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Using technologies of the self to stimulate students' intelligences in English as a foreign language learning

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USING TECHNOLOGIES OF THE SELF TO STIMULATE STUDENTS' INTELLIGENCES IN ENGLISH AS A FOREIGN LANGUAGE LEARNING

A Project

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ABSTRACT

English is a premier global communicative medium, so proficiency in English is the current goal for people whose first language is not English. In Taiwan, English is considered the official second language. English soon will be one of the required courses in elementary schools. However, the traditional teaching methods and style of tests are designed neither to promote students' communicative competence nor to develop their other abilities and social relationships.

The purpose of this curriculum project is to provide an approach to enrich the process of teaching and learning. This project uses psychological tools to stimulate students' multiple intelligences and to encourage students to know how to manage their learning, so that learning English will no longer be boring; instead, it will be creative and practical.

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CHAPTER ONE

INTRODUCTION

Background of the Project

English is an international language adopted in many countries either as first or second language. It is used in many aspects of society such as education, business, politics, entertainment, and so on. In Taiwan, English class is mandatory in high school and universities as one of the required courses in the education system. For entrepreneurs it is the common language of business if the parties are from different countries. In international political occasions, it is the main language of communication. For example, the United Nations' conferences are recorded in seven languages and English is one of them. For travelers, English is one of the most frequently used languages while they are in foreign countries. Even in daily life in Taiwan, one finds English everywhere such as in medical prescriptions, commercials, etc.

Globalization is the trend in recent years. Therefore, English has become the global communicative medium. In order to communicate globally, proficiency in

English is the current goal for people whose first language is not English.

The Role of English and English Education in Taiwan

In recent years, Taiwan has undergone tremendous economic and political changes. In the past, society was conservative and closed, but now it is a free country where one can express one's opinions, and going abroad is acceptable and common. Due to the rise of multinational business and globalization, basic English communicative ability is essential. More and more people attend English institutes in Taiwan. From young kids to older people, learning English has no age limits. Many people study English because in their jobs they need to cooperate with foreign corporations. Some students are compelled by parents, and some other people learn it because it is a trend. Especially now that English is considered the official second language in Taiwan, it plays a more important role in society than ever before.

Education in Taiwan. In order to go to prestigious schools, students must study hard; however, this single-minded focus becomes a serious problem in Taiwan. Students lose the opportunity to understand interpersonal relationships, to develop other skills, to adapt to a

changing society, and to learn new technology. They do not know what they are capable of and what they truly desire. They do not know how to explore and stimulate the full range of their talents and abilities. Teachers blame students' weaknesses, but do not emphasize their strengths. After a few years of school life, students do not have enough common sense. So when they enter the workforce, they cannot accommodate to the unfamiliar environment. They often lack interpersonal skills and job-related sociability.

Another disadvantage of English education in particular in Taiwan is that teachers always ask students to follow the rules. Lecturing is the only teaching method. Students with other kinds of intelligence such as musical, natural, and interpersonal do not have opportunities to express their strengths. Grammar teaching is the main emphasis in English learning. Taiwanese learners are trained to be good at analyzing sentence structure. The style of tests is always fill-in-the-blanks and multiple choice questions and sentence correction. There are neither listening comprehension classes nor oral communication classes. Developing students' emotional intelligence or other intelligences are not considered to be part of the curriculum. Moreover, students are not

supposed to ask questions or question the teaching methods. In Chinese society teachers stand for authority and power, and students always obey the rules. So, for the most part, students lack creativity, imagination, critical thinking ability, and the ability to study independently.

When I was in junior and senior high school, my English classes consisted of numerous tests and vocabulary memorization. Everyday we repeated the same thing. English class did not appeal to me and I was nervous and tense during class time. We were told that our only duty was to prepare for the Entrance Examination. We did not have social activities, and even our music and art classes were changed to English and math studies.

New Policies in the Education System in Taiwan. The Ministry of Education in Taiwan has recently decided that elementary and junior high school education will be combined into a nine-year education program. English study will be one of the seven required courses: Chinese, Math, Art, Science, Social Science, Second Language (English), and Electives. Computer science will be incorporated into each category. Class hours will be cut down to five days a week and six classes per day. Also, class size will be decreased. Every elementary school will have an English education program.

In addition, it is hoped that the education system will promote students' ability in self-understanding and self-acceptance. Through this new program, students will learn how to communicate and express their viewpoints, discover their strengths and then develop them, cooperate with classmates, solve problems by themselves, perform research, and attain critical judgement. One cannot imagine what will be the outcome of these curriculum reforms, because it takes a long time to modify the current situation and update old teaching methods.

Problems Facing the New System. The shortage of teachers is the first problem. Achieving a small size class requires more instructors, especially English teachers. Right now many English instructors are hired from other institutions or organizations. More teachers can be trained within two years, but the issue of quality of these inexperienced teachers cannot be neglected. The second problem is that there is not yet a viable model curriculum. Although the government keeps assessing the program, an ideal schedule has not been found to institute the new system. Third, how to evaluate the learning effect is another problem. The old standard, which is evaluation through tests, is not yet approved for English study. Some educators and government officials are still working on

this issue. Finding appropriate tests which cover listening, speaking, reading, writing, and multicultural information, is a problem. In order to accomplish effective performance of the new education system, solutions need to be found by addressing these problems as soon as possible.

Target Teaching Level: Elementary

Children in elementary school are poised to learn rapidly. Because of their innate ability, children have better speech perception and recognition than adults do, for instance, distinguishing /b/ and /p/ sounds. Besides, most children are curious about new things. Once they get an answer, they will remember it. Most are excited about new ideas and are highly motivated to learn. This learning stage is an ideal time for them to learn a new language, no matter if it is the first or second language.

One must understand that the goal of learning English is not only for passing a test or finishing a job. Through learning English, one can learn other things in the world. The central function of a language is to communicate, but there are other hidden assets that most people do not realize. Language is a magnificent art. The process of learning a language should be pleasant and pressure-free. Elementary education should incorporate an active and

dynamic learning process to motivate children's learning interests and increase their creative ability. Students' attitude toward learning should be positive and lively.

Contemporary English education in elementary school in Taiwan constitutes a new beginning. It is a challenge in defiance of old educational authorities and teaching methods. Many new teaching resources, including both academic materials and teachers, are needed. Many people with enthusiasm are devoted to elementary English education, and I am striving to be one of them. It is not only a dream for me, but also a responsibility.

Purpose of the Project

Each student is smart in his/her unique way. Teaching involves not only sharing knowledge but also receiving feedback from students. This curriculum project provides an approach to enrich the process of students' learning and teachers' teaching.

Teachers should accept all kinds of students and maximize students' opportunities to become multiply intelligent. Teachers should prepare themselves well to fulfill students' needs. Not only students' linguistic or mathematical intelligences should be developed, but also their other abilities and social relationships. This

project also encourages students to become self-aware and to know how to manage and control their learning. The ideal consequence is that students learn actively, independently, and creatively. They know what they are capable of and know how to improve learning.

Content of the Project

This project aims at using psychological tools to stimulate students' multiple intelligences. Besides this introduction, four chapters are presented in this project.

Chapter Two is a review of current literature that examines five important concepts: archetypes, emotional intelligence, multiple intelligences, critical thinking, and graphical organizers.

Chapter Three presents a theoretical framework based on the five concepts discussed in Chapter Two.

Chapter Four introduces a curriculum unit, Eastern and Western Legends, that incorporates the five concepts. The unit itself is presented in Appendix A.

In Chapter Five, the design and methods used in assessment and purpose of assessment are discussed.

Significance of the Project

The goal of this curriculum is to encourage students' self-understanding, self-motivation, and self-development.

Psychological tools such as critical thinking skills and graphical organizers are effective to stimulate and motivate students' multiple intelligences. The content of this curriculum unit covers Eastern and Western legends, which is interesting and different from traditional texts. Assessment is flexible, with teacher evaluation, students' group evaluation, and self-assessment included. Students will enjoy this language curriculum, making learning no longer boring and insufferable, but rather creative, useful, and fun.

CHAPTER TWO

REVIEW OF LITERATURE

Every student has distinct learning styles and uses an individual set of learning strategies. There is not one single kind of teaching method that is effective for all learners. Teachers should perceive each student as a unique, special, and precious entity. Teachers should work with students' strengths, and yet provide additional mediation for their weaknesses. Students' response to schooling involves feelings. When they feel safe and secure, they are willing to interact with teachers and other students, and learn new knowledge and skills. But a key question remains: How can teachers develop students' emotional qualities in order to help them become more successful in school?

When students know their own and others' characteristics, they respect themselves and others. After achieving self-awareness, students then develop self-acceptance and self-control. Students use emotional intelligence (EI) to adapt. Without EI, students usually act in a defensive way to protect themselves. They study at the level of survival. They just try to finish tasks.

This chapter provides a glimpse into research on the mental and emotional resources that students bring to schooling. These resources range from deep, primordial psychological structures of the mind, to cognitive tools that enhance thinking abilities.

The first concept domain to be reviewed is the theory of archetypes. An archetype is hereditary and is present in the unconscious of the individual. Self-realization is practiced by peeling away the layers of the conscious (Miller, 2000). Research shows that these unconscious forms can be employed to help students gain an understanding of their motivations and actions.

The second key word to be reviewed is emotional intelligence (EI). Emotional intelligence is "used to describe the emotional qualities that appear to be important to success" (Shapiro, 1997, p. 5). Teachers can use the concept of EI to help students understand their own and others' feelings, develop ability to control their emotions, motivate themselves to succeed, develop social skills, and create positive interpersonal relationships.

The third key word to be reviewed is multiple intelligences. Students' intelligence is their singular and collective ability to act and react in an ever-changing world. Students have different abilities and

learn in different ways. Teachers should encourage and respect students' various strengths, and teach and assess based on students' needs.

Critical thinking is the fourth domain of research literature to be reviewed. Critical thinking is the skill that people use to interpret, evaluate, express things accurately, and deal with obstacles that may affect their ability to solve problems and judge things.

The fifth key word reviewed is graphic organizer. Graphic organizers are spatial displays that organize and present information. Graphic organizers are used to show students' thought process, and express intelligence such as spatial intelligence. Each concept will be reviewed in turn.

The Theory of Archetypes

In Jungian psychology, an archetype is the manifestation of the collective unconscious in a given symbol or image. An archetypal image is a theoretical structural component of the mind that derives from the accumulated experiences of humankind (Miller, 2000). "These inherited components are stored in the collective unconscious and serve as a frame of reference with which humans view their world, and also serve as one of the

major foundations on which the structure of the personality is built" (Corsini, 1999, p. 64).

The Structure of Psyche (Mind)

Carl Jung is best known for his theory of the nature of the psyche (Aurelio, 1995). In his theory, psyche, or mind, includes three levels: conscious (ego), personal unconscious, and collective unconscious (Longshore, 2000).

Conscious (Ego). The conscious is centered on, but is not synonymous, with the ego. The ego is how one sees oneself. It shapes one's feelings, memories, thoughts, and perceptions (Epsychlopedia Team, 2000). It is a filter from the senses to the conscious level (Longshore, 2000). The ego is basically a command center of personal identity that controls one's language, acquisition of knowledge, problem solving, reflection, and free will (Miller, 2000).

Personal Unconscious. Jung divided the unconscious into personal unconscious and collective unconscious (Rathus, 1997). The personal unconscious consists of one's forgotten or repressed experiences and desires, which are kept from consciousness by the ego. "These thoughts and experiences may be brought into consciousness by a simple act of will, or may never be brought into consciousness at all" (Miller, 2000, p. 4). These repressed thoughts and emotional experiences--mostly from childhood, when we are

most impressionable--form complexes. Complexes are the fundamental components of the unconscious (Epsychlopedia Team, 2000). Complexes are powerful determinants of behavior, but people usually cannot detect their own. When a person says something or behaves a certain way, in spite of the fact that he/she knows it is unwise, this could be the result of a complex being stimulated. A strong complex will dominate a person's life and a weak complex will drive one in the direction of it, but less strongly (Longshore, 2000). A complex "need not be a hindrance to a person's adjustment" (Longshore, 2000, p. 2). Complexes "can be and often are sources of inspiration and drive that are essential for outstanding achievement" (Aurelio, 1995, p. 351). For example, a strong-willed daughter may resist the influence of her intellectual mother by developing an independent sphere of influence in which her mother has no expertise, thus achieving recognition in her own right (Jung, 1959/1990).

Collective Unconscious. The collective unconscious contains impersonal structural elements that help to pattern one's psyche. According to Jung, it is the most influential psychic system. It is the deepest layer of the human mind, the inherited foundation for the structure of personality. It operates beyond conscious awareness. Many

ancient images are stored there (Longshore, 2000). Miller explains that "The collective unconscious, sometimes referred to as the transpersonal unconscious, contains the cumulative experiences of previous generations (man's ancestral past)" (2000, p. 3). Because it is inherited, it is the same in everyone. According to Jung, humans share a single collective unconscious. It unites people with the world around them in an immediate paranormal or synchronistic sense (Neher, 1996). The collective unconscious contains primitive images, or archetypes, which reflect the history of our species. To Jung, the collective unconscious is a very large part of the psyche, like the huge, unseen bottom of an iceberg (Epsychlopedia Team, 2000).

Jung explains that consciousness is an irregular phenomenon that people experience in early childhood. The conscious scientific mind starts in the matrix of the unconscious mind (Heaney, 1994). The lifelong process of individuation peels away the layers of the conscious, like the layers of an onion, until the enlightened human reaches the inner core of self-realization (Miller, 2000).

Origin of Archetypes

Between 1909 and 1912, when Carl Jung was writing Psychology of the Unconscious, he had the notion of

archetypes. During that period of time, he studied the fantasies of Miss Frank Miller, which had been made publicly available in a book published by his colleague from Geneva, Gustav Flournoy (Stein, 1998). Jung wanted to examine the meaning of these fantasies from his newly emerging viewpoints. His engagement with Miss Miller's fantasy materials became the occasion for Jung to start exploring general patterns in what he would later come to call the collective unconscious (Longshore, 2000). Carl Jung collected a lot of related myths, fairy tales, and religious motifs from all over the world to define Miss Miller's images. He found many similarities between what was going on with Miss Miller and what had happened hundreds of thousands of years in the past (Stein, 1998). "He was awestruck by these amazing parallels, and his mind groped for an explanation of why this woman has spontaneously produced images and themes resembling those of Egyptian mythology, of the aboriginal tribes of Australia, and of the native peoples of America" (Stein, 1998, p. 91). Jung found the archetypal patterns and images in every culture and in every time period of human history. Archetypal behaviors are typical, continuously repeated behaviors among human beings (Miller, 2000).

As quoted in C. G. Jung: Psychological Reflections (Jacobi & Hull, 1978), Jung stated,

> All the most powerful ideas in history go back to archetypes. This is particularly true of religious ideas, but the central concepts of science, philosophy, and ethics are no exception to this rule. In their present form they are variants of archetypal ideas, created by consciously applying and adapting these ideas to reality. For it is the function of consciousness not only to recognize and assimilate the external world through the gateway of the senses, but to translate into visible reality the world within us. (p. 39)

Jung believed that people not only have a personal unconscious that contains impulses and repressed memories, but also an inherited collective unconscious. According to Jung, archetypes are the structural components of the collective unconscious and are basic forces that play an important role in the creation of the world and of the human mind (Corsini, 1999). Jung's concepts of the collective unconscious and archetypes "stemmed from his theory that the libido is psychic energy which expresses itself through universal symbols" (Miller, 2000, p. 4). Jung declared that although archetypes themselves remain

unconscious, they influence human emotions and thoughts and show how people are responsive to cultural themes in stories and films (Rathus, 1997).

Archetypes exhibit an ancestral or universal essence and provide a potential pattern for thought, imagination, or behavior (Neher, 1996). Archetypes are different from instincts. Archetypes and instincts "belong together as correspondences" (Stein, 1998, p. 101). Archetypes are like the spiritual forms of instincts. They are universal and innate and may produce emotional behaviors. Archetypal behaviors are typical, stereotypical, or general, and are repeated among human beings. Archetypal images or symbols are human nature in the universal sense (Mayes, 1999). Although people are raised with different cultural backgrounds, the core image and energy is similar. The energy is inborn and invisible, yet people can see it through images or symbols. Jung believed that the common symbols and ideas he found among different cultures arose from archetypes (Epsychlopedia Team, 2000).

Archetypal images can be found in writings of religion, mythology, or even in daily dreams (Beck, 1999). People can look for the underlying archetypes in every object and action in their everyday environment. There are three techniques for developing the ability to recognize

archetypes. First, archetypes can be recognized from literature. It is usual that stories from mythology, fairy tales, or legends are being played out in daily life. Second, archetypes can be found in characters, objects, scenarios, and settings in dreams. Third, archetypal behaviors can be viewed in nature such as animals and inanimate objects (Stout, 2001).

Ten Important Archetypes

Human life contains an infinite number of possibilities, and those possibilities are based on a limited number of archetypes (Stout, 2001). Some important archetypes that play very significant roles in everyone's personality are the Persona, Shadow, Anima, Animus, Child, Syzygy, Wanderer, Warrior, Magician, and Self.

Persona. Persona is derived from the Latin word meaning "mask." It is the mask, face, or way of appearing appropriate to a specific role or social setting (Corsini, 1999). The Persona archetype enables one to portray a character that is not necessarily his or her own (Longshore, 2000). It does not represent one's true self. The Persona is the mask that one shows publicly, and the intention is to present a favorable impression so that society will accept him/her. One's social ambition is another source of the Persona (Neher, 1996). "The Persona

is the person that we become as a result of acculturation, education, and adaptation to our physical and social environments" (Stein, 1998, p. 109). Based on different situations and in order to meet rules and expectations of the society, people have different personas. According to Jung, this is not unhealthy as long as people do not neglect their true self (Miller, 2000).

Shadow. The Shadow is the counterpart of the Persona and that means the Shadow wants what the Persona does not allow (Kremer, 1999). Jung "wants to highlight the flagrant unconsciousness that most people exhibit" (Stein, 1998, p. 106). The Shadow is the negative side of one's personality, and usually he/she wants to hide this side. Or it may be positive traits that a person is not comfortable with (Mannis, 1997). The Shadow represents the repressed consciousness, so it belongs to the personal unconscious. That means that parts of the large self that are not characteristic of the ego (consciousness) become Shadow. It is unavoidable that every ego has a Shadow. In order to cope with the world, the ego employs the Shadow to carry out protective activities without its knowledge (Stein, 1998). The darkness that is not accepted as a part of the ego is defined as human evil, and it can be found in many stories and myths. According to Mayes (1999),

people project their Shadow onto another persons or groups of people. "In this existentially inauthentic and psychologically destructive move, we deny our own personal darkness by seeing it in another person" (Mayes, 1999, p. 8). Accepting the existence of one's less attractive qualities helps each person become more integrated as a self.

Anima and Animus. Anima and Animus is the "inward face" (Longshore, 2000, p. 2) of the mind. It is defined as a psychic structure that is complementary to the Persona (Stein, 1998). It is the image that constitutes the feminine part of a man or the masculine part of a woman (Miller, 2000). The Anima may appear, for example, as an exotic dancing girl and the Animus may appear as a young man. The forms of the Anima and Animus generally present the condition or the needs of the soul (Heaney, 1994).

Anima is the name for the male inner, or suppressed, self. This archetype represents the feminine characteristics of males that are not a part of the ego (Corsini, 1999). The Anima (from Latin, meaning "spirit") determines how a male perceives the opposite sex. Man has developed the Anima archetype by exposure to women over many generations; therefore, the Anima is a collective

image of women that a man has inherited (Davis, 2000). The Anima has strong connection with the function of feeling. Usually a man who is frequently moody is said to have an Anima problem. His emotional reactions are too powerful for him to manage. We can find stories that the hero rescues a female in distress are the archetype of the Anima (Stein, 1998).

Animus is the name for the female inner self. In Jungian analytic psychology, the Animus is the masculine component of the female personality, an archetype representing the racial experience of women with men (Corsini, 1999). The Animus (from Latin, meaning "mind") has strong connection with the function of thinking. Women developed the Animus archetype by continuous exposure to men over many generations. According to Miller, "the masculine qualities of animus include courage, initiative, intuition, objectivity, and spiritual wisdom" (2000, p. 6). A woman with an Animus problem is also overcome by her unconscious, similar to a man's Anima problem. Stories of the prince being awakened by the loving female kiss feature the archetype of the Animus (Stein, 1998). Both men and women can grow in self understanding if they are able to integrate their unconscious, other-gender parts into awareness.

Child. The Child archetype represents the hope and promise for new beginnings. According to Jung, the Child archetype promises that Paradise can be regained. Child images like the New Year's Babe derive from this archetype. The golden ring, the golden ball, and most flower and circle-related images are also from this archetype. Moreover, the birth of the Christ Child is a powerful event because the Christ Child unites Heaven and Earth and Man and God (Davis, 2000). As the ego matures, the ability to draw upon childlike joy helps maintain life's energy and beauty.

Syzygy (Divine Couple). The Syzygy archetype is the pattern of integration and wholeness. If one comes to terms with the Shadow and the Soul, one will encounter the enchanted castle with its King and Queen. That is the outer and the inner life joined in marriage. From the integration, great power arises. Christ and the Church, God and Israel are images of the Syzygy archetype (Davis, 2000).

Wanderer. The Wanderer is exemplified by the story of explorers who travel alone to explore the world. It implies that the beginning of life is an adventure. The Wanderers try to give up old social roles and want to find out what they really want and who they are (Pearson,

1989). "Wanderers may be self-made men or women of business, or hippies living on the edge of society, but they definitely will define themselves in direct opposition to a conformist norm" (Pearson, 1989, p. 51). The Wanderers learn by seeking. For example, a learner does not trust what authorities say, but tries to search out his or her own truths. Of course, the Wanderers sometimes experience uncertainty, but "the hard time of the soul often leads them to a more mature and adequate faith" (Pearson, 1989, p. 52).

Warrior. "The Wanderer identifies the dragon and flees; the Warrior stays and fights" (Pearson, 1989, p. 74). People say that the Warrior archetype is the definition of heroism. The true meaning of this archetype is that people bravely fight for themselves and show that they can change the world. The Warrior archetype helps us discover and claim our physical, intellectual, and spiritual power and declare our individuality in the world. The Warriors' way of learning involves continuous hard work. The Warriors believe in defense, that everyone has the basic right to be alive. Men, after they have fully experienced the Warrior archetype, often want to develop other sides of themselves. Women try to make the culture define them as male, and accept them; and then

they learn to express their own intelligence and abilities (Pearson, 1989).

Magician. The Magician archetype teaches people to be creative and tells that they are co-creators of the natural world. Magicians understand the importance of balance in the universe and how the choices they make about their lives help to promote or destroy this balance. The Magician shares the archetype with everyone else so he/she is not unique in the world. Everyone is the Magician in some way because one cannot live without arranging and managing one's life. When people believe that they create their own world, they will be more responsible for their own lives (Pearson, 1989). "The Magician learns that he/she is not life's victim; he/she is part of the unfolding of God" (Pearson, 1989, p. 117). Thus the power to create and manage reality is an important facet of personal growth.

Self. The Self is the most fundamental feature of Jung's entire vision because it is the key to his psychological theory (Stein, 1998). It is basically the center of the whole person. It represents that all archetypes work together or all components, which include archetypes and personalities, are part of the Self (Heaney, 1994). The Self contains many parts of the

entity, including the ego (conscious). The meaning of the word "Self" is different from the meaning commonly used. It is more than one's subjectivity. It is the most impersonal archetype. If people say someone is self-centered, it means that he/she is "not personally reactive or easily thrown off balance" (Stein, 1998, p. 152). The Self's task is to hold the psychic system together and keep it balanced, integrated, and interrelated. Its goal is unity, which is dynamic but not static (Stein, 1998). The Self is a unifying force of personality that gives direction and purpose to human behavior and aims to provide the personality with wholeness or fullness (Rathus, 1997). Stein states that "it may be that the Self has the highest form of self-awareness and shares this with ego, which in turns shows this property most strongly within the more familiar regions of the psychic world" (1998, p. 160).

The Benefits from an Understanding of Archetypes

Understanding archetypes helps people gain self-awareness, self-control, self-motivation, empathy, and relationship skills (Stout, 1989). People will recognize what they share in common with other human beings. With this, people understand one another's thoughts, feelings, and behaviors so that they can

communicate with each other and exchange experiences (Mayes, 1999). Therefore, there will be fewer unpleasant relationship conflicts. Everyone is linked with others; so people can solve problems together, improve their lives to attain new levels of self-realization, and then create a new world. Life will become simpler as we confront not a large and confusing number of relationships, but instead can see these as exemplifying the same one or two archetypes (Stout, 1989). As Stout says, "When we understand the nature and dynamics of those archetypes, our future relationships improve" (1989, p. 2).

According to Jung, human beings share the same collective unconscious. The collective unconscious contains archetypes, which reflect the history of our species and play an important role of human mind. Archetypal behaviors are repeated among humans and archetypes influence our emotions and thoughts (Miller, 2000). Understanding archetypes is one way to help people gain emotional intelligence, improve interpersonal relationships, and work together with fewer conflicts. This improvement in interpersonal relationships can prove useful in such areas as intercultural communication, a key feature of EFL teaching.

Emotional Intelligence

According to The Dictionary of Psychology, intelligence, generally, is "wisdom, cognitive capability, intellectual acumen, and ability to profit from experience" (Corsini, 1999, p. 494). It is "a person's capacity to act purposefully, to think rationally, and to respond effectively to the environment" and "a capacity for knowledge and the knowledge possessed" (Corsini, 1999, p. 494). Intelligence is perceived as an underlying competence, or a learning ability. Most psychologists agree that intelligence provides the cognitive basis for academic achievement (Rathus, 1997).

Measurement of Intelligence

The intelligence scale/test is an examination composed of mental tasks of graded difficulty standardized by use on a representative sample of the general age-peer population. The commonsense notion that academic achievement depends on children's intelligence led Alfred Binet and Theodore Simon to invent measures of intelligence early in this century. The first version was the Binet-Simon Scale, which was an instrument that could identify children who are unlikely to profit from the regular classroom and so needed to receive special attention. The current version is the Stanford-Binet

Intelligence Scale (SBIS). The SBIS yields an intelligence quotient (IQ) (Rathus, 1997). The intelligence quotient is a measure of intelligence based on psychological tests, originally calculated by dividing the mental age (MA) by the chronological age (CA), and multiplying by 100 to eliminate the decimal (Corsini, 1999). The average test result at any age level is defined as an IQ score of 100. A student whose IQ score is higher than 130 should be placed in the superior level. On the other hand, a student whose IQ score is lower than 70 is defined as intellectually deficient (Rathus, 1997). Thus intelligence as a concept is largely defined by one's results on some kind of normed scale.

The Origin of Emotional Intelligence

In contract to intellectual ratings, emotional intelligence refers to "the capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships" (Goleman, 1998, p. 317). This explains abilities distinct from intellectual intelligence. Howard Gardner, a Harvard psychologist, pointed out the distinction between intellectual and emotional capacities in 1983 (Goleman, 1998). The concept of emotional intelligence, which is often called EQ for

Emotion Quotient, was developed by Dr. Peter Salovey of Yale University and Dr. John Mayer of the University of New Hampshire in 1990. Their theory was popularized by psychologist and journalist Daniel Goleman's 1995 best-selling book, Emotional Intelligence (Cobb & Mayer, 2000). The Dictionary of Psychology, in defining emotional intelligence, offers two definitions. First, emotional intelligence is "the ability to deal effectively with other people that involves empathy for others, control of impulses, and conflict resolution" (Corsini, 1999, p. 326). Second, it is "an ability of people to identify their own and others' emotions accurately, to use their emotions to motivate themselves and others, to spur creativity, and to deal empathetically with others" (Corsini, 1999, p. 326). Emotional intelligence is similar to Howard Gardner's intrapersonal and interpersonal domains of intelligence. People with high EQ manage their own emotional life well and understand the feelings of others. EQ is more powerful than IQ (Goleman, 1995). Emotional intelligence includes ways to be smart not measured by IQ and it offers "the potential to integrate the reasoning of a person's head and heart" (Cobb & Mayer, 2000, p. 14). IQ hardly can explain the different destinies of people with roughly equal schooling, and

opportunity. The most important distinction between IQ and EQ is that EQ is much less genetically loaded, providing an opportunity for educators to pick up where nature left off in determining a child's chances for success (Shapiro, 1997).

Emotional intelligence is the capacity in people to recognize their own and others' feelings and emotions. People with emotional intelligence are more likely to have better relationships with others, and can manage their lives well (Ormsbee, 2000).

The Five Dimensions of Emotional Intelligence

Emotional intelligence was used to describe the emotional qualities that appear to be important to success, which include empathy, expressing and understanding feelings, controlling one's temper, adaptability, independence, being well-liked, interpersonal problem solving, persistence, kindness, friendliness, and respect (Shapiro, 1997). Daniel Goleman identified five areas of core emotional and social competencies that children need in order to succeed in life: self-awareness, self-control, self-motivation, empathy, and relationship skills (Shelton, 2000). The first three competencies determine how well people manage

themselves. The last two competencies influence how well people handle relationships (Smigla & Pastoria, 2000).

Self-awareness. Self-awareness means recognizing one's emotions, strengths and weakness, and capabilities (Smigla & Pastoria, 2000). It is the ability to recognize and identify a feeling (Kagan, 1981). The ability to monitor feelings from moment to moment is crucial to self-understanding (Goleman, 1995). Before children can manage emotions, they need to know what it is they are feeling (Greenberg, 1969). Awareness of one's own emotions is the most fundamental component of EQ. "Self-awareness can be a nonreactive, nonjudgmental attention to inner states" (Goleman, 1995, p. 47). The most basic emotions that people experience are love, anger, surprise, disgust, happiness, sadness, and fear (Ratliffe & Herman, 1989). People experience multiple feelings in different degrees of intensity. Emotions often interact. People who are aware of and understand their own emotions are more likely to control themselves (Rovenger, 2000).

Self-control. Self-control deals with managing emotions and impulses, maintaining integrity, and taking responsibility for one's performance (Smigla & Pastoria, 2000). Handling feelings is an ability that builds on self-awareness (Foster, 1974). Self-control is the ability

to handle anger, fear, sadness, anxiety, or pervasive worrying in appropriate and proportional ways (Rovenger, 2000). Strong emotions such as anxiety, depression, or rage may result in inappropriate behaviors (Callahan, 1999). During an emergency, "the brain falls back on simple, highly familiar routines and responses and puts aside complex thought, creative insight, and long-term planning" (Goleman, 1998, p. 74). Three skills necessary to achieving self-control are managing impulsive feelings and distressing emotions, staying composed, positive, and unflappable, and thinking clearly and staying focused under pressure (Goleman, 1998). People who are poor in self-control are "constantly battling feelings of distress, while those who excel in it can bounce back far more quickly from life's setbacks and upsets" (Goleman, 1995, p. 43). Individuals with low self-control are often careless, impulsive, restless, and risk-seeking (Nakhaie, Silverman & Lagrange, 2000). There are several appropriate anger-management approaches that can help people handle their anger constructively: breathing techniques for relaxation, listening to soothing and quieting music, stopping and thinking, doing exercise and physical activity, and changing negative feelings into positive actions (Windell, 1999).

Self-motivation. Self-motivation focuses on meeting organizational goals, taking the initiative, and maintaining excellence (Smigla & Pastoria, 2000). Self-motivation drives one person to disregard competitors, critics, and negative thinkers (Parachin, 1999). Motivating oneself includes emotional self-control and the ability to delay gratification. "It involves having a hopeful attitude and the mental disposition to expect success" (Rovenger, 2000, p. 40). Self-motivation enables people to set higher goals and expectations for themselves and work hard to achieve success. People with self-motivation tend to be more effective and productive in the work place (Kim, 1996). Positive thinking is a great motivator (Glennon, 2000). "People who are hopeful evidence less depression than others as they maneuver through life in pursuit of their goals, are less anxious in general, and have fewer emotional distresses" (Goleman, 1995, p. 87).

Empathy. Empathy is the ability to know other people's thoughts, perspective, and emotions (Bullmer, 1975). It requires reading the feelings of others and includes developing others, leveraging diversity, and understanding others' needs (Smigla & Pastoria, 2000). It is the recognition of, and sensitivity to, other peoples'

feelings. "Empathy builds on self-awareness; the more open we are to our own emotions, the more skilled we will be in reading feelings" (Goleman, 1995, p. 96). It is difficult to understand the emotions of others if we are unaware of our own emotions. The mode of emotions is usually nonverbal. One way to intuit another's feelings is in the ability to read nonverbal channels: tone of voice, gesture, facial expression, and so on (Segal, 1997). People who possess empathy are more socially well-adjusted and get along well with others (Goldstein & Michaels, 1985). Empathy inspires other positive virtues such as compassion and respect (Ciaramicoli & Ketcham, 2000).

Relationship Skills. Relationship skills, often called social skills, deal with handling others' feelings artfully; therefore, inducing desirable responses. This requires listening, conflict management, leadership, and collaboration (Johnson, 2000). Teamwork, which has been identified as a necessary skill for organizational success, also falls in this area (Smigla & Pastoria, 2000). Handling relationship or social skills helps people to connect and interact with others in a positive way. Social skills training will lead to improved student behavior (Peterson, Young, West & Peterson, 1999). Students with relationship skills care about others. They

are good listeners and can clearly express their own feelings and thoughts (Brammer, 1988). Social skills underlie five competencies: wielding effective tactics of persuasion, sending clear and convincing messages, negotiating and resolving disagreements, inspiring and guiding, and initiating, promoting, or managing change (Goleman, 1998). "These are the abilities that undergird popularity, leadership, and interpersonal effectiveness" (Goleman, 1995, p. 43).

According to Goleman (1995), the five dimensions of emotional intelligence (self-awareness, self-control, self-motivation, empathy, and relationship skills) are the qualities that people need in order to well manage themselves, handle interpersonal relationships, and interact with others in a positive way.

Implications for Educators

"Educators, long disturbed by schoolchildren's lagging scores in math and reading, are realizing there is a different and more alarming deficiency: emotional illiteracy" (Goleman, 1995, p. 231). Signs of the "EQ" deficiency are violent incidents. Students need lessons in settling disagreements peaceably and handling emotions. In the emotional literacy program, run by Goleman, after-school sessions offer students the opportunity to

learn "basic emotional skills, including handling disagreements, thinking before acting, and, perhaps most important, challenging the pessimistic beliefs associated with depression, for example, resolving to study harder after doing poorly on an exam instead of thinking: I'm just not smart enough" (Goleman, 1995, p. 246). As the result of an emotional literacy program, students have fewer classroom disruptions and misbehaviors, and less anxiety. Instead, such programs promote self-esteem, communication skills, and positive interpersonal relationships (Cobb & Mayer, 2000).

The emotional literacy programs work best when the lessons at school are coordinated with what goes on in students' homes. Many emotional literacy programs help parents deal more effectively with their children's emotional life. Therefore, students get consistent messages about emotional competence in all parts of their life. The teaching of emotional knowledge has been a facet of some curricula for years and it makes emotions and social life themselves topics (Goleman, 1995). Developing students' emotional competencies would make a campus a "caring community, a place where students feel respected, cared about, and bonded to classmates, teachers, and the school itself" (Goleman, 1995, p. 280). Students who can

control and manage themselves well are more successful in school and social life (Berns, 2001). In a multicultural environment, students with emotional intelligence are more likely to "respect and relate well to people from varied backgrounds" (Goleman, 1998, p. 154) and "see diversity as opportunity, creating an environment where diverse people can thrive" (p. 155).

Although there are many paths to success in life, "much evidence testifies that people who are emotionally adept--who know and manage their own feelings well, and who read and deal effectively with other people's feelings--are at an advantage in any domain of life" (Goleman, 1995, p. 36). People with well-developed emotional competence are more likely to be effective and content in their life.

Multiple Intelligences

According to the traditional definition of intelligence, intelligence is a cognitive capacity people are born with. Every person has a fixed amount of intelligence. Intelligence consists of ability in logic and language. "Intelligence is defined operationally as the ability to answer items on tests of intelligence" (Gardner, 1993, p. 15). It is viewed as a single ability

that can be easily measured by an IQ test such as the Stanford-Binet Intelligence Scale (Collins, 1998). IQ tests are used to discover a student's intellectual shortcomings and as a way to rank students as more or less capable in school. Schools focus most of their attention on linguistic and logical-mathematical intelligence. However, a student may have other important abilities that are not measured by IQ tests (Armstrong, 2000). IQ tests "fail to indicate how students will do after they get out into the real world" (Armstrong, 1993, p. 8).

According to Howard Gardner, a professor at the Harvard Graduate School of Education, intelligence is "the ability to solve problems, or to fashion products, that are valued in one or more cultural or community settings" (Gardner, 1993, p. 7). Gardner set eight criteria for an intelligence to be identified and to stand-alone: identifiable core operations, evolutionary history and evolutionary plausibility, recognizable end-states and distinctive developmental trajectory, distinguished by presence or absence of specific abilities, potential isolation by brain damage, support from experimental psychological tasks, support from psychometric findings, and susceptibility to encoding in a symbol system (O'Brien & Burnett, 2000). Gardner believes that intelligence is

multifaceted. Everyone has several separate intellectual capacities. Each capacity deserves to be called an "intelligence" because they can be so different from one another. Intelligence is not fixed. People's intellectual capacity can be developed and there are many ways to be smart (Gardner, 1993).

Eight Kinds of Smart

Students are each smart in different ways. Gardner first proposed the Theory of Multiple Intelligences in his book Frames of Mind in 1983. Multiple intelligences theory is a pluralized way of understanding the intellect. The Theory of Multiple Intelligences challenged the traditional beliefs of intelligence in the field of education (Chase, 1998). Gardner claimed that every human being possesses all eight intelligences in varying amounts: linguistic intelligence, logical-mathematical intelligence, spatial intelligence, bodily-kinesthetic intelligence, musical intelligence, interpersonal intelligence, intrapersonal intelligence, and naturalist intelligence. Gardner believes that "each kind of intelligence has its neurological base in a different area of the brain" (quoted in Rathus, 1997, p. 371). He defined the first seven intelligences in 1983 and added the last one in 1998 (McKenzie, 1999).

Linguistic Intelligence (Word Smart). Linguistic intelligence relates to words and language. People use this intelligence in speaking, listening, writing, and reading (O'Brien & Burnett, 2000). Students show they are "word smart" when they write clearly, spell easily, tell stories, and play with words. Linguistic intelligence includes well-developed verbal skills and sensitivity to the meaning and sounds of words. It is the ability to use language, either the native language or other languages, to express one's opinions and to follow rules of grammar. Students who demonstrate strength in the language arts tend to be successful in traditional classrooms because their intelligence lends itself to traditional teaching. Authors, poets, journalists, public speakers, and comedians are examples of people with linguistic intelligence (Armstrong, 1993).

Logical-Mathematical Intelligence (Number/Reasoning Smart). Logical-mathematical intelligence is logical and mathematical ability as well as scientific ability. It deals with deductive and inductive reasoning, numbers, and numerical relationships. It is the ability to recognize patterns, make connections between pieces of information, and think things through in a logical and systematic manner (O'Brien & Burnett, 2000). It is the capacity to

think conceptually and discern numerical patterns. Students with this intelligence do well in traditional classrooms where teaching is logically sequenced and students are asked to conform. Engineers, accountants, economists, computer programmers, mathematicians, detectives, researchers, astronomers, and scientists are examples of people with logical-mathematical intelligence (Armstrong, 1993).

Spatial Intelligence (Picture Smart). Spatial intelligence relates with visual arts, navigation, and architecture (O'Brien & Burnett, 2000). It is the ability to visualize accurately, think in images, visualize a future result, and imagine things in one's mind's eye. It is also the capacity to perceive the world accurately, and to be able to recreate one's visual experience. Students who learn best visually and organizing things spatially like charts, graphs, tables, maps, and puzzles (Sweet, 1998). Students think in pictures by using their spatial intelligence, and can use visualization and imagination. People with spatial intelligence are usually architects, sailors, sculptors, artists, designers, decorators, cartographers, and photographers (Armstrong, 1993).

Bodily-Kinesthetic Intelligence (Body Smart). Kinesthetic intelligence deals with physical movement and

the knowledge of the body. It includes the ability to interpret and invoke body language, and use the body skillfully to solve problems, present ideas, and express emotions (O'Brien & Burnett, 2000). It is the capacity to control one's bodily motions and handle objects skillfully. It is displayed for dancing, acting, athletic pursuits, or in building and construction. Students display this intelligence through games, hands-on tasks, and movement. Students show their "body smart" when they unite mind and body to perfect physical performance (Sweet, 1998). Examples of people who put their "body smart" to work are dancers, swimmers, jugglers, instrumentalists, athletes, gymnasts, and surgeons (Armstrong, 1993).

Musical Intelligence (Music Smart). Musical intelligence includes the ability to recognize tonal patterns and rhythm, make or compose music, sing well, and appreciate music. It is sensitivity to human voice, environmental sound, musical instruments, and so on (O'Brien & Burnett, 2000). Using this intelligence, students learn through rhythms, songs, instruments, and musical expression. Students show they are "music smart" when they can gain meaning from music, play an instrument, sing, and listen to music frequently. This is a talent

enjoyed by composers, musicians, singers, conductors, instrumentalists, and recording engineers (Armstrong, 1993).

Interpersonal Intelligence (People Smart). Interpersonal intelligence is used in interpersonal relationships. It includes the ability to understand other people's feelings, communicate with others, work effectively with them, display empathy, and notice their goals and motivations (O'Brien & Burnett, 2000). It is the capacity to respond appropriately to the emotions, intentions, and desires of others and the ability to notice and make distinctions among other individuals. Students show they are "people smart" when they are sensitive to others' feelings, are people-oriented and outgoing, make and maintain friends easily, and they are good leaders. Those with this intelligence learn cooperatively with a partner or in groups, by interacting with others. These students may be identified as talkative in a traditional classroom. This is a vital intelligence displayed by teachers, politicians, therapists, sales people, actors, sociologists, and religious leaders (Armstrong, 1993).

Intrapersonal Intelligence (Self Smart). Intrapersonal intelligence is the ability to be

self-aware, self-analyze, assess one's accomplishments, review one's behaviors, make plans, set goals, and deal with inner feelings and thinking processes. It refers to having an understanding of oneself, of knowing what he/she can do, what he/she wants to do, how he/she reacts to thing, which things to avoid, and which things to gravitate toward. Students show they are "self smart" when they are in touch with their own ideas and feelings, enjoy private time to think, and set and meet goals. Students with strong "self smart" have their own opinions and beliefs and know themselves well. They often learn best when they are given time to formulate their ideas, process information, and reflect on their learning. Counselors, theologians, psychologists, psychiatrists, and philosophers are examples of people who have this form of intelligence (Armstrong, 1993).

Naturalist Intelligence (Nature Smart). Naturalist intelligence is the sensitivity and ability to tackle deep questions about human existence and the nature, make other consequential distinctions in the natural world, and use this ability productively such as farming and hunting. It is the capacity to understand, categorize, classify, and comprehend things encountered in the natural world. Students with strength in this intelligence like animals

and outdoors. Students show they are "nature smart" when they have an awareness of the natural world and discriminate natural items such as flowers, trees, and animals and non-natural items such as cars. Farmers, biologists, conservationists, ecologists, zoologists, oceanographers, and environmentalists display aspects of this intelligence (Armstrong, 1993).

Students show their "smarts" in different ways. Gardner defined eight kinds of intelligences that every person possesses in varying amounts: linguistic intelligence, logical-mathematical intelligence, spatial intelligence, bodily-kinesthetic intelligence, musical intelligence, interpersonal intelligence, intrapersonal intelligence, and naturalist intelligence. Each intelligence should be developed in its unique ways. Teachers should teach and assess differently based on students' needs because every student has his/her own intellectual weaknesses and strengths.

Developing Varied Intelligences

There are some ways to exercise and develop different intelligences. Linguistic intelligence may be exercised through listening to recordings, reading interesting books, playing wordboard or card games, participating in conversation and discussions, explaining a concept, giving

a speech, writing a play, and learning a second language. Logical-mathematical intelligence may be exercised through playing number and logic games, classifying and sequencing activities, analyzing data, synthesizing ideas, solving math problems, doing calculations, and solving various kinds of puzzles. Spatial intelligence may be developed through experiences in the graphic and plastic arts, solving mazes and other spatial tasks, sharpening observation skills, designing a brochure, playing with colors, watching films, using graphic organizers, and exercising active imagination. Bodily-kinesthetic intelligence may be exercised by playing with blocks and other construction materials, playing various active sports and games, dancing, participating in plays or make-believe, acting out a role, learning sign language, and using various kinds of manipulatives to solve problems. Musical intelligence may be exercised by engaging in rhythmic games and activities, singing, dancing, listening to a variety of recordings, composing a melody, evaluating music, interpreting lyrical meanings, and playing various instruments. Interpersonal intelligence may be exercised through group projects and discussions, cooperative games, multicultural books and materials, dramatic activities, role-playing, debates, and

team presentation. Intrapersonal intelligence may be exercised through reading illuminating books, participating in independent projects, keeping a diary, finding quiet places for reflection, reading silently, writing an autobiography, expressing likes and dislikes, observing mood changes, and imaginative activities and games. Naturalist intelligence may be exercised by exploring nature, going to a zoo, taking a nature hike, collecting specimens, planting a tree, observing planets, making collections of objects, grouping them and studying them (Dickinson, 2001).

Traditionally, academic subjects have been taught in ways that largely involve linguistic and logical-mathematical intelligences. IQ tests basically measure ability with words and numbers, so students who are naturally strong in mathematical and linguistic intelligences usually do well on IQ tests. Although linguistic and mathematical intelligences are important, there are six other intelligences (Gardner & Hatch, 1989). According to Gardner, "assessment of deficiencies can predict difficulties the learner will have; moreover, it can suggest alternative routes to an educational goal" (Gardner, 1993, p. 31). Assessments of an individual's

multiple intelligences can foster problem-solving and alternative learning styles (Granat, 1997).

Using pedagogy based on the Theory of Multiple Intelligences is one of the best ways to motivate students from inside rather than by threat or promise of reward. Multiple intelligences pedagogy implies that teachers teach and assess differently based on individual intellectual strengths and weaknesses. Teachers develop strategies that allow for students to demonstrate multiple ways of understanding. The multiple intelligences approach provides opportunities for authentic learning based on students' talents and needs. Based on the Theory of Multiple Intelligences, teaching or learning should be connected with words (linguistic intelligence), numbers or logic (logical-mathematical intelligence), pictures (spatial intelligence), physical experiences (bodily-kinesthetic intelligence), music (musical intelligence), social experiences (interpersonal intelligence), self-reflection (intrapersonal intelligence), and/or experiences in the natural world (naturalist intelligence) (Armstrong, 2000). Students will be able to develop their strengths, leading to increased self-esteem. When students understand how they are intelligent, they start to manage their own learning and

value their strengths (Gardner, 1999). Students can use their different "smarts" to learn a language. When students know their strengths and have self-confidence, they are willing to speak in a language class, which helps in their second language acquisition.

Critical Thinking

Critical thinking is the term used today to denote problem-solving ability. It is a topic that emerged in the 1980s. Throughout the nation, critical thinking skills were discussed at conventions, conferences, and workshops (Sadler, 1993).

Critical thinking is important in solving problems and resolving issues (Morgan & Shermis, 1989). Ruggiero (1984) claimed that good thinkers and poor thinkers differ in their ability to control their thoughts. Ruggiero (1984) defined four qualities of good thinkers. First, such thinkers look at an issue, react to it, and then assess their reaction before accepting it. Second, they carefully determine the kind and amount of evidence needed to solve a problem and conduct their inquiry patiently. Third, they draw their conclusions to fit the facts, keeping their judgement tentative wherever the facts will not support a firm answer. Lastly, when facing with a new

problem that is similar to the one that they have met previously, they resist the temptation to use the previous, ready-made solution.

Ruggiero (1984) explained four qualities of poor thinkers. First, they look, react, and then accept their reactions uncritically. Second, they either rush through their inquiry carelessly or ignore the need for evidence. Third, they let their feelings decide their conclusions. Fourth, they spare themselves the effort of thinking whenever they can.

Definition of Critical Thinking

Critical thinking is "an approach to thinking characterized by skepticism and thoughtful analysis of statements and arguments" (Rathus, 1997, p. 23). By thinking critically, people reconsider and evaluate other's arguments and claims and use their own analytical abilities to judge the accuracy of information. According to Rathus (1997, p. 22), critical thinking has more than one meaning:

> On one level, critical thinking means taking nothing for granted. It means not believing things just because they are in print or because they were uttered by authority figures or celebrities. On another level, critical thinking refers to analyzing

and probing the question, statements, and arguments of others. It means examining the definitions of terms, examining the premises or assumptions behind arguments, and scrutinizing the logic with which arguments are developed.

Critical thinking includes skills such as understanding concepts, cause-effect relationships, generalizations, part-whole and whole-part connections, analogies, and applications of principles to real-life situations (Ornstein & Levine, 2000).

As quoted in Awakening Student's Critical Thinking Powers through Logic Problems (Sadler, 1993, p. 359), Manzano defined critical thinking as "reasonable, reflective thinking that is focused on deciding what to believe or do." People should examine and reanalyze other people's claims and decide to believe them or not.

Ennis defined critical thinking as a person's ability to evaluate statements (1985). "A person is a critical thinker if and only if she has the skills, abilities, or proficiencies necessary for the correct assessing or statements" (Siegel, 1988, p. 6). McPeck's conception of critical thinking is "the ability to assess reasons properly" and "the willingness, desire, and disposition to

base one's actions and beliefs on reasons" (quoted in Siegel, 1988, p. 23).

Decision making and problem solving depend on critical thinking. When people think critically, they evaluate the accuracy of statements and reasoning that leads to conclusions (Ruggiero, 1984). Critical thinking helps people "interpret complex ideas, appraise the evidence offered in support of arguments, and distinguish between reasonableness and unreasonableness" (Ruggiero, 1984, p. 13).

According to Grant, the definition of critical thinking is it is "the ability to identify and formulate problems as well as the ability to propose and evaluate ways to solve, to recognize and use inductive and deductive reasoning and to recognize fallacies in reasoning, to draw reasonable conclusions from information found in various sources, to defend one's conclusions rationally, and to distinguish between fact and opinion" (1988, p. 35).

Adams and Hamm defined critical thinking as "the ability to raise powerful questions about what's being read, viewed or listened to" (1990, p. 39). Effective thinking can stimulate and promote people's abilities in decision making and problem solving.

According to Kurfiss, critical thinking is "an investigation whose purpose is to explore a situation, phenomenon, question, or problem to arrive at a hypothesis or conclusion about it that integrates all available information and that can therefore be convincingly justified" (1988, p. 2). All assumptions should be open to question and the inquiry should not be biased in favor of a particular conclusion.

Obstacles to Critical Thinking

Ruggiero (1984) explained nine problems that may be the obstacles to critical thinking and suggested how to deal with them.

Mine is Better. It is natural that people like their own possessions—including their own thoughts and views--better than others' possessions. "Our possessions are extensions of ourselves" (Ruggiero, 1984, p. 43). The problem is that some people do not understand that each person has his/her special viewpoint. It keeps their vision shortsighted and perspective narrow. Controlling "mine is better" thinking is the way to deal with this problem. People should be alert for the signal "mine is better."

Resistance to Change. People prefer patterns of acting that they know; therefore, they prefer ideas that

are not strange. Usually people think that new ideas threaten their fixed beliefs. People resist change because the new and the unfamiliar threaten their sense of security. In order to overcome the resistance to change, people should recognize when they to react negatively to new ideas and should "judge the idea on the basis of your critical appraisal and not your initial reaction" (Ruggiero, 1984, p. 53).

Conformity. "Conformity is behaving the way others around us do" (Ruggiero, 1984, p. 56). People do things based on what other people think because of the pressure of the group. The way to avoid conformity is neither to be selective in the evidence one considers nor to prefer the majority or the minority view.

Face-saving. It is natural that people want to see themselves affirmatively: as intelligent, wise, responsible, observant, generous, thoughtful, courageous, careful, and so on. However, those natural desires often prompt people to "resort to face-saving maneuvers" (Ruggiero, 1984, p. 63). Face-saving may block growth in self-awareness. The way to control face-saving tendencies is to be honest with oneself. People should distinguish between what they wish were so, and what is so.

Stereotyping. Stereotype is a form of generalization. When people generalize, they group other people, places, or things according to the traits that they have in common. "People who think in terms of stereotypes tend to be selective in their perceptions" (Ruggiero, 1984, p. 72). They reject anything that may challenge their preformed judgement. People should think critically to evaluate everything on what it is at the particular time, place, and circumstance, but not on preconceived notions.

Faulty Common Sense. Some commonly held views that seem wise actually are mistaken; for example, "the belief that an early start in school increases a child's chances for academic achievement" (Ruggiero, 1984, p. 79). In order to avoid faulty common sense, people should regard every appeal as faulty, and examine it critically until it is proven.

Oversimplification. The world is complex, so simplification is a necessary activity. Although simplification is useful, oversimplification is an obstacle to critical thinking. Oversimplification "twists and distorts" the ideas (Ruggiero, 1984, p. 84). As a critical thinker, people have the responsibility to choose the most reasonable view and consider all sides before making a judgement.

Hasty Conclusions. Some people make conclusion before they obtain sufficient evidence. The cause of hasty conclusions is that some people's major concern in thinking is convenience. So they accept conclusions uncritically. "It is important not to rush to conclusions because once we form any conclusion, our curiosity in the matter is diminished" (Ruggiero, 1984, p. 92). People should be sure to identify and answer all important questions pertaining to the issue before drawing any conclusion.

Unwarranted Assumptions. It is natural to make assumptions, but usually many of them are warranted. "What make an assumption unwarranted is taking too much for granted" (Ruggiero, 1984, p. 96). The way to avoid unwarranted assumptions is to "develop the habit of reading and listening between the lines for ideas that are unexpressed but nevertheless clearly implied" (Ruggiero, 1984, p. 106).

In summary, according to Ruggiero (1984), in order to be critical thinkers, people should control the "mine is better" thinking, accept new ideas, avoid conformity, be honest with themselves, evaluate everything critically, regard every appeal as faulty, choose the most reasonable

view, consider all sides of an issue, and not make hasty conclusions.

Dimensions of Critical Thought

Paul, Binker, Jensen, and Kreklau provided 35 dimensions of critical thought to foster students' thinking, and "encourage them to become not only skilled but fairminded as well" (1990, p. 62a). These dimensions are grouped into three categories: affective strategies, cognitive strategies (macro-abilities), and micro skills.

Affective Strategies. Critical thinkers need to be curious about the environment, and become sensitive to the social situation that they find themselves in. Thinking independently is that one should use his/her own thinking to decide what to do and who to believe. Developing insight into egocentricity or sociocentricity is that one should remember that people usually put what they want first and believe what their friends believe. Exercising fairmindedness is that one should look at things from other people's point of view when he/she disagrees with someone else. Exploring thoughts underlying feelings and feelings underlying thoughts is that one should think about why when he/she gets angry or sad. Developing intellectual humility and suspending judgment is that one should always be willing to ask "How does he/she know

that?" Developing intellectual courage is that one should be courteous to speak up for what he/she thinks is right. Developing intellectual good faith or integrity is that one should be careful to practice what he/she preaches. Developing intellectual perseverance is that one should think for a long time to solve problems because it is not always easy. Developing confidence in reason is that one should think logically, look for evidence, and accept only good reasons for things.

Cognitive Strategies (Macro-abilities). It is important for critical thinkers to learn how to observe critically, and analyze and express precisely. Refining generalizations and avoiding oversimplifications is that one should make things simple, but not so simple that they are not true. Comparing analogous situations: transferring insights to new contexts is that one needs a "map" in case he/she gets lost in his/her life. Developing one's perspective: creating or exploring beliefs, arguments, or theories is that one should be ready to listen to what other people think and why. Clarifying issues, conclusions, or beliefs is that one should always ready to say to others "Could you explain that again?" Clarifying and analyzing the meanings of words or phrases is that one should accept that he/she does not always know the

meanings of words or phrases even though they sound familiar.

Developing criteria for evaluation: clarifying values and standards is that one needs a way to judge something as good or bad. Evaluating the credibility of sources of information is that one needs to question what he/she hears people say and want he/she sees on TV. Questioning deeply: raising and pursuing root or significant questions tells that one usually takes a long time to figure out some questions that sound easy but actually are not. Analyzing or evaluating arguments, interpretations, beliefs, or theories is that one should analyze or evaluate things critically when having different beliefs with others.

Generating or assessing solutions tells that sometimes there are different ways to get the same job done and it is interesting to try to solve problems. Analyzing or evaluating actions or policies is that one should evaluate actions that he/she does not agree with. Reading critically: clarifying or critiquing texts is that one should look for answers carefully. Listening critically: the art of silent dialogue is that one should ask his/herself whether he/she could repeat what the other person is saying when listening to someone.

Making interdisciplinary connections is that one should apply lots of ideas in different places. Practicing Socratic discussion: clarifying and questioning beliefs, theories, or perspectives is that one can learn a lot more if he/she asks a lot of questions. Reasoning dialogically: comparing perspectives, interpretations, or theories helps one to talk to other people when he/she is trying to learn. Reasoning dialectically: evaluating perspectives, interpretations, or theories helps one to talk to other people who think differently and know things he/she does not know.

Cognitive Strategies (Micro-skills). Micro-skills are the most elementary skills of critical thinking and most of them depend on critical observation as a basis for productive application. Comparing and contrasting ideals with actual practice is that one needs to fix things so that he/she means what he/she says and says what he/she means. Thinking precisely about thinking: using critical vocabulary tells that there are special words one can learn to help he/she talk about what goes on in his/her head.

Nothing significant similarities and differences means that one should always try to see how things are both different and alike. Examining or evaluating

assumptions is that one has to pay attention to what he/she believes without thinking in order to do a good job of thinking. Distinguishing relevant from irrelevant facts is that one must stick to the point and not get other things mixed in when he/she wants to figure things out.

Making plausible inferences, predictions, or interpretations tells that things often seem to be one way at the moment and then turn out to be different. Evaluating evidence and alleged facts is that one needs to find out evidence when he/she reads, writes, and talks. Recognizing contradictions is that one should decide what he/she really means and then sticks to it. Exploring implications and consequences tells that it is important to know that when things happen, other things happen because of them, otherwise one will not notice all the things he/she is making happen.

Using affective strategies, macro-abilities, and micro-skills, critical thinkers should be curious about the environment, be sensitive to the social situation, think independently, listen to what other people think, observe critically, express themselves precisely, and always evaluate assumptions, arguments, beliefs, and evidence. These dimensions of critical thought comprise

the key skills necessary to leading a rational, yet emotionally effective life.

Strategies for Teaching Critical Thinking

Experts in the teaching of critical thinking have introduced various strategies to help students develop effective critical thinking skills. Improving students' critical thinking abilities requires the participation and support of faculty in every discipline (Kurfiss, 1988).

Beyer (1991) claimed that in order to teach thinking skills most effectively, teachers must be able to do at least four things well. These are as follows:

1. Identify and describe the attributes of any thinking skill(s).
2. Design and teach lessons for teaching any thinking skill(s) in any subject matter of choice.
3. Design and develop assessments of student proficiency in any thinking skill(s).
4. Infuse, or integrate, the teaching of thinking skills with instruction in existing subject-matter units, classes, or courses.(p. 2)

According to Shaw and Cliatt, "questioning technique" is one method for teachers to promote students' critical thinking skills (quoted in Sadler, 1993, p. 359). Teachers

develop students' thinking skills by asking appropriate questions and providing learning activities that require students to think beyond the memorization level (Sadler, 1993).

Ornstein and Levine suggest one strategy for teaching critical thinking, which is having students "spend a considerable portion of their time thinking about thinking and about ways in which effective thinking is distinguished from ineffective thinking" (2000, p. 474). Students learn to think for themselves, to consider evidence, make distinctions, explore alternatives to their own viewpoints, and draw conclusions (Manlove, 1989).

Byrd and Lundeberg (1996) explained that getting students to make a connection between prior knowledge and course content is one way to promote critical thinking skills. This strategy would help students to broaden their knowledge base and apply what they have known to other courses.

Ruggiero proposed several strategies to improve critical thinking (1984). These are skills used by individuals, and presumably, they can be taught by teachers.

Knowing Yourself. "Knowing oneself is the key to wisdom" (Ruggiero, 1984, p. 113). Self-knowledge is

important because many obstacles to clear thinking are found not in the problems dealt with, but in the person him/herself. People should be aware of their own habits, attitudes, and abilities that affect critical thinking.

Being Observant. The way to be observant is to use all five senses to keep the minds from wandering aimlessly. "If there are gaps in our seeing and hearing, then there is less chance that the perceptions we base our judgements on will be complete and accurate" (Ruggiero, 1984, p. 118). Good detectives know that one small clue can mean the difference between an unsolved and a solved case.

Clarifying Issues. People often expand the scope of their analysis to make it larger than they can manage. However, by grouping all aspects together, people tend to ignore some important distinctions, and distort the relationships among ideas. A good thinker should select the particular aspect upon which he/she wishes to focus, and in doing so settle only for a precise notion rather than for a rough one.

Conducting Inquiry. "Inquiry is seeking answers to questions, investigating, and gathering evidence to help us draw conclusions" (Ruggiero, 1984, p. 131). In order to look for information, people should consult their own

observation and experience, read books, examine the background of an issue, and so on.

Interpreting Evidence. After obtaining evidence, people usually need to decide what it means and how significant it is. The quality of a judgement depends on interpretation. Usually people find several possible interpretations, if they examine the evidence carefully. The basis for deciding which one is the most reasonable interpretation is not how popular it is. "The most reasonable interpretation is the one that fits the evidence best" (Ruggiero, 1984, p. 141).

Analyzing Positions. When people conduct their inquiry into an issue, they usually identify one or two positions that deserve special attention. This may be an article or a newspaper editorial written by an advocate for the particular view. Understanding complex material is the way to help people to analyze positions. People should read carefully and to understand precisely both the implied and explicit messages.

Forming Judgments. "Judgements are conclusions arrived at through examination of evidence and careful reasoning" (Ruggiero, 1984, p. 148). However, judgements can be erroneous. People can form better judgements when they obtain, examine, and evaluate relevant information

more effectively, which means they should clarify issues, conduct inquiry, interpret evidence, and analyze positions.

Sternberg and Spear-Swerling (1991) applied one teaching strategy to enhance critical thinking. It is called "dialogical" or "thinking-based questions" (p. 39). This strategy involves much teacher-student and student-student interaction. Teachers ask questions designed to stimulate thinking and discussion, and give feedback that focuses on discussion.

The Relevance of Critical Thinking to Education

Several national surveys suggest that students need to improve critical thinking skills to deal with innovation and skillfully solve problems (Adams & Hamm, 1990). Siegel (1988) claims that educators should conceive of critical thinking as an "educational ideal" (p. 46). This is because critical thinking

> is highly relevant to the determination of what we should teach, how we should teach, how we should organize educational activities, what the points of many of those activities are, how we should treat students and others in the educational setting, and so on. Perhaps most importantly, it provides a conception of the sort of person we are trying,

> through our educational efforts, to create, and the sort of character to be fostered in such a person. Critical thinking provides an underlying rationale for educational activities, a criterion for evaluation those activities, and a guiding principle for the organization and conduct of those activities. (Siegel, 1988, p. 46)

The goal of critical thinking is to help students to analyze information independently and foster the following thinking skills: the ability to analyze arguments critically, knowledge of research methods, the ability to inquire about causes and effects, and development of skepticism about explanations and conclusions (McGovern, Furumoto, Halpern, Kimble, & McKeachie, 1991). Critical thinking should be integrated into all courses, so students are continually challenged to develop "inquiring attitude and a critical frame of mind" (Ornstein & Levine, 2000, p. 475). "Courses in critical thinking foster explicitness about reasoning by focusing students' attention on analytic processes and by providing experience in reasoning at a level appropriate to their abilities" (Kurfiss, 1988, p. 23). Critical thinking is an essential capacity in a democratic society. By improving students' critical thinking skills, they become critical

thinkers who are capable of assessing the effectiveness of their own work and their lives.

Graphic Organizers

Students' academic achievement has been found to improve with the use of graphic organizers. "A number of authorities have addressed the impact of graphic organizers on students reading comprehension and recall" (Merkley & Jefferies, 2000, p. 350). Tables, charts, and flow diagrams convey data and concepts so that "objects and scenes are easy to visualize, and processes are easy to follow, comparisons are easy to make, and trends and other relationships are easy to spot" (Harris & Cunningham, 1994, p. 519). Graphic organizers "are visual illustrations of verbal statements" (Jones, Pierce & Hunter, 1988/1989, p. 20). "Graphic organizers are spatial metaphors that indicate relationships among concepts in a node-link-node visual display" (Ritchie & Gimenez, 1995/1996, p. 221). "Graphic organizers are two-dimensional visual arrays showing relationships among concepts" (Monroe, 1998, p. 539). Graphic organizers "use two-dimensional space to communicate concept relations" (Katayama & Robinson, 2000, p. 119).

Graphic organizers are visual systems that present and organize information (Martin, 1998). Graphic organizers "are spatial displays of text information that can be provided to students as study aids that accompany text" (Robinson & Katayama, 1998, p. 17). Graphic organizers provide a visual representation of concepts and their relationships with an organized frame (Arrastia, 1999). Graphic organizers convert complex information collections into meaningful displays (McKenzie, 1997). They are powerful tools that allow teachers to see what students are thinking and how they are processing information (Kuehl, 2000).

Why Use Graphic Organizers?

Graphic organizers are important because they help learners to comprehend, synthesize, and summarize complex ideas in ways that surpass verbal statements. A good graphic organizer "can show at a glance the key parts of a whole and their relations, thereby allowing a holistic understanding that words alone cannot convey" (Jones, Pierce & Hunter, 1988/1989, p. 21). By constructing and analyzing a graphic organizer, students become actively involved in processing a text.

The use of graphic organizers enhances the understanding of information and accentuates information

manipulation and meaningful learning (Ritchie & Gimenez, 1995/1996). Using graphic organizers helps students critically analyze information. Graphic organizers can "facilitate higher level thinking" (Monroe, 1998). They "are designed to enable students to better understand the relationships among concepts presented in text" (Robinson & Katayama, 1998, p. 17). Graphic organizers facilitate learning of coordinate concept relations for longer texts. Many of the graphic organizers are referred to as maps because they can help students map out their ideas in a visual manner (Candler, 2002). Graphic organizers speed up communication because they help people organize and remember information. They can explain complex relationships among elements, and clarify concepts that cannot be communicated through words (Martin, 1998).

Graphic organizers are mentally stored in a spatial format that can be easily searched for information (Robinson & Katayama, 1998). The use of graphic organizers is an effective strategy to increase short-term and long-term information recall (Ritchie & Gimenez, 1995/1996). Students could locate information needed to answer factual and inferential questions faster if they searched graphic organizers rather than text or outlines (Katayama & Robinson, 2000).

Graphic organizers aid learning and thinking by helping teachers and students represent abstract information in more concrete form. They may be used before an instructional activity to activate students' prior knowledge, to encourage prediction, and to provide a conceptual framework for integrating new information. During instruction, they can help students reorganize and process information. After instruction, they can be used to summarize learning, provide a structure for review, encourage elaboration, and assess the degree of students' understanding (Arrastia, 1999).

Five Main Types of Graphic Organizers

Flow charts, pie charts, and family trees are the graphic representations that people are most familiar with. A lot of graphic organizers are associated with frames. Frames are sets of questions that are fundamental to understanding a given topic, and they are usually "the underlying organizational schema for prose text" (Jones, Pierce & Hunter, 1988/1989, p. 21).

Graphic organizers can be categorized into five main types: star/web, chart/matrix, tree/map, chain, and sketch; each of these is used for a different purpose (Kipperman & McKinstry, 2002).

Star/Web. The star/web is used to show examples, attributes, definitions, and to display the results of brainstorming. A web "begins with a central idea placed in a prominent place, with supporting ideas arranged around the central ideas, generally connected to the center with lines, such a structure provides the student with a graphic portrayal of ideas and their relationships to one another" (Forte & Schurr, 1996, p. 7).

Chart/Matrix. The chart/matrix is used to show attributes, comparing and contrasting, and evaluating. "A chart may be essential in keeping track of related ideas, hanging on to thoughts that need to be remembered, or scheduling and tracking time and activities" (Forte & Schurr, 1996, p. 7).

Tree/Map. The tree/map is used to show pedigrees, analysis, classifications, structures, attributes, examples, and brainstorming. The tree/map is characterized by hierarchical subsumption of ideas.

Chain. The chain is used to show processes, causes and effects, sequences, and chronology. This is useful when events in a story or explanation are linear.

Sketch. The sketch is used to show spatial relationships, physical structures, descriptions of

places, visual images, and concrete objects. This is more strictly visual than logical in nature.

Venn diagrams, compare/contrast matrices, fishbone maps, spider maps, network trees, KWLH, series of events chains, problem/solution outlines, continuum scales, and T-charts are examples of sophisticated graphic organizers.

Venn Diagram. A Venn diagram is used to describe and compare attributes and characteristics of things, people, places, events, ideas, and so on by placing individual characteristics in either the right or left section, and common characteristics within the overlapping section (Freeman, 2002). Venn diagrams are useful when comparing two thins and for use with younger children (see Figure 1).

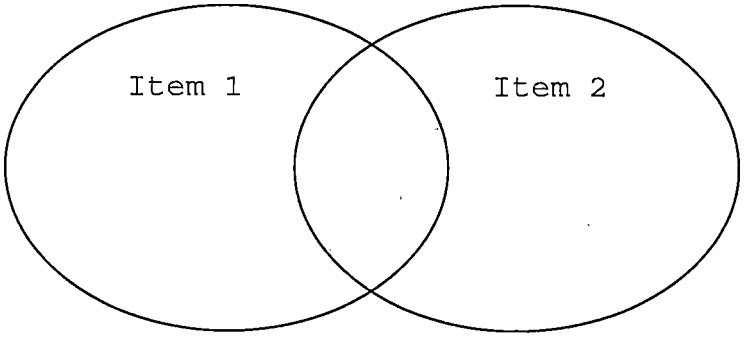


Figure 1. Venn Diagram (Kipperman & McKinstry, 2002, p. 4)

Compare/Contrast Matrix. A compare/contrast matrix is used to describe and compare attributes and characteristics of items (things, people, places, events,

ideas, etc.) and show similarities and differences between two things. Key frame questions: What things are being compared and how are they similar or different? (see Figure 2)

	Name 1	Name 2
Attribute 1		
Attribute 2		
Attribute 3		

Figure 2. Compare/Contrast Matrix (Kipperman & McKinstry, 2002, p. 5)

Fishbone Map. A fishbone map is used to show the interaction of a complex event or a complex phenomenon. Key frame questions: What are the factors that cause the result? How do they interrelate? Are the factors that cause the result the same as those that cause the result to persist? (see Figure 3)

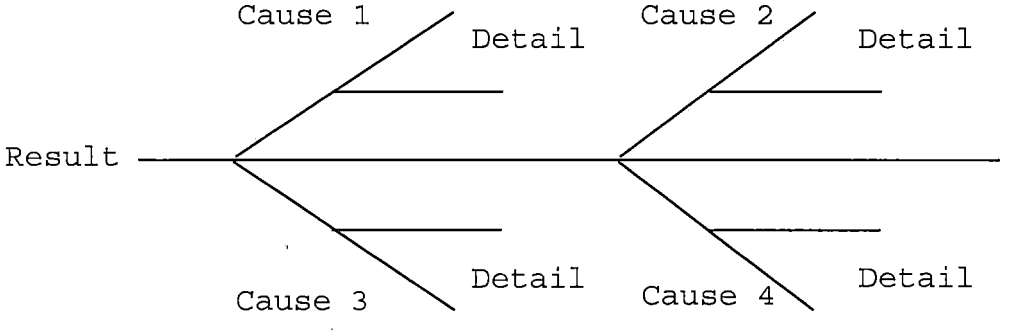


Figure 3. Fishbone Map (Kipperman & McKinstry, 2002, p. 12)

Spider Map. A spider map is used with a main theme or concept at its center and related themes branching from the core. It is used to describe a central idea (a thing, process, concept, or proposition with support). Key frame questions: What is the central idea? What are its attributes and functions? (see Figure 4)

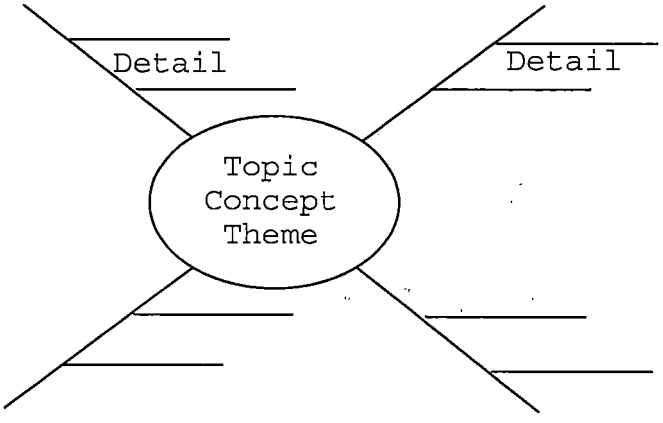


Figure 4. Spider Map (Kipperman & McKinstry, 2002, p. 12)

Network Tree. A network tree is used to show causal information, a hierarchy, or branching procedures. It shows a system of persons or things ranked one above another, left to right. Key frame questions: What is the superordinate category? What are the subordinate categories? How are they related? How many levels are there? (see Figure 5)

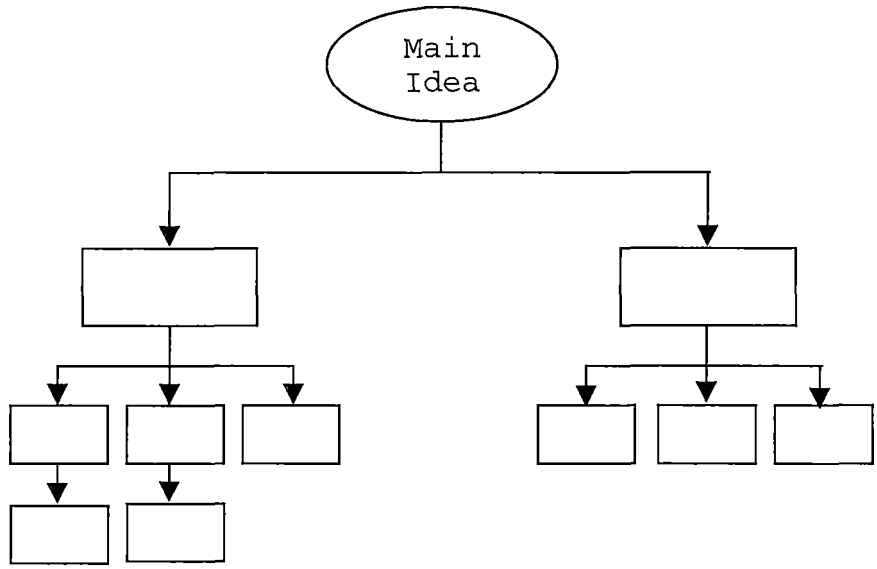


Figure 5. Network Tree (Kipperman & McKinstry, 2002, p. 7)

Know Want Learned How (KWLH). KWLH is used to help students activate prior knowledge. It is a group instruction activity that serves as a model for active thinking during reading. It encourages students to think about ideas and to ask questions while reading.

K - Recall what group knows about the subject

W - Determine what group wants to learn

L - Identify what group learned as they read

H - How we can learn more (see Figure 6)

What We Know	What We Want to Find Out	What We Learned	How Can We Learn More

Figure 6. Know Want Learned How (Kipperman & McKinstry, 2002, p. 10)

Series of Events Chain. Series of event chains are diagrams that represent a sequence of events, decisions, or actions. They can be used to sequence events in plots, historical eras, or laboratory instructions, and to describe the stages of something. Key frame questions: What is the object, procedure, or initiating event? What are the stages or steps? How do they lead to one another? What is the final outcome? (see Figure 7)

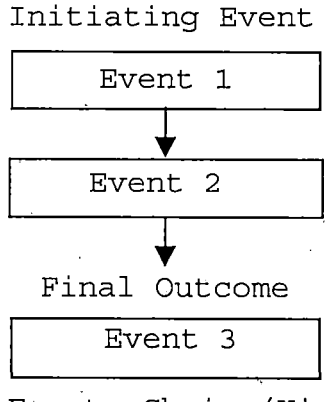


Figure 7. Series of Events Chain (Kipperman & McKinstry, 2002, p. 15)

Problem/Solution Outline. A problem/solution outline is used to represent a problem, attempted solution, and results. It shows the problem-solving process by defining the components of the problem and attempted solutions. The basic elements of different problems may vary, but the process is similar. Key frame questions: What was the problem? Who had the problem? Why was it a problem? What attempts were made to solve the problem and did these attempts succeed? (see Figure 8)

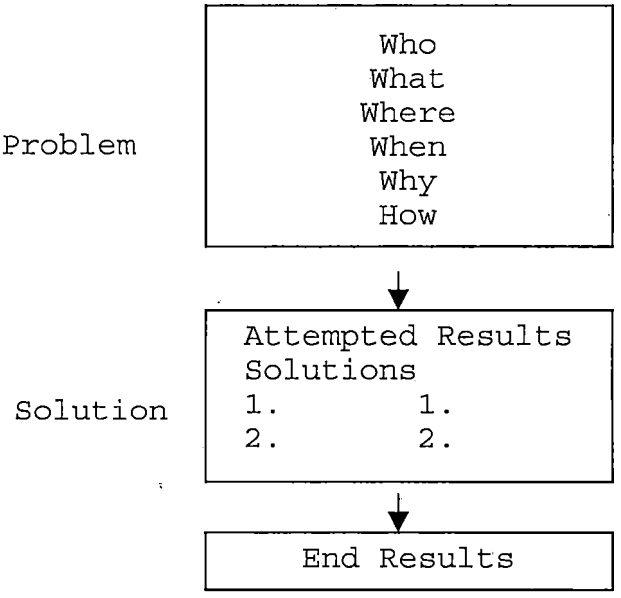


Figure 8. Problem/Solution Outline (Kipperman & McKinstry, 2002, p. 16)

Continuum Scale. Continuum scales are used for time lines showing historical events or ages, ratings scales, degrees of something, or shades of meaning. Key frame

questions: What is being scaled? What are the end points? (see Figure 9)

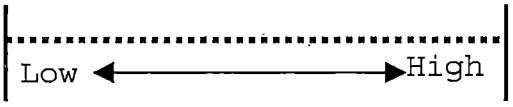


Figure 9. Continuum Scale (Kipperman & McKinstry, 2002, p. 14)

T-Chart. T-charts are used to analyze differences between two things (places, people, events, ideas, etc.) by placing individual characteristics in either the left or right sections (see Figure 10). It can also be used evaluatively by a good/bad differentiation.

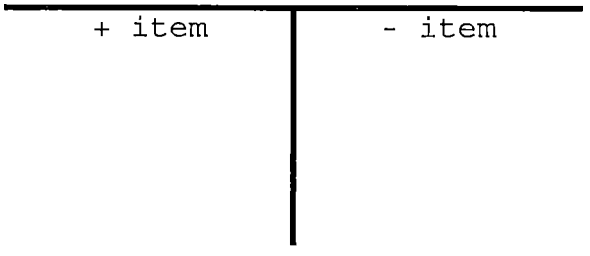


Figure 10. T-Chart (Kipperman & McKinstry, 2002, p. 4)

Constructing Graphic Organizers

An important rule in constructing graphic organizers is that "the structure of the graphic should reflect the structure of the text it represents" (Jones, Pierce & Hunter, 1988/1989, p. 21). The suggestions for creating graphic organizers usually include the following steps:

1. Analyze the learning task for words and concepts important for the student to understand.
2. Arrange them to illustrate the interrelationships and pattern(s) of organization.
3. Evaluate the clarity of relationships as well as the simplicity and effectiveness of the visual.
4. Substitute empty slots for certain words in order to promote students' active reading.

(Merkley & Jefferies, 2000, p. 351)

Implementing Graphic Organizers

Graphic organizers should serve to stimulate students' prior knowledge, encourage students' active reading, and assist students' anticipation of upcoming text. Teachers should take care that a graphic organizer is visually detailed enough to present an overview of the material, but not so detailed that reading the text is not required. When teachers present graphic organizers to students, they should take the following into consideration.

Verbalize Relationships among Concepts Expressed by the Visual. The teacher's verbal presentation of graphic organizer elements attempts to reinforce the relationships and links among concepts and the cause and effect pattern

of organization within the material. Teachers also remind students that graphic organizers are used as an overview of material that they will encounter during reading.

Provide Opportunity for Student Input. Teachers should encourage student comments about graphic organizer elements to see what students already knew, and to assess relationships that students understood. The teacher's questions should be open ended, avoiding "yes" or "no" responses and inviting hypotheses.

Connect New Information to Past Learning. The teacher's presentation of the graphic organizer elements is designed to guide students in recalling stored experiences and previously encountered information. Depending on students' responses, teachers can correct errors, and justify or revise students' thinking.

Make Reference to the Upcoming Text. Teachers use graphic organizers to raise students' expectations about meaning, and provide students with frequent reminders that the upcoming reading would explain certain concepts or provide additional details. Tasks for students to complete after reading should be clearly and carefully explained (Merkley & Jefferies, 2000).

Graphic organizers show the order and completeness of a student's thought process. In this they become

psychological tools that can express intelligence. Many graphic organizers use short words or phrases, so they are ideal for many types of learners, including English language learners (Kipperman & McKinstry, 2002).

In summary, this chapter provides an overview of five key words. Archetypes play an important role of human mind and influence people's emotions and thoughts. Using the concept of emotional intelligence can help students understand their own and others' feelings, motivate themselves, and develop social skills. Teachers should respect students' various strengths: their multiple intelligences. Stimulating students' critical thinking skills can help students to interpret, evaluate, and express things accurately. Graphic organizers are used to show students' thinking and learning process. Each of these should be applied in teaching, including English as a Foreign Language (EFL) teaching.

CHAPTER THREE

THEORETICAL FRAMEWORK

A Model of Using Technologies of the Self as a Tool to Explore and Stimulate Students' Intelligences

The model presented here is to introduce an effective way of using technologies of the self as tools to explore and stimulate students' intelligences. This model contains two major components: psyche and technologies of the self (see Figure 11). Based on the concepts reviewed in Chapter Two, intelligence, multiple intelligences, emotional intelligence (EQ), and archetypes are parts of psyche, the vast and only partially explored terrain of the self. Critical thinking and graphic organizers are examples of technologies of the self.

According to Jung, psyche includes the conscious, personal unconscious, and collective unconscious. The conscious is the command center of personal identity that controls one's acquisition of knowledge, language, and problem-solving (Miller, 2000). Intelligence is defined as the capacity for knowledge (Corsini, 1999) and ability to solve problems (Gardner, 1993). Therefore, intelligence is part of the conscious level. According to Howard Gardner's multiple intelligences theory, human beings possess

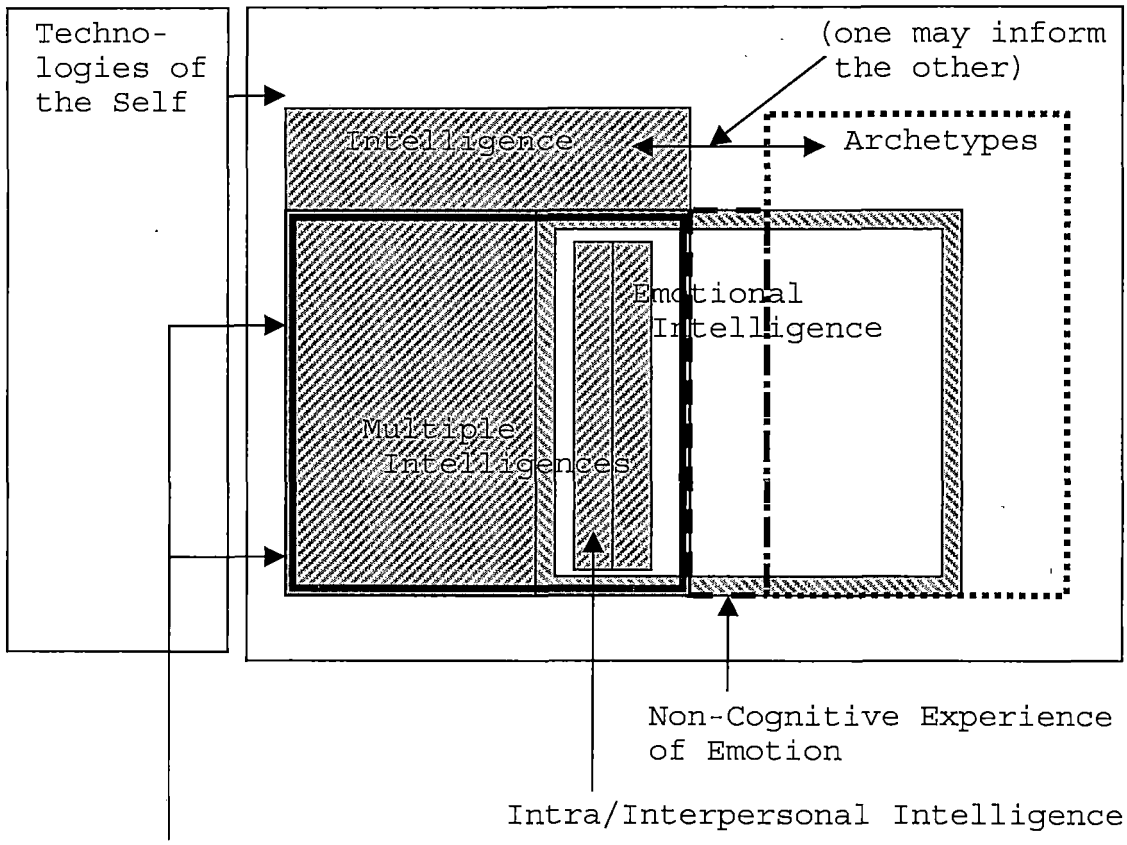


Figure 11. A Model of Using Technologies of the Self as a Tool to Explore and Stimulate Students' Intelligences

multiple intelligences and are smart in different ways. Gardner defined seven intelligences in 1983, and added the eighth in 1998 (McKenzie, 1999). However, there may be other intelligences that have not been categorized. The multiple intelligences are part of overall intelligence but not all of it.

Collective unconscious is the inherited foundation for the structure of personality and many ancient images are stored there (Longshore, 2000). The collective unconscious contains archetypes, which reflect the history of human beings. Understanding archetypes helps people recognize one another's thoughts and behaviors, develop self-awareness, self-motivation, and self-control, and improve interpersonal relationships. Emotional intelligence and archetypes share the same purpose: people use them to develop self-awareness and better relationships.

The five dimensions of emotional intelligence are self-awareness, self-control, self-motivation, empathy, and relationship skills (Shelton, 2000). Emotional intelligence is similar to, and may overlap, Howard Gardner's intrapersonal and interpersonal domains of intelligence. People with high EQ manage their own emotions well and understand the feelings of others, which

is the way to improve inter/intrapersonal relationships. Emotional intelligence and the multiple intelligences described in Gardner's theory may overlap, but there may be aspects of EI that are not within MI theory.

However, there is one section, non-cognitive experience of emotion, that does not belong to either archetypes or intelligence. Experiencing emotions is not considered archetypal behavior because it is not inherited and people do not share the same emotions. People may have different emotional reactions toward the social situation or environment in daily lives. Because it is neither cognitive nor conscious, it does not fall within the scope of intelligence.

To sum up, intelligence is part of the conscious level and the collective unconscious contains archetypes. The purpose of emotional intelligence and archetypes is to develop people's self-awareness and interpersonal relationships. Emotional intelligence is similar to intrapersonal and interpersonal domains of intelligence. Multiple intelligences are part of intelligence but not all of it.

Explanation of Technologies of the Self

Technologies of the self are tools that people use to understand themselves, solve problems, and express intelligences. Psychological tools such as critical thinking and graphic organizers are examples of technologies of the self. Critical thinking includes affective and macro/micro strategies (Paul, Binker, Jensen, & Kreklay, 1990). Critical thinkers are sensitive to social situations and relationships, and are curious about the environment. They know how to express their opinions and feelings accurately, and evaluate others' precisely, so they have better self-awareness and social skills. People with critical thinking skills can solve problems skillfully, which is the definition of intelligence. Therefore, critical thinkers have more clear thoughts and know how to explore and stimulate their own intelligence and that of others.

Using graphic organizers is one way to explore students' spatial intelligence. Graphic organizers usually use short words, so they are ideal for many learners. Graphic organizers can stimulate students' prior knowledge, and the use of graphic organizers enhances the understanding of information and acquiring of new

knowledge (Ritchie & Gimenez, 1995/1996). Students can use graphic organizers to express what they know and "facilitate higher level thinking" (Monroe, 1998).

In summary, the research presented in Chapter Two provides support for this model that presents the use of technologies of the self as tools to help students' to explore their intelligence and emotions. Using graphic organizers and developing critical thinking skills will result in better understanding of information. Students will become more aware of what they know and what they want to know.

CHAPTER FOUR

DESIGN OF THE PROJECT

The purpose of this curriculum design is to strengthen EFL students' multiple intelligences and increase their multicultural experience and insight. Improving students' crosscultural communication is one of the important tasks for EFL teaching. Based on the theoretical framework in the previous chapter, I have designed a lesson unit: Eastern and Western Legends. From reading ancient legends or fairy tales, one can find that the same stories are being played out in daily life. For example, a conceited and selfish person suffers the consequences of his/her own doing. People from different cultural backgrounds share the same archetypes and characteristics. Students can find and analyze their own personality traits from characters of legends. With self-understanding and self-awareness, students come to realize their own weaknesses and strengths. They respect the reality that not all students are smart in the same way. They know how to learn better and how to control their learning. They use their emotions to motivate themselves and others.

This unit design is divided into five lessons. The suggested time to implement each lesson is two hours. Each lesson has specific objectives and activities. Students can work individually in some activities, and work with partners in others. By doing group work, students learn how to manage their interpersonal relationships and increase their social skills. Students can use nonverbal responses or bodily movements to express their opinions. Linguistic skill is not the only ability used in this curriculum unit. Through the activities, students can explore their feelings and emotions to develop their intrapersonal and emotional intelligence. Some activities direct students to analyze written texts, solve problems, and improve logical, creative, and critical thinking. Others provide musical and outdoor experiences. For some students, visual materials make their learning more effective.

Each lesson plan contains a list of topics, grade level, objectives, materials, warm up, task chains, and final assessment. The major components of the teaching unit are focus sheets, work sheets, and assessment sheets.

Focus sheets are designed to meet the lesson objectives. Each lesson has one focus sheet containing a reading text. Lesson One features a Greek legend: Phaeton

and the Chariot of the Sun. Lesson Two presents a Mexican legend: The Two Mountains. Lesson Three is also based on a Greek legend: Hercules. Lesson Four features a Chinese legend: The Stone Ape. Lesson Five is built on a Chinese legend: Magic Wishes That Fly Up to the Sky. Various activities follow each reading. The instructor uses focus sheets to present information to students.

Work sheets are used to improve and stimulate students' different intelligences. Using work sheets, students can read, write, and discuss together. Work sheets are flexible, so that students can work alone or cooperate with others. Furthermore, graphic organizers and writing activities are used to improve students' analysis and interpretive abilities. Students will practice the writing process, leading to higher writing competence.

Assessment sheets are used to evaluate the lesson. Using assessment sheets, teachers monitor each student's learning process, in order to provide help when needed. Students also can use assessment sheets to self-evaluate their understanding and participation in the lesson. This is one method of encouraging active and positive learning. On assessment sheets, students are free to express their opinions or feelings. Teachers provide comment and suggestions to students and also receive feedback from

students. Based on the assessment, teachers can decide whether or not to adjust their teaching.

There is no one teaching strategy suitable for all students. This curriculum project is designed to fulfill students' needs and provide opportunities for teacher-student and student-student interactions. Students will have the chance to express what they know, learn what they want to know, and learn more effectively.

Lesson	Task Chain	Key Word Components
1	1 & 2	Archetypes Emotional intelligence Multiple intelligences
	3	Multiple intelligences Graphic organizers Critical thinking
2	1 & 2	Archetypes Emotional intelligence Multiple intelligences
	3	Emotional intelligence Graphic organizers
3	1, 2 & 3	Archetypes Emotional intelligence Multiple intelligences Critical thinking
4	1	Archetypes Emotional intelligence Multiple intelligences
	2	Emotional intelligence Multiple intelligences Critical thinking Graphic organizers
	3	Emotional intelligence Multiple intelligences
5	1	Archetypes Emotional intelligence Multiple intelligences
	2	Emotional intelligence Multiple intelligences Archetypes Graphic organizers
	3	Multiple intelligences

Figure 12. Content of the Lesson Plans

CHAPTER FIVE

ASSESSMENT

The primary purpose of assessment is to improve student learning. Assessment provides useful information about whether students have reached important learning goals and about the progress of each student. Assessment should certify student learning and provide information for instructional improvement. Assessment should ensure that all students receive fair treatment in order not to limit their present and future opportunities. Assessment should be focused on what students know and are able to know, what they need to learn, and what will be done to facilitate improvement. Assessment reveals not only students' weaknesses but also their strengths.

Assessment is designed to create autonomous students who are self-analyzing, self-evaluating, self-referencing, self-renewing, and self-motivating. In Taiwan, the major format of assessment is traditional standardized tests. Students do not have chances to evaluate themselves. Achieving higher grades is the primary goal for students, teachers, and school districts. Assessment is designed as a tool to evaluate students' academic achievement, but not their learning process. Assessment is equal to written

tests, so it cannot be used to evaluate students' other skills. However, students have more than one kind of intelligence. A wider range of their abilities should be motivated and developed.

The assessment designed for this curriculum employs practices and methods that are consistent with instructional and learning goals. The instructor assesses student learning through such methods as structured observations, tasks, tests, performances, and exhibitions. This curriculum unit incorporates multiple methods to assess student progress and provides alternative ways for students to express knowledge and understanding. Students are offered opportunities to assess themselves. Once students become more familiar with their own learning processes, they can enhance their control and management of learning. They will know what they need to improve and what they are good at. They will become more responsible for their learning and become independent and active learners.

Various types of assessment are designed in this curriculum: teacher assessment, group assessment, and student self-assessment. Teachers can evaluate student learning, and students can work together to assess their learning by doing work sheets or assessment sheets.

Students can also self-evaluate their work and adjust their learning strategies. Students are informed about instruction and about the evaluation standards of assessment. Students have opportunities to fully express what they know and what they can do.

In one lesson, the instructor asks questions to check students' understanding of the content and their participation in the activity. Two stories are contrasted, an exercise used to improve students' comparison skills. Students create a new story to motivate their creativity and critical thinking. Analyzing characters' and their own personality traits and emotions helps students to achieve self-understanding and self-awareness. Students can describe and express their opinions, thoughts, feelings, and emotions. Group performance is used so that students can share ideas with others, speak and listen politely, help each other, and improve interpersonal relationships. Self-assessment helps students evaluate their contribution to the activity. Story retelling is used to check students' understanding of content and language. In the kite-making lesson, students can apply their prior knowledge to present learning. Students have a chance to consider what they want to improve in their life by making a kite symbol. Students are clear about their learning

process and life, so there will be fewer obstacles and conflicts.

This multi-method assessment meets the objectives and goals of the curriculum. It is not only a tool to decide students' success or failure, but is a meaningful and practical way to improve teachers' teaching and students' learning processes.

In summary, this project provides an overview of five concepts: archetypes, emotional intelligence, multiple intelligences, critical thinking, and graphic organizers. Based on the five concepts, a theoretical framework, using technologies of the self as a tool to explore and stimulate students' intelligences, is presented. The purpose of this curriculum project is to provide an approach to enrich the process of teachers' teaching and students' learning. Students are encouraged to become self-aware and learn actively and creatively. The five key words are applied in a curriculum unit: Eastern and Western Legends, which is interesting and different from traditional texts. Assessments of this curriculum unit employ methods that are consistent with instructional goals. Students have opportunities to fully express what they know. The most important is that they learn how to

manage their emotions, interpersonal relationships, and learning process.

APPENDIX

EASTERN AND WESTERN LEGENDS

Lesson One

Phaeton and the Chariot of the Sun

Level: Elementary EFL: Ages 10-12

Objectives:
1. Reading the legend "How Deserts Were Created"
2. Understanding the reasons for desert formation
3. Identifying reality and fantasy

Materials: Focus Sheets 1-1 & 1-3; Work Sheets 1-2, 1-4, & 1-5; Assessment Sheets 1-6 & 1-7

Warm Up: The instructor asks students to talk over the following stories and then report to the class.

Task Chain 1: Reading the Legend "How Deserts Were Created"
1. Each student is given the story of Phaeton and the Chariot of the Sun (Focus Sheet 1-1). Students choose to read the story by themselves or with partners.
2. Using Work Sheet 1-2, students answer questions from the legend of Phaeton and the Chariot of the Sun.
3. Students self-assess their answers for accuracy, correcting if necessary.
4. The instructor discusses answers with students.

Task Chain 2: Understanding the Reasons for Desert Formation
1. Students are given Focus Sheet 1-3. After reading, students write summary on Work Sheet 1-4.
2. Students work in groups to compare their answers.

Task Chain 3: Identifying Reality and Fantasy
1. The instructor explains the concept of reality and fantasy. Students use Focus Sheets 1-1 and 1-3 to create sentences with the concept of reality and fantasy on Work Sheet 1-5.
2. Each student writes answers with appropriate capitalization, punctuation,

and vocabulary. Each student shares his/her sentences with the class.

Final Assessment: Understanding of Desert Formation

1. Using Assessment Sheet 1-6, students assess their understanding of this lesson by comparing Focus Sheets 1-1 and 1-3.
2. Using Assessment Sheet 1-7, the instructor asks content questions to evaluate students.

Focus Sheet 1-1

Phaeton and the Chariot of the Sun

Phaeton was a young boy who lived with his mother. His mother told him that his father was the sun god, Apollo, who lived in a golden palace far away. Every day Apollo pulled the sun across the sky behind his chariot.

Phaeton decided to visit his father. He walked and walked until he saw the huge golden palace. The palace was at the top of a mountain, high up in the clouds.

Inside the palace, Phaeton found Apollo. Phaeton told his father that more than anything else in the world he wanted to drive the chariot of the sun across the sky.

Apollo finally agreed to let Phaeton drive his chariot. But Phaeton was not strong enough to control the wild horses.

The horses came down too far in the sky, pulling the sun behind them. The earth was badly burned in some places. Phaeton and the wild horses of the sun god had made the first deserts on earth. (Green, 1997, p. 290)

Work Sheet 1-2

Question Sheet for
Phaeton and the Chariot
of the Sun

1. Who was the sun god?

_____

2. Where did Apollo live?

_____

3. Did Apollo let Phaeton drive the chariot of the sun across the sky?

_____

4. Was Phaeton able to do the job? Why?

_____

5. How were deserts created?

_____

6. Can you give more possible explanations for the existence of deserts?

_____

_____

_____

Focus Sheet 1-3

Formation of Deserts

The three reasons for desert formation are:

(1) Equatorial wind belts: Warm air is constantly rising around the equator, and this creates winds that blow north and south away from the equator. As air rises it cools and forms clouds, which lose water as rain. When the air descends to earth around the tropics, it is too dry for clouds to form. Without clouds there is no rain, hence deserts form.

(2) Rain shadows: These form in the lee of high mountain ranges, where any rain has already fallen on the mountain tops. These are in the middle of large continental masses such as the USA and Asia.

(3) Cold currents: On the Southwest coasts of Africa and South America, cold currents from the ocean bed cool the air immediately above, so that it falls as rain before reaching the land. The only moisture reaching these coasts is in the form of sea fogs. (Wain, 2002)

Work Sheet 1-4

A Summary for
Formation of Deserts

Write a short paragraph to explain the formation of deserts.

Work Sheet 1-5

Reality Versus Fantasy

Based on Focus Sheets 1-1 and 1-3, create sentences that demonstrate the concepts of reality and fantasy.

Example:

Reality: Yesterday I saw a picture of Apollo flying over a desert.

Fantasy: Yesterday I saw Apollo flying over a desert.

1. reality _____

   fantasy _____

2. reality _____

   fantasy _____

3. reality _____

   fantasy _____

4. reality _____

   fantasy _____

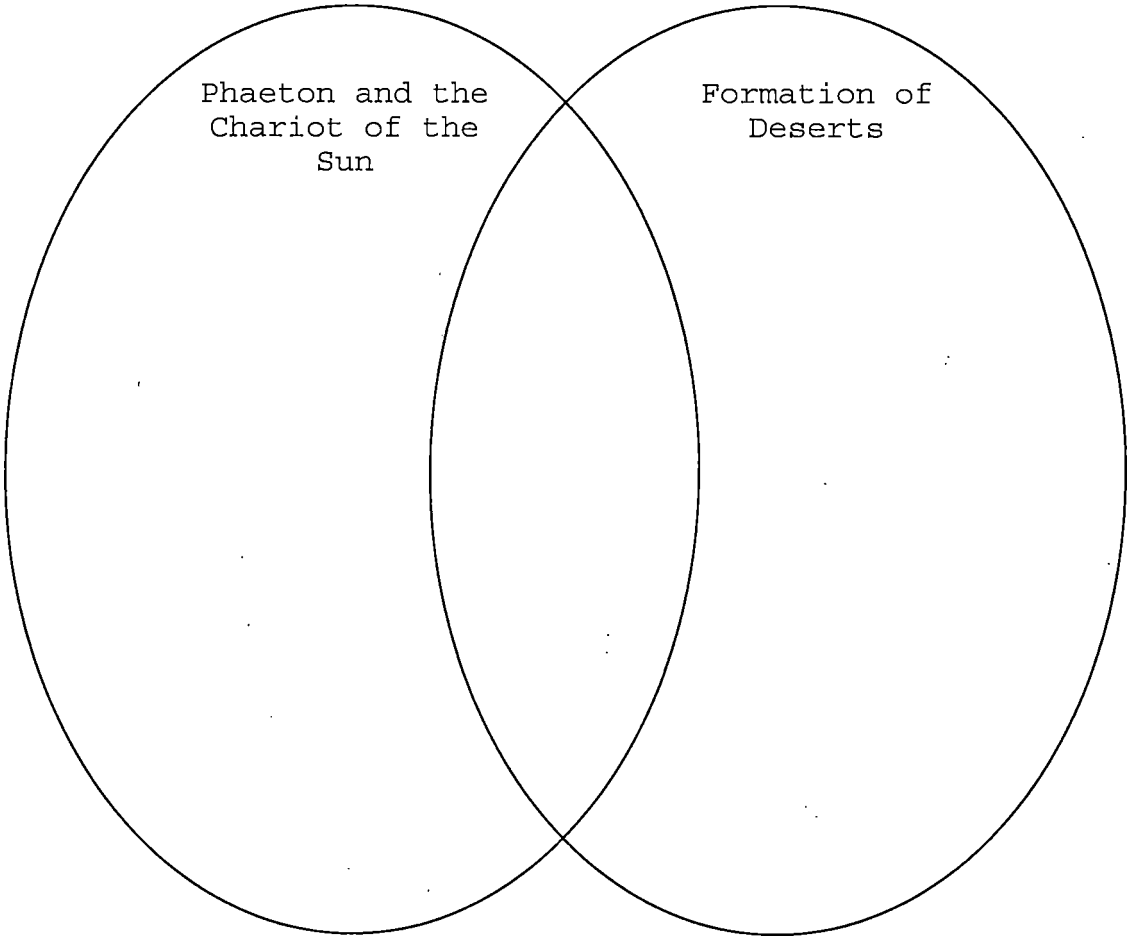
5. reality _____

   fantasy _____

Assessment Sheet 1-6

Comparison

Compare Focus Sheets 1-1 and 1-3 about how deserts were created. Are there any differences and similarities?



Assessment Sheet 1-7

Understanding
Desert Formation

The instructor asks students content questions from Focus Sheets 1-1 and 1-3. Mark with an X under the correct heading.

Name	Know the Answer	Does Not Know the Answer	Uses Correct English

Lesson Two

The Two Mountains

Level: Elementary EFL: Ages 10-12

Objectives: 1. Understanding the legend "The Two Mountains"
2. Analyzing and distinguishing comments from characters
3. Analyzing characters

Materials: Focus Sheet 2-1; Work Sheets 2-2, 2-3, 2-4, & 2-5; Assessment Sheets 2-6 & 2-7

Warm Up: The instructor introduces where Mexico is and asks students if they know how volcanoes are named.

Task Chain 1: Understanding the Legend "The Two Mountains"

1. Students are given Focus Sheet 2-1 (the story "The Two Mountains". Students choose to read the story by themselves or with partners.
2. Students are divided to five groups and choose ten vocabulary words from the story. Students write definitions on Work Sheet 2-2.
3. Students in each group explain the vocabulary words to the class.
4. Students work with partners. Students discuss comprehension questions and write answers on Work Sheet 2-3. The instructor asks each group to give answers.

Task Chain 2: Analyzing and Distinguishing Comments from Characters

1. Students are given Work Sheet 2-4. Students choose the right character for each saying.
2. The instructor asks students for answers. After a student tells the answer, others give non-verbal responses to express their opinions.
   Thumbs-up means they agree with the answer.
   Thumbs-down means they disagree with the answer.

Task Chain 3: Analyzing Characters

1. The instructor explains what personality traits and emotions are. Students analyze the three main characters of the story "The Two Mountains." Students write their analysis on Work Sheet 2-5.
2. The instructor collects answers from each student and summarizes each character's personality traits.

Final Assessment: Character Description

1. Using Assessment Sheet 2-6, the instructor asks students to choose one favorite character from the story and explain why they choose the person. Students are required to develop an idea web of the character that they choose.
2. Using Assessment Sheet 2-7, students self-assess their work on this lesson.

Focus Sheet 2-1

The Two Mountains

Two snow-capped volcanoes can be seen from Mexico City. Sometimes smoke comes from the taller one. They are named Popocateptl and Ixtaccihuatl, but the Indians call them "The Mountain of Fire" and "The White Princess." This is the legend about these two mountains.

Long, long age, the Aztecs lived in the Valley of Mexico. Their leader, the emperor, was growing old. He had only one child, a beautiful princess named Lxtaccihuatl. The enemies of the Aztecs knew that the emperor was growing too old to fight. They decided to take over the Aztecs' land.

The Aztec warriors were strong and brave. The emperor chose one of them to marry his daughter and become the new leader. He called the warriors to the palace and told them that Popocateptl would be the next emperor. Princess Lxtaccihuatl was happy. She loved Popocateptl and wanted to marry him.

One warrior was angry and jealous. He thought he should be the new leader. When Popocateptl led the army out of the city to protect the Aztecs' land, Ixtaccihuatl was worried. She was afraid that she might never see him again.

This was lasted a long time, but the Aztecs won. When the army began to return to the city, the jealous warrior ran ahead of the others and went to see the emperor. He lied, "Popocateptl was killed in battle. I was the leader of our army. I won the war for the Aztecs."

When the emperor heard this, he asked the warrior to become the new leader and marry the princess. Ixtaccihuatl was very sad. She did not want to live without Popocateptl. She did not want to marry the jealous warrior, but she could not disobey her father.

At the wedding feast, many people were enjoying the music, dancing, and delicious food. Suddenly Ixtaccihuatl fell to the floor, dead of a broken heart.

The people heard the army returning. Popocateptl rushed to tell the emperor of the victory. "The land is at peace. Now I can marry the princess." The emperor bowed his head and cried. Then Popocateptl saw Istaccihuatl's body.

Popocateptl did not want to go on living without Ixtaccihuatl. He carried her body to the mountains and placed it on a pyramid he built. Then he built another pyramid so that he could stand near Ixtaccihuatl and hold a torch for her. Snow soon covered the princess and the warrior, but the torch has never stopped burning. (Green, 1997, p. 306)

Work Sheet 2-2

Vocabulary Sheet

Vocabulary Word	Definition (Guess)	Correct Definition

Work Sheet 2-3

Comprehension Questions

Answer the following questions.

1. What comes from the top of the taller mountain?

_____

2. Where did the Aztecs live?

_____

3. Why did the emperor choose a new leader?

_____

4. How do you think Popocateptl felt about being chosen to marry the princess? Why?

_____

5. Why was the princess worried?

_____

6. What did the jealous warrior tell the emperor?

_____

7. How long do you think the war lasted?

_____

8. Why do you think the jealous warrior lied to the emperor?

_____

Work Sheet 2-4

Comments from Characters

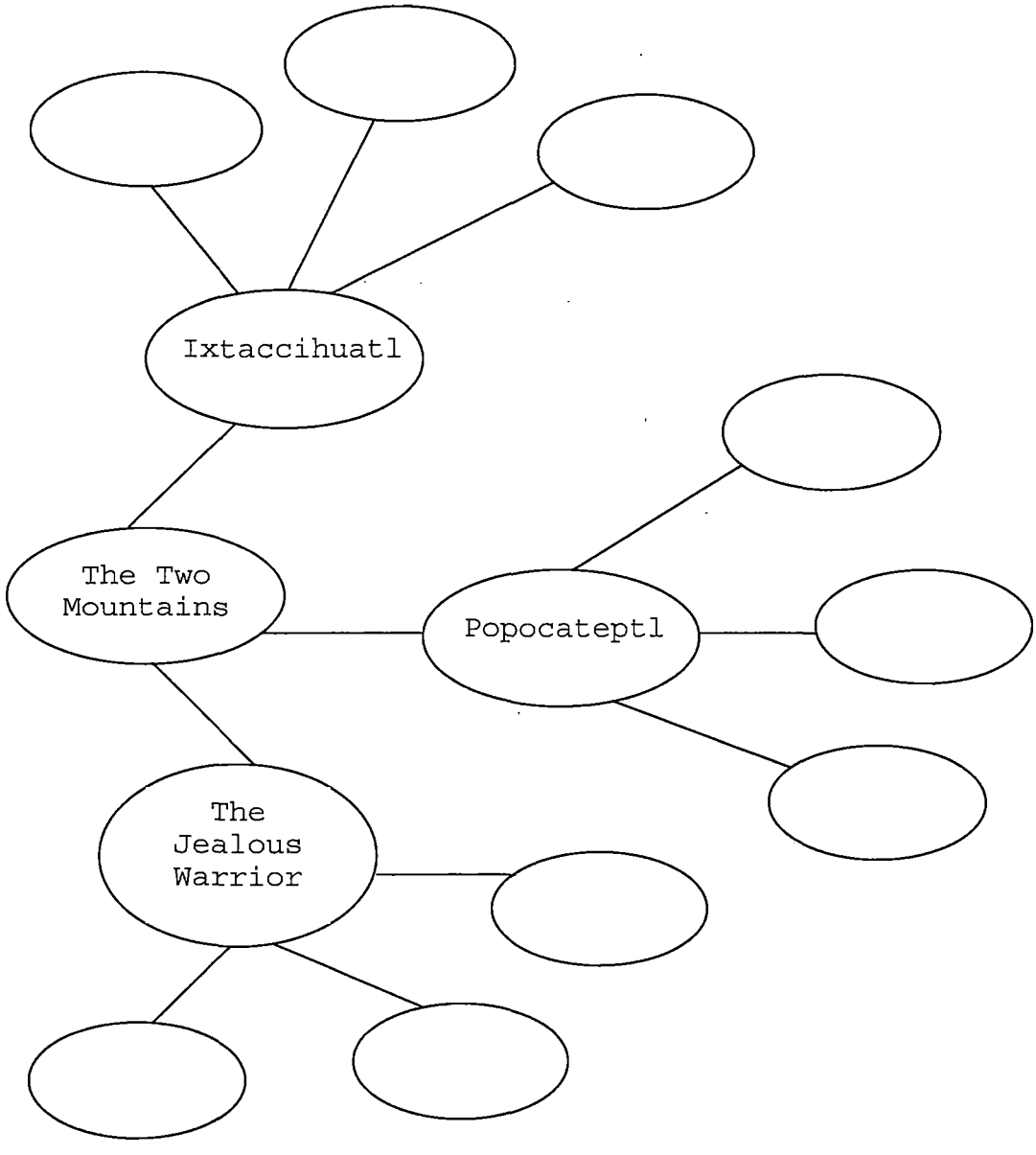
Fill in each blank with the name of the person you believe is talking. Choose from the 3 characters: Ixtaccihuatl, Popocateptl, and the jealous warrior.

1. "I will trick the emperor," said _____.
2. "I am very worried about Popocateptl," said _____.
3. "I do not want to live without Ixtaccihuatl!" cried _____.
4. "I do not want to live without Popocateptl!" said _____.
5. "I should have been chosen to be the new leader!" protested _____.

Work Sheet 2-5

Analyzing Characters

Please give each character three personality traits or emotions.



Assessment Sheet 2-6

Character Description

Please choose one character from the story "The Two Mountains" and explain why you chose this person. Make an idea web to describe this person's personality traits and emotions.

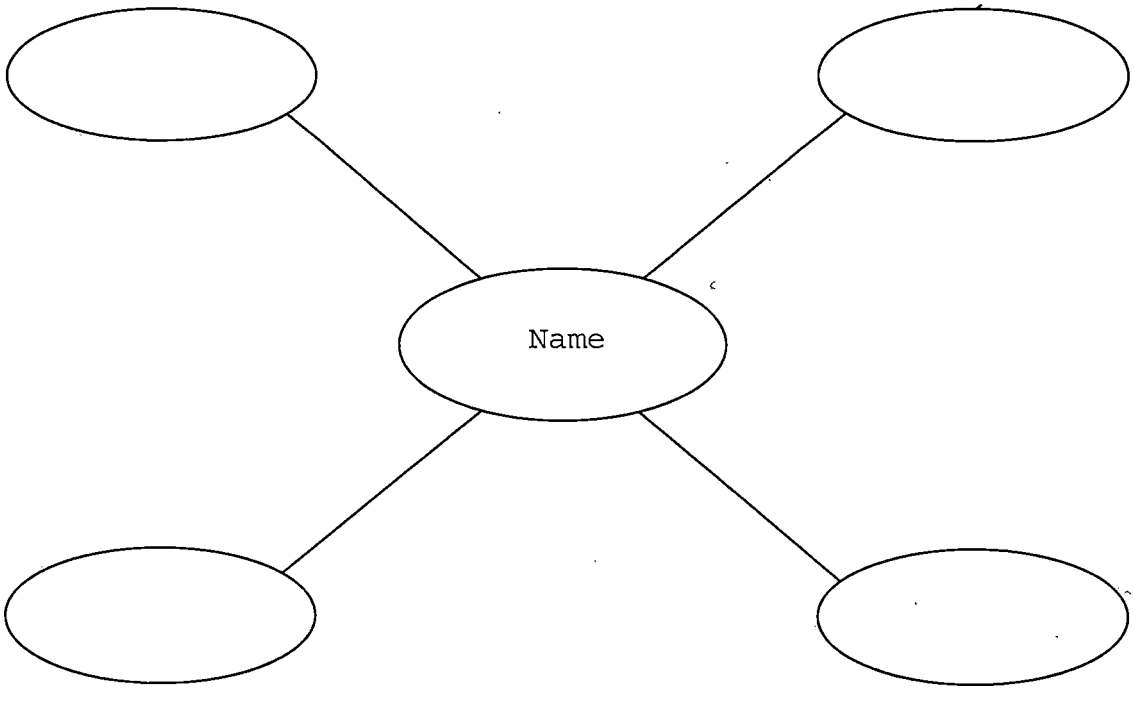
Character's name: _____

Why you chose this person: _____

_____

_____

Idea web for this character:



Assessment Sheet 2-7

Self-Assessment

Did I ...				
Help others?	e	g	s	w
Share my ideas?	e	g	s	w
Speak in friendly manner?	e	g	s	w
Listen politely?	e	g	s	w
Ask questions of others?	e	g	s	w
Encourage, compliment, praise?	e	g	s	w
Stay on task?	e	g	s	w

e = excellent g = good s = satisfactory w = working on

Lesson Three

Hercules

Level: Elementary EFL: Ages 10-12

Objectives: 1. Creating an ending for the legend "Hercules"
2. Developing thinking skills
3. Understanding emotions

Materials: Focus Sheets 3-1 & 3-3; Work Sheets 3-2, 3-4, & 3-5; Assessment Sheet 3-6

Warm Up: The instructor asks students if anyone knows any Greek legends and who is Hercules. In pairs, students tell the Greek legends that they know and guess Hercules' personality traits.

Task Chain 1: Creating an Ending for the Legend "Hercules"
1. Students are given Focus Sheet 3-1 (the story of Hercules). Students choose to read the story by themselves or with partners.
2. Using Work Sheet 3-2, students are divided into five groups and create their own ending for "Hercules."
3. Each group summarizes and retells their story to the class.
4. Students are given Focus Sheet 3-3, the original ending of "Hercules."

Task Chain 2: Developing Thinking Skills
1. Students are given Work Sheet 3-4. Students answer each question and the instructor asks volunteers to share their answers with the class.

Task Chain 3: Understanding Emotions
1. Using Work Sheet 3-5, the instructor explains definitions of each emotion and feeling.
2. Students work in pairs and share their answers with their partner.

Final Assessment: Comparing Two Stories and Describing Yourself
1. Using Assessment Sheet 3-6, the instructor asks students to compare the differences

between the story they made and the original story.

2. Students use the words that they have learned to describe their feelings and emotions.

Focus Sheet 3-1

Hercules - Part I

When Hercules was a baby he lived in the palace of Amphitryon, king of Thebes. Although Amphitryon loved the baby dearly and provided many women to wait on him and care for him, Hercules was not his own child. He was the son of the great god Jupiter, king of the heavens.

King Amphitryon was proud of him because he was much larger and stronger than other babies, but Juno, who was the wife of Jupiter and queen of all the goddesses, hated this little son of Jupiter.

One day the goddess sent two great serpents to destroy Hercules as he lay in his cradle, but Hercules wakened as the serpents rustled over his linen coverlet, and reaching out his strong little hands, he grasped them round the neck and held them tight until they were strangled. His nurses, hearing him crow, knew his nap was over, so they came in to take him up. There lay the two serpents dead in his cradle!

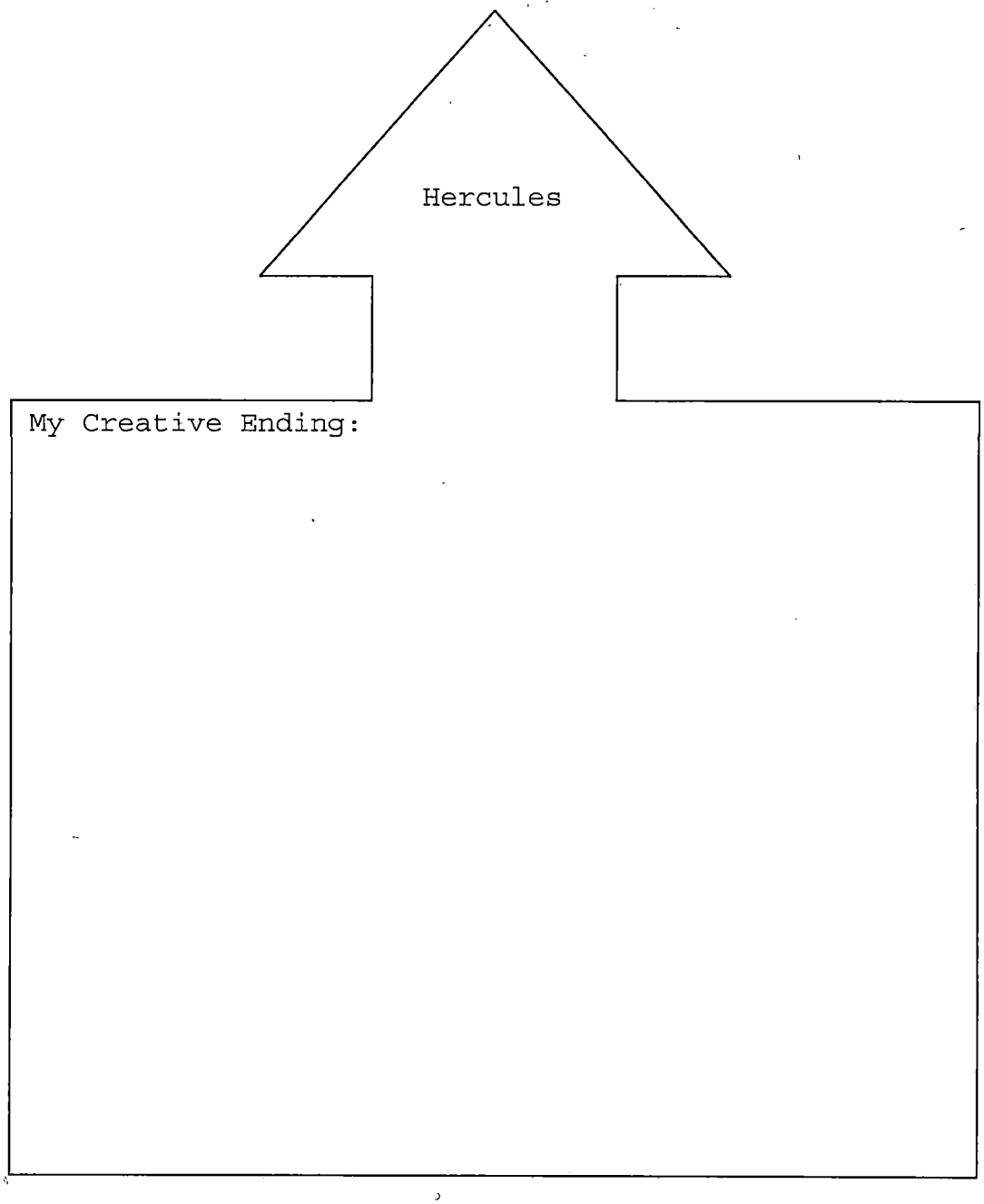
This was such a wonderful thing for a baby to do, that King Amphitryon boasted of it all over his kingdom. As Hercules grew older, the king searched far and wide until he found the wisest teachers to train him in all the ways in which a prince should be trained.

In one way his nurses and teachers had a hard time with Hercules. He had so terrible a temper that when he became angry everyone ran out of his reach. King Amphitryon tried in many ways to teach Hercules to control his temper, but it was no use. One day his music teacher, whose name was Linus, reproved him for carelessness and tried to punish him. Hercules at once raised his lute and struck Linus on the head. The blow was such a terrible one that Linus died. (Price, 1993, p. 19-21)

Work Sheet 3-2

Creative Writing

Create your own ending for "Hercules."



Focus Sheet 3-3

Hercules - Part II

After that Hercules was in disgrace with King Amphitruon, and the king sent him away to live among his herdsmen and the cattle.

In the mountains where the king's herds were kept, there lived a lion which kept carrying off the fattest cows. Often, too, it had killed the herdsman. Soon after Hercules came to live in the mountains, he killed this lion, and in other ways made himself so useful to the herdsmen that they grew to love him, and held him in great respect.

Hercules continued to grow larger and stronger, and at last he returned to Thebes and fought for the king against his enemies. He won many victories for King Amphitryon, who forgave him for killing Linus.

In spite of his temper Hercules was kind. Hercules was carried to Mount Olympus in Jupiter's own chariot, and became one of the Immortals. (Price, 1993, p. 21)

Work Sheet 3-4

Developing Thinking Skills

Answer each question in two or three sentences.

1. What have you learned from the story?

2. If you were Hercules, how would you control your temper?

3. If you were Hercules' father, how would you teach your son?

4. What do you think about the ending of the story?

Work Sheet 3-5

Understanding Emotions

The following are words that describe a person's emotions and feelings. Complete each sentence with your own words.

Emotions: angry, depressed, excited, frustrated, happy, worried, relaxed, shy, tense, lonely, sad, afraid

When I am angry, I ...

_____

When I am depressed, I ...

_____

When I am excited, I ...

_____

When I am happy, I ...

_____

When I am sad, I ...

_____

When I am afraid, I ...

_____

When I feel lonely, I ...

_____

When I feel frustrated, I ...

_____

Assessment Sheet 3-6

Comparing Two Stories and Describing Yourself

1. What are the differences between the story you made and the original story?

2. Write a short paragraph about yourself, using the words you have learned to describe your feelings and emotions.

Lesson Four

The Stone Ape

Level: Elementary EFL: Ages 10-12

Objectives: 1. Making a list of new words
2. Identifying elements of the story
3. Writing a song based on the story

Materials: Focus Sheets 4-1 & 4-3; Work Sheets 4-2, 4-4, & 4-5; Assessment Sheet 4-6

Warm Up: The instructor asks if anyone knows the famous Chinese legend "The Stone Ape." Students guess what the story is about.

Task Chain 1: Making a List of New Words

1. Students are given Focus Sheet 4-1 (the story of the stone ape). Students choose to read the story by themselves or with partners.
2. Using Work Sheet 4-2, students work in pairs and choose vocabulary words from the story. Students give definitions of the words and using them to make sentences.
3. Each pair shares their vocabulary with the class and the instructor corrects any misunderstandings.

Task Chain 2: Identifying Elements of the Story

1. Students are given Focus Sheet 4-3. The instructor explains elements of a story.
2. Students write story elements of "The Stone Ape" on Work Sheet 4-4. Each student shares his/her answers with others and corrects wrong guesses.

Task Chain 3: Writing a Song Based on the Story

1. Students are divided into groups of five and write a song based on the story on Work Sheet 4-5.
2. The instructor encourages students to write the song creatively. Students are also encouraged to create the lyrics with rhymes.
3. Each group can rehearse singing.

4. Each group sings and shares the song with other students.

Final Assessment: Retelling the Story and Self-Assessing the Song Writing

1. Using Assessment Sheet 4-6, the instructor asks students to complete the story elements assessment. Students are divided into group of five and retell the story, which includes its setting, characters, problem, action, resolution, and theme.
2. Students self-assess their contributions to the song writing activity.

Focus Sheet 4-1

The Stone Ape

Many years ago, in a time long past, there was a beautiful island which lay right in the middle of the Great Eastern Sea. The name of the island was Mountain of Flowers and Fruits, and on it was a large rock. Since the beginning of the world, this rock had absorbed all the secret powers of heaven and earth and sun and moon, so by the time this story begins, it was full of magic.

One day, the rock split open, and out came a stone egg. After a while, the egg hatched, and out of it jumped a little stone ape. He bowed to the four corners of the earth—east, south, west, and north—and then ran off bursting with energy and joy. The stone ape grew up willful and strong. When he played with the other apes of the island, he was always in charge of the games. One day, he led the whole tribe to swim and bathe in a clear pool. As they approached the pool, they heard a great roaring sound. They looked up and saw that the sound came from a waterfall that fell into the pool from a cliff high above.

"Look at the waterfall!" cried one of the apes. "Whoever can pass through it shall be our king!"

"I can do it!" exclaimed the stone ape, and bounded over to the waterfall. He closed his eyes, gathered his strength and leapt through the swiftly falling water. When he opened his eyes he saw before him an iron bridge. Beyond the bridge was the entrance to a cave of great splendor and beauty. It was big and high, and inside were

rock formations of wondrous colors. It was called Heavenly Cave.

After exploring the cave, the stone ape went back over the bridge, leapt back through the curtain of falling water and landed among the other apes. He told them of the beautiful cave that lay on the other side of the waterfall. When they understood what he had found, they became very excited and all began to jabber at once. They begged the stone ape to lead them to the cave.

"Follow me!" he shouted. He jumped back through the water and, with him in the lead, the others had the courage to jump too. One by one they came through behind him, and they all went over the bridge to the cave. So it happened that the stone ape became the king of the apes. He and his subjects lived in happiness and contentment in Heavenly Cave for over three hundred years.

During these years, the stone ape was continually learning new things. He became more and more intelligent until he grew as intelligent as a human being. And as he became smarter and smarter, he also became more and more curious. Soon he began to learn unusual things, and he became the master of seventy-two different kinds of miraculous powers. He could take the shape of anything wished—human, plant, animal, or mineral. He could ride clouds as if they were horses, and he was not afraid of any being or thing.

This was all very well and good, except that the stone ape used his powers only for his own amusement and glory and didn't seem to care how much trouble he made for others.

Now the stone ape had a magic iron rod, which he had stolen from the palace of the dragon king under the sea, and this rod was a very powerful weapon. He used it to fight his way into the underworld, the realm of the dead. There he forced the ten princes of the dead to give him the book of life and death. This book held the names of every creature and the number of years each had to live. He looked through the book until he found the page where his own name was written. He tore the page out and crumpled it in his hand. Now the stone ape would never die.

The stone ape made a lot of troubles. The Lord of Heaven had been watching the stone ape and saw all the trouble he was causing. "This must stop," he thought. But as the stone ape was so wily and clever and had so many miraculous powers, it was very difficult to control him. "Only the Lord Buddha can tame him now," the Lord of Heaven concluded. So he sent a messenger to the Buddha and respectfully requested him to do something to keep the stone ape from wreaking havoc in heaven and on earth.

The Lord Buddha came out of the West. When he saw him, the stone ape shouted at him, "Who are you that dares to disturb me?" The Buddha looked at him calmly, "I am the Buddha," he said, "and I am here to tame you."

"Do you know to whom you are speaking?" said the stone ape, full of pride and defiance. "I am the stone ape. I am the king. I hold the hidden knowledge. I am master of seventy-two different kinds of miraculous powers and the holder of eternal life? I am afraid of no one, certainly not you!"

The Buddha smiled. "I've heard that you can somersault over the clouds and that each somersault takes you a thousand miles. Can you really do that? If you can, show me."

"I can do anything!" shouted the stone ape. And off he went, somersaulting through the sky. He went head over heels so fast and so many times, he became like a whirlwind, high up beyond the clouds. He continued for a long, long time, covering an immense distance with every turn. Finally, he came to what seemed like the edge of the sky, where he saw five huge, red pillars. They were very tall and disappeared into the sky above. "My goodness!" he thought. "I must have reached the end of the world!" He was very proud of himself. To show he had been there, he somersaulted up to the middle pillar and made his mark on it. Then he somersaulted back to where he had started. The Buddha was waiting for him.

"Well, not only can I somersault a thousand miles at a time, but I have somersaulted to the end of the world!" he boasted. "If you don't believe me, go have a look for yourself. I left my mark on one of the pillars."

"Perhaps you should have a look at this," said the Buddha and held up his hand. On the Buddha's middle finger the stone ape saw the mark he had made on the pillar at the end of the world. He was stunned and afraid. The whole time he was somersaulting, he was in the palm of the Buddha's hand!

The stone ape realized he had met his master and he tried to escape. But the Buddha put his hand down over him. Then he made a magic mountain out of the basic

elements of the world--water, fire, wood, earth, and metal --and put it over the stone ape. Try as he would, using all his miraculous powers, the stone ape was unable to escape from the beneath the magic mountain. At last earth and heaven were safe from his mischief.

The apes say that after a thousand years beneath the magic mountain, the stone ape reappeared on the island. They say that time brought about in him a change of heart, and nowadays, though he still has lots of fun, he uses his intelligence and powers to help others. (Chodzin & Kohn, 1997, p. 38-42)

Work Sheet 4-2

A List of New Words

Vocabulary Word	Definition	A Sentence Example

Focus Sheet 4-3

Elements of a Story

Setting: When and where did the story take place?

Characters: Who are the characters in the story?

Problem: What is the main problem that the whole story is about?

Action: What are the important things that happened in the story?

Resolution: How does the story end?

Theme: What is the story trying to tell readers?

(Devine, 1986)

Work Sheet 4-4

Identifying Elements of the Story "The Stone Ape"

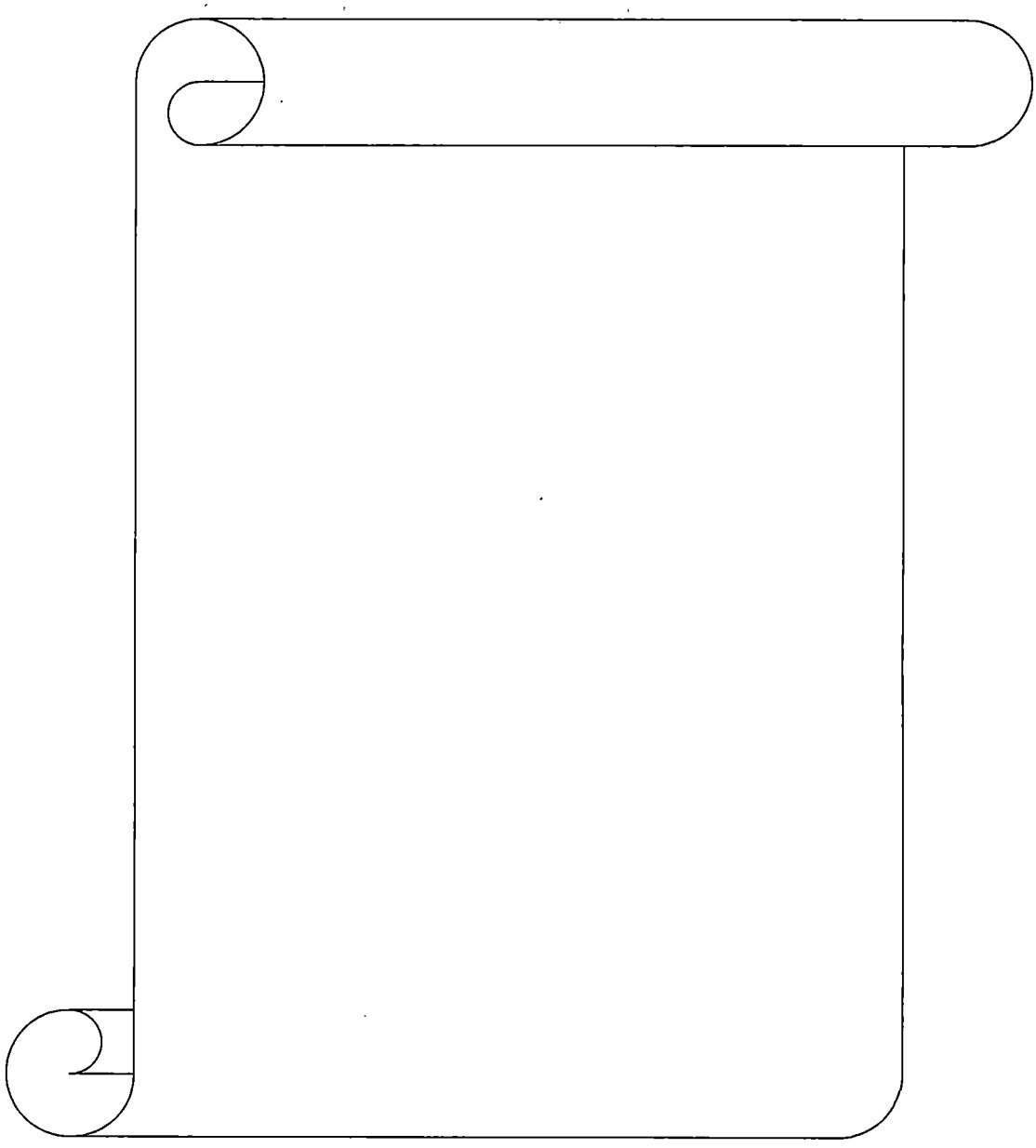
Setting	
Characters	
Problem	
Action	
Resolution	
Theme	

Work Sheet 4-5

Writing a Song

Title of the song: _____

Students: _____



Assessment Sheet 4-6

Retell the Story and Self-Assess the Song Writing Activity

Retell the story, which includes its setting, characters, problem, action, resolution, and theme.

_____

_____

_____

_____

_____

_____

_____

_____

Self-evaluate your contributions to song writing activity.

Circle the answer.

1. Did I participate?	Yes	No
2. Did I respect others' opinions?	Yes	No
3. Did I contribute to my group performance?	Yes	No
4. Did my group perform well?	Yes	No
5. Did I prepare for the performance?	Yes	No

Lesson Five

Magic Wishes That Fly Up to the Sky

Level: Elementary EFL: Ages 10-12

Objectives: 1. Exploring the meanings of symbols
2. Making a kite
3. Flying a kite

Materials: Focus Sheets 5-1, 5-3, 5-4, 5-6, & 5-7; Work Sheets 5-2 & 5-5; Assessment Sheet 5-8

Warm Up: The instructor asks if anyone knows how to make and fly a kite. Students guess the reasons for flying kites.

Task Chain 1: Exploring the Meanings of Symbols

1. Students are given Focus Sheet 5-1 (The Origin of Kite Flying). Students choose to read the story by themselves or with partners.
2. Using Work Sheet 5-2, students work in pairs and guess the meaning of the four symbols.
3. Students share their guesses with other groups. The instructor gives the correct meaning of each symbol (Focus Sheet 5-3). Students compare their answers with the correct answers.

Task Chain 2: Making a Kite

1. Students are given Focus Sheet 5-4, which tells the supplies needed to make a kite.
2. Students are given Work Sheet 5-5, which describes the method of making a kite. Students put each step in the right order.
3. Students are given Focus Sheet 5-6, the correct orders of how to make a kite.
4. Students start to make a kite.

Task Chain 3: Flying a Kite

1. The instructor asks students if they know how to fly a kite. Students guess how to do it. Students are given Focus Sheet 5-7, which teaches them how to fly a kite.

Final Assessment: Flying a Kite

1. The instructor asks students to go outdoors. Students bring their own kite and try to fly it. Students are given Assessment Sheet 5-8. The instructor explains what KWLH chart is. Student also answer questions about making and flying a kite.

Focus Sheet 5-1

Magic Wishes That Fly Up to the Sky

Once upon a time, and long ago in China, there lived a painter of holy pictures. Many people would buy his pictures and offer them in the temple to their gods. They hoped and prayed their wishes would come true.

For example, if somebody wanted to be smart, he would offer a picture of Manjushri, the God of Wisdom. If somebody wanted money, he would offer a picture of an abacus, which was used for counting money.

One day, a local woman came to the painter. She said, "I want a picture of a dragon, the symbol of wealth, wisdom, power, and nobility, so that my son will grow up big and strong. But I do not want an ordinary picture. I want you to paint it as a kite with strings. Then I can fly it right up to the sky and the gods in heaven will see it immediately, instead of having to come down to this temple."

The man painted a marvelous dragon kite for the woman, which she immediately flew to the heavens. Her son helped with the strings, and already he seemed bigger and stronger, richer and nobler, to everyone who saw him.

And so the other villagers went to the painter asking for their offerings to be painted on kites, too. They asked for many wishes for their children, their parents, their husbands or wives, and for themselves. The holy painter was so busy painting kite after that he hardly had any time to paint holy pictures.

The people requested kites that looked like reptiles, fish, and crustaceans. The villagers asked the holy painter to paint their kites with all types of animals. And the painter made flower and symbol kites, too.

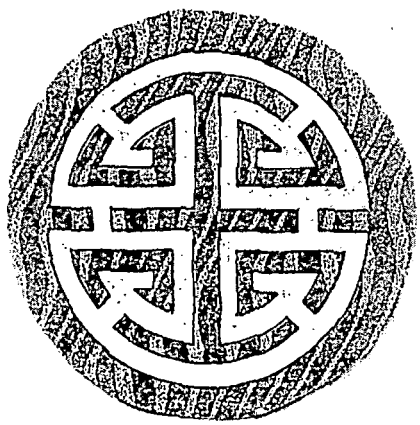
In addition to asking for wishes, many people used their kites to send off bad luck. They would let their kite strings out as far as they could go and then cut the strings, sending the bad luck away. As the kite drifted far away with the wind, all disease and calamities were carried away, too.

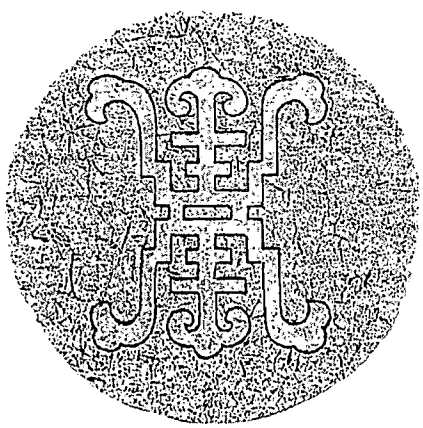
Later on in China, these magic kites took on an even deeper meaning and developed into a festival of kites called "The Double Ninth Festival (Chung Yang)", held on the ninth day of the ninth month: September 9^{th}.

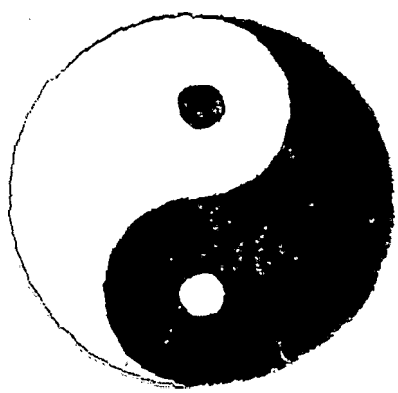
When the chrysanthemum, or flower of autumn, blooms, families celebrate by climbing up to the highest hills, having picnics, and flying their kites. One this day, kite-flying is taken as a symbol of rising higher and higher, being better and better, strong, smarter, and finer in everything one does. (Demi, 2000)

Work Sheet 5-2

Meaning of Symbols





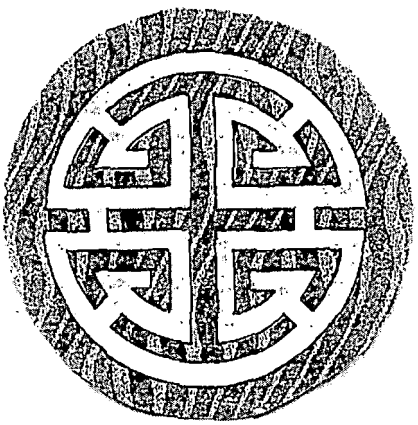


Focus Sheet 5-3

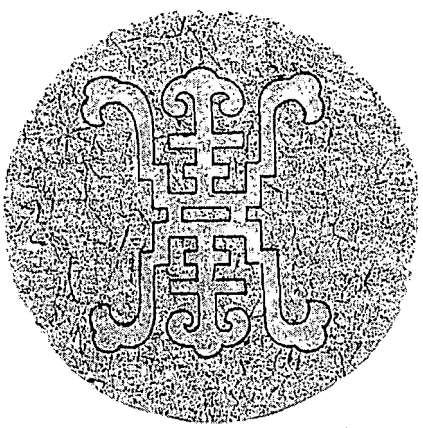
Answer Sheet for

Meaning of Symbols

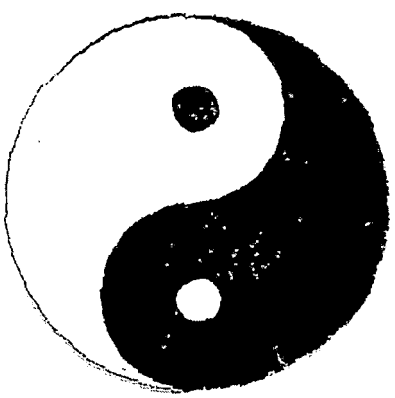
Fu, a symbol of happiness.



Lu, to bring riches and fame.



Shou, for longevity.



Tai Chi, for creativity and harmony in the universe.

(Demi, 2000)

Focus Sheet 5-4

Materials for Making a Kite

Supplies needed to make a kite:

1. lightweight paper, 3 feet by 3 feet
2. 2 round wood dowels (1/8 inch thick); one 36 inches long and one 32 inches long
3. kite string
4. thread
5. glue, twist tab (optional)
6. paint
7. scissors
8. tape
9. ruler
10. reinforcement rings (the kind used for notebook binder paper)
11. crepe paper

Work Sheet 5-5

Making a Kite

Put the steps in correct order. There are 10 steps.

Description	No.
Place your kite frame on the back of your picture, and hold it in place with tape. Trace the outline of your kite on the paper.	
Paint a big picture on it that can be seen from far away. Remember that your picture can represent a special wish. Let the paint dry.	
Adding a tail will help balance the kite so it will fly straight. Cut a hold on each side of the mast, just about the bottom hems of the kite; again, use reinforcements to keep the holes from ripping.	
Outline the kite with string tied to the four dowel ends. Don't pull the string so tightly that the dowels bend--they should be straight.	
Fasten the dowels securely at a right angle with kite string or thread and glue, or with a twist tab.	
Take a lightweight piece of paper that measures 3 feet by 3 feet and lay it on the floor.	
Make another outline 1 inch wider all around so you can fold the paper over the outlining string, and paste it down. Spaces must be cut in the paper where it matches up to the wood dowels.	
To attach your flying line, first make two holes in your kite diagonally across the mast: one above the joint, one below the joint—use reinforcements on the holes to prevent the paper from ripping. The string should go through one hole from the front and come back out through the other hole. Tie securely so that the knot is visible from the front of the kite.	
Now cross the shorter dowel a quarter of the way down the long dowel.	
Now you are ready to make the tail. First cut a piece of string that measures 10 feet to 12 feet. Then tie 6-inch crepe-paper bows along the line, one per foot. Now tie the tail string through the holes you made at the bottom of the kite in Step 9.	

Focus Sheet 5-6

Steps For Making a Kite

Description	No.
Take a lightweight piece of paper that measures 3 feet by 3 feet and lay it on the floor.	1
Paint a big picture on it that can be seen from far away. Remember that your picture can represent a special wish. Let the paint dry.	2
Now cross the shorter dowel a quarter of the way down the long dowel.	3
Fasten the dowels securely at a right angle with kite string or thread and glue, or with a twist tab.	4
Outline the kite with string tied to the four dowel ends. Don't pull the string so tightly that the dowels bend--they should be straight.	5
Place your kite frame on the back of your picture, and hold it in place with tape. Trace the outline of your kite on the paper.	6
Make another outline 1 inch wider all around so you can fold the paper over the outlining string, and paste it down. Spaces must be cut in the paper where it matches up to the wood dowels.	7
To attach your flying line, first make two holes in your kite diagonally across the mast: one above the joint, one below the joint—use reinforcements on the holes to prevent the paper from ripping. The string should go through one hole from the front and come back out through the other hole. Tie securely so that the knot is visible from the front of the kite.	8
Adding a tail will help balance the kite so it will fly straight. Cut a hold on each side of the mast, just about the bottom hems of the kite; again, use reinforcements to keep the holes from ripping.	9
Now you are ready to make the tail. First cut a piece of string that measures 10 feet to 12 feet. Then tie 6-inch crepe-paper bows along the line, one per foot. Now tie the tail string through the holes you made at the bottom of the kite in Step 9.	10

(Demi, 2000)

(Correct order for Work Sheet 5.5: 6, 2, 9, 5, 1, 7, 8, 3, 10)

Focus Sheet 5-7

Flying a Kite

Step 1:

Stretch the kite tail on the ground. If the wind isn't at least 8 miles per hour, you may need a friend to hold your kite up off the ground to get it airborne.

Step 2:

Run into the wind with your kite behind you. The wind will catch your kite. Let it fly. Let the string out so the kite can go higher.

Assessment Sheet 5-8

Knowing How to
Make and Fly a Kite

KWLH Chart

What We Know	What We Want to Find Out	What We Learned	How Can We Learn More

What is my kite's symbol? _____

What is my wish for making this kite? _____

_____

_____

_____

Do I follow the correct steps to make a kite? Can my kite fly high? _____

_____

_____

_____

_____

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