately related to each other. Perhaps the fascination that the development of L2 cultural understanding holds for researchers

originates from the serious trouble to which the lack of cultural awareness may lead for learners. Oftentimes mastery of linguistic forms combined with cultural confusion can make learners seem so improper, so incompetent, as to cause misunderstandings or even offense when they can understand the words' literal meaning but do not know the sociocultural rules of use for interpreting those words (Rintell & Mitchell, 1989). It thus goes without saying that culture can never be treated lightly if language teachers want to help learners really use the target language well. However, sad to say, the teaching for cultural understanding remains to be one of the most neglected aspects in foreign language curriculum (Omaggio-Hadley, 2001).

Gladly, the voice for a strong commitment to a better cultural understanding within the foreign language curriculum has getting louder and clearer in the light of recent developments both nationally and internationally. The crying need for mutual understanding and even acceptance among peoples in the world is evidently revealed by many horrible incidents such as the "ethnic cleansing" in Eastern Europe, the "hate crimes" against various ethnic or social groups in the United States, the continued strife among warring factions throughout the world, and the recent 911 terrorist attack in the U.S. Thus, as our students learn to live in the today's world where everyone is considered a member of the global village, the valuing of ethnic and cultural diversity must be pursued as a high priority in education so that all human beings can possibly lead a better life in this increasingly interdependent world (e.g., Lafayette & Strasheim, 1981; Strasheim, 1981; Galloway, 1985; Omaggio-Hadley, 2001). To achieve this goal, how to successfully integrate culture and language teaching seems to be a very important issue with which we need to deal wholeheartedly. Therefore, in designing or selecting the teaching materials, educators should carefully take culture factors into consideration.

· Motivation fostering

There is no denying that motivation is highly related to the success or failure of virtually any learning task. We can easily find that with some proper motivation a learner may have a better chance to be successful in L2 learning. In fact, many studies and experiments in human development have indicated that motivation indeed plays an indispensable role for successful learning (see Dornyei, 1998). However, in Taiwan, it

seems that the teaching approach is the one that often gets the spotlight while motivation is the one that often gets neglected. Countless discussions of English teaching can often be found to center on how to adopt an appropriate teaching method in order to best assist students in their acquisition process. But no matter what approach we decide to apply in our teaching, if we fail to make students feel motivated, the chance of their learning successfully may be slim. Therefore, how to create, foster, and maintain motivation is something to which foreign language teachers need to pay special attention.

We can take a commonly seen teaching skill for example. Based on the teaching efficacy of English instruction for the past several decades in Taiwan, we can often easily observe that many students, after having learned English for a number of years, are very low-motivated in keeping on learning this language because they still have great trouble naming the objects around them or to express the things they usually do in everyday life. They do not know how to use English to say things like chalks, erasers, or air-conditioners, or how to greet others or tell others what they do before going to school. It is no wonder that this can make students feel very frustrated and unmotivated when finding that years of their foreign language learning should get them nowhere. How can we create or foster motivation under this circumstance? One possible answer is that the teaching that takes account of the 'here and now' expression could play a key role here.

Cook (1999) found that an important characteristic of language spoken to small children is that it is mostly concerned with the 'here and now' idea, rather than the absent objects or abstract ideas that are often talked about in adult conversation. It thus could be of great benefit if teachers can restrict the language spoken to the young beginning L2 learners to make it reflect the 'here and now' idea. This is reminiscent of the audiovisual and situational teaching methods, which lays particular emphasis on the importance of providing learners with concrete visual information through physical objects or pictures in their early stage of acquisition process. In so doing, they can see some possibility of an appropriate social context in which this skill is useful, and thereby become interested or motivated in mastering the target language (Brown, 2000). Accordingly, it is a good approach to teach L2 beginners the 'here and now' expression that is closely related to their real life experiences. This can surely help them not only to build up their confidence in learning this language well but also to become motivated to take the initiative in learning more.

CONCLUSION

Judging from the above discussion, we can see that language learning is indeed a very complex task. Many factors involved in this process need to be taken into account. It is thus conceivable whether we need an early introduction of English in elementary school is still a question open to debate. In addition to the discussion of the critical period hypothesis, the present paper also explores this question from the cognitive and affective points of view and from the findings obtained from empirical studies. More importantly, this question is also examined from the educational factor, that is, the extant English teaching practice in Taiwan. By closely looking into this issue from different perspectives, this paper hopes to dismythicize the existence of a biologically based critical period for L2 learning. As Brown (2000) contends, both older and younger learners have the capacity to learn an L2 successfully at any age. The only difference or limitation may lie in the acquisition of authentic accent, which does not seem to be the quintessential criterion for determining whether L2 acquisition is successful or not.

From what is probed in this paper, age does influence language learning to an extent that cannot be ignored, but this is primarily because it is interweaved with cognitive, affective, and educational and other factors that affect L2 proficiency, not just because there does exist a so-called critical period that makes older learners' language learning impossible (Marinova-Todd, Marshall, & Snow, 2000). As noted above, younger children are often considered quick and effective language learners mainly because their learning can be benefited from the fact that they are not cognitively aware of their language acquisition process and of the social values and attitudes inherent in the target language. Moreover, the fact that their seeming rote learning is often meaningfully contextualized also results in more effective learning. On the affective side, the inhibition, language ego, and learner beliefs children hold may not be as strong as those of adults. This line of argument again makes us tend to assume that younger children are better learners than older children and adults. However, the growing body of empirical studies on the age issue clearly shows that such an assumption may not hold true, especially where younger and older children are compared in formal settings, thus suggesting that there is no strong empirical evidence that can lend

support to our promoting an early-start EFL curriculum at the primary grades.

Learning an L2 in a school setting has something to do with the acquisition of a complex set of skills ranging from oral language proficiency regarding the concrete here and now, such as grammatical, sociolinguistic, and strategic competence, to those abstract language abilities like literacy-related skills (Brown, 1999; Omaggio Hadley, 2001). In addition to satisfying the different learning tasks above, an efficient and effective L2 education also depends on many factors, such as the amount of exposure, appropriately devised programs, the size of the class, well-trained teachers, well-designed teaching materials, a supportive atmosphere, and the careful combination of early language instruction with higher levels of study (McLaughlin, 1980). It goes without saying that the various costs of the new language policy are obviously tremendous. Thus we cannot jump into implementing an EFL curriculum without careful consideration.

Based on the empirical research findings on age differences in L2 acquisition, we can reach the conclusion that, as far as L2 learning in formal settings is concerned, adolescents appear to be better than preteens. Though it is not to say that early exposure to a foreign language is somehow detrimental to younger children, they, as many studies have shown, indeed do not seem to have a better learning proficiency outcome than older children. Moreover, younger learners, as a matter of fact, are suggested to be at a disadvantage over the older because the younger have a relatively limited cognitive and experiential development vis-a-vis the older, even if other conditions are on a equal status or even if the former are considered in a better position than the latter from many of the cognitive and affective points of view.

One thing that has to be clarified here is that this paper does not aim to object to having younger children learn a foreign language (i.e., English—where this paper is concerned) in elementary school. It can be easily heard or found that many younger children do learn a foreign language very successfully and that many even grow up bilingually. This is empirically a well-known fact that cannot be denied or ignored. In addition, no good research findings have shown that early exposure to foreign language instruction is proven detrimental to younger learners' later L2 learning. However, our concern here is not whether younger children can learn a foreign language successfully, but which group, primary graders or high school students, are considered the better learners in school context.

In a nutshell, since implementing an excellent foreign language curriculum certainly entails high costs from the education budget that is now often considered tight, and since it is now an official policy that the students are introduced an EFL curriculum before grade 6, this paper strongly suggests that the authorities need to pay more attention to how to best help primary graders learn the target language. As argued above, rather than think that the problem of Taiwanese students' poor English competence has much to do with the fact that they mostly learn this language after the widely-believed critical period, we would believe that this problem is highly related to the longstanding test-driven teaching practice that mainly focuses on isolated, fractionated, and routinized collections of reading and writing skills. Thus, not only should elementary English teaching be oriented toward proficiency or communicative competence of the equally important four language skills, but the high school L2 curriculum needs to be an effective, consistent, ongoing, and well-planned follow-up for the early-start instruction in primary school. This way, after experiencing the high costs of the elementary EFL program, we can expect that students can benefit most from the new curriculum, that parents and educators will not put themselves in a position that too much is anticipated but too little delivered, and that serious researchers can stop wasting much of their precious time to produce some plausible explanations for the widely held misconception that younger children are relatively better L2 learners.

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從「語言學習愈早愈好」之迷思(myth)分析研究台灣國小英語教學之適切性

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摘　要

台灣去年正式施行的九年一貫課程要求國小五年級學生必須接受英語教育，此一政策的施行與一般廣為大眾採信的「學習語言愈早愈好」的觀念有密切的關係，本文的目的在於從學理性與實證性研究兩大面向來探討語言學習是否真的是愈早開始愈好。就學理性角度而言，將就神經語言學、情感因素、認知能力等三方向來探究；就實證性角度而言，則將參酌大量研究發現來檢驗學理之推論。結果顯示雖然學理性研究似乎偏向支持「愈早愈好」的學習立場，但實證性研究卻證明青少年比國小兒童有更佳之學習效果。因此，現在既然我們已全面性讓國小孩童接受英語教育，我們至少該對外語學習過程有較正確的認識，以便能設計出最能幫助國小學童學好英語之課程。

關鍵詞：關鍵時期假設(critical period hypothesis)、**情感因素**(affective domain)、**認知發展**(cognitive development)