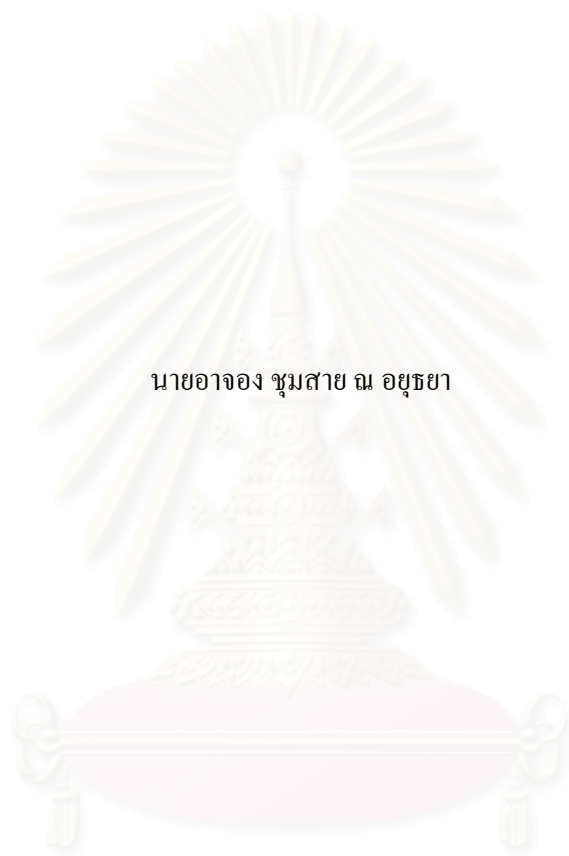


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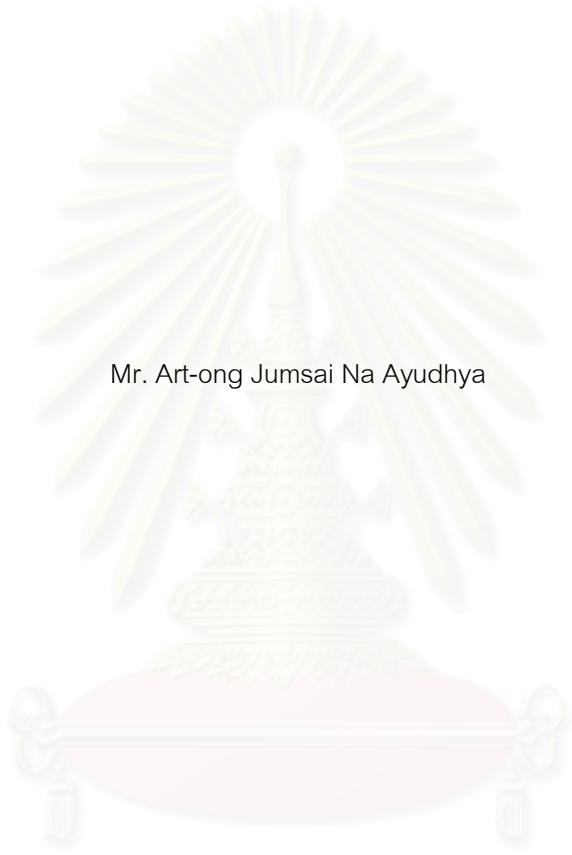
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A DEVELOPMENT OF THE HUMAN VALUES INTEGRATED INSTRUCTIONAL MODEL
BASED ON INTUITIVE LEARNING CONCEPT



Mr. Art-ong Jumsai Na Ayudhya

สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

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วัตถุประสงค์ของการวิจัย 1. เพื่อเสนอแนวคิดการเรียนรู้แบบบูรณาการคุณค่าความเป็นมนุษย์จากการหยั่งรู้
 ด้วยตนเอง 2. เพื่อศึกษาและค้นคว้าเกี่ยวกับทฤษฎีการเรียนรู้รวมทั้งเอกสารในต่างประเทศที่มีการนำเอา
 แนวคิดการเรียนรู้แบบบูรณาการคุณค่าความเป็นมนุษย์ไปใช้ 3. เพื่อวิจัยแบบ ex post facto ในโรงเรียนสัตยา
 ไสเพื่อหาสาเหตุที่ทำให้นักเรียนเกิดการเปลี่ยนแปลง 4. เพื่อพัฒนารูปแบบการเรียนการสอนแบบบูรณาการ
 คุณค่าความเป็นมนุษย์ 5. เพื่อทดสอบและปรับปรุงรูปแบบการเรียนการสอนแบบบูรณาการคุณค่าความเป็น
 มนุษย์ 6. เพื่อศึกษาผลของการวิจัย

ผลของการวิจัย สรุปได้ดังนี้

การศึกษาและค้นคว้าเอกสารพบว่า ต่างประเทศได้ให้การยอมรับแนวคิดการเรียนรู้แบบบูรณาการ
 คุณค่าความเป็นมนุษย์มีใช้เพียงแต่ในประเทศไทยเท่านั้น ในหลายประเทศทั่วโลกพบว่า มีหลักการ
 เปลี่ยนแปลงความคิดและพฤติกรรมของผู้เรียน ครู และ ผู้ปกครอง ซึ่งเกิดขึ้นจากการมีคุณค่าความเป็นมนุษย์
 ๕ ประการได้แก่ ความจริง ความประพฤติดชอบ ความสงบสุข ความรัก และอิหิงสา

การวิจัยแบบ ex post facto ในโรงเรียนสัตยาไส พบว่า สาเหตุที่ทำให้นักเรียนเกิดการเปลี่ยนแปลง
 ความคิดและพฤติกรรมมาจาก การสวดมนต์ภาวนา นั่งสมาธิทุกวัน ได้รับแรงบันดาลใจจากครู เพื่อน ๆ ใน
 โรงเรียนและบรรยากาศของโรงเรียน

จากการศึกษาทฤษฎีการเรียนรู้ต่าง ๆ พบว่า มีแนวคิดที่ใกล้เคียงกับแนวคิดการเรียนรู้แบบบูรณาการ
 คุณค่าความเป็นมนุษย์และการวิจัยข้างต้น ผู้วิจัยจึงได้พัฒนารูปแบบการเรียนการสอนแบบบูรณาการคุณค่า
 ความเป็นมนุษย์ขึ้นมา ซึ่งรูปแบบดังกล่าวประกอบด้วย ทฤษฎีและแนวคิดของรูปแบบ วัตถุประสงค์ และ
 กระบวนการเรียนการสอนที่สำคัญคือ 1.การสวดมนต์นั่งสมาธิแบบใช้แสงสว่าง 2. การสอนโดยสร้างแรง
 บันดาลใจให้กับผู้เรียน 3. การสร้างบรรยากาศที่ดีโดยครูต้องเป็นตัวอย่างที่ดี 4. การดึงคุณค่าความเป็นมนุษย์
 ออกมาจากภายในตัวผู้เรียน (Educare) 5. การบูรณาการคุณค่าความเป็นมนุษย์ในรายวิชาและกิจกรรมต่าง ๆ
 6. การจัดการเรียนรู้แบบร่วมมือ (Collaborative Learning) นอกจากนั้นรูปแบบยังให้รายละเอียดเกี่ยวกับ
 บทบาทที่จำเป็นสำหรับผู้บริหาร ผู้ปกครอง ชุมชนและรัฐ ในการพัฒนาเด็กด้วย

ผู้วิจัยได้นำเสนอรูปแบบการเรียนการสอนแบบบูรณาการคุณค่าความเป็นมนุษย์ ต่อครูและอาจารย์ใน
 ต่างประเทศ เช่น ประเทศคาซัคสถาน จีน อินโดนีเซียและหมู่เกาะฟีจี ซึ่งเป็นที่ยอมรับของครูและอาจารย์ พร้อม
 กันนั้นได้มีการทดลองสอนรูปแบบนี้กับนักเรียนระดับชั้นประถมศึกษาและนิสิตในระดับอุดมศึกษาในประเทศไทย
 ไทย ซึ่งพบว่าสามารถช่วยให้ผู้เรียนเกิดการเปลี่ยนแปลงความคิดและพฤติกรรมไปในทางที่พึงประสงค์


ภาควิชามัธยมศึกษา

ลายมือชื่อนิสิต..... 

สาขาวิชาหลักสูตรและการสอน

ลายมือชื่ออาจารย์ที่ปรึกษา..... 

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ลายมือชื่ออาจารย์ที่ปรึกษาร่วม..... 

MAJOR: CURRICULUM AND INSTRUCTION

KEY WORD: HUMAN VALUES / SATHYA SAI SCHOOL / LEARNING / INSTRUCTION

ART-ONG JUMSAI NA AYUDHYA: A DEVELOPMENT OF THE HUMAN VALUES

INTEGRATED INSTRUCTIONAL MODEL BASED ON INTUITIVE LEARNING CONCEPT.

DISSERTATION ADVISOR: ASSOCIATE PROFESSOR DR. TISANA KHEMMANI

DISSERTATION CO-ADVISOR: PROFESSOR EMERITUS DR. NONGLAK WIRATCHAI

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The objectives of this study are: 1. To introduce the researcher's Human Values Integrated Learning Concept derived from intuition; 2. To conduct documentary research pertaining to learning theories and documents in countries where the researcher's intuitive learning concept has been introduced; 3. To conduct ex post facto research in the Sathya Sai School to identify the causes that led to the transformation, if any, in the children; 4. To develop the Human Values Integrated Instructional Model; 5. To test and refine the Human Values Integrated Instructional Model; 6. To study research outcome.

The research findings can be summarized as follows:

Documentary research had demonstrated a wide acceptance of the Human Values Integrated Learning Concept not only in Thailand but also in many other countries around the world. There were evidences of transformation taking place in students, teachers and parents. Transformation was evident through the emergence of Human Values which were defined as the five universal values of Truth, Right Conduct, Peace, Love and Non-Violence.

The ex post facto research conducted in the Sathya Sai School identified the main causes of transformation as daily prayers and meditation, inspiring teachers, friends in the school, and the school atmosphere.

From the study of various learning theories that were compatible with Learning Concept, and the above research, the Human Values Integrated Instructional Model was developed. The Instructional Model contained the following: theory and concept; objectives; context; components of the model. The important part of the components was the process which consisted of: 1. The Light meditation; 2. Method – inspiration; 3. Create atmosphere – teachers' example; 4. Educare – to bring out the Human Values from the students; 5. Integration of Human Values in all subjects and all activities; 6. Collaborative learning. The model also identified the roles of the school administrator, parents, community and the government in promoting human values in children.

The Model was presented to teachers and academics in Thailand, Kazakhstan, China, Indonesia and Fiji Islands and obtained a general approval. The model was also tested on children at the primary level as well as at the university level in Thailand which confirm the expected outcome of the model which is the transformation of the students.

Department: Secondary Education

Field of Study: Curriculum and Instruction

Academic Year: 2003

Signature of Student.....

Signature of Advisor.....

Signature of Co-advisor.....

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Finally, the researcher received constant inspiration from Sri Sathya Sai Baba, the Chancellor of the Sri Sathya Sai Institute of Higher Learning (Deemed University), Puttaparthi, Andhra Pradesh, India.

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Chapter 1

Introduction

Rationale

Homo sapiens are quite apart from other species of life on this planet as far as learning capacity is concerned. The human intelligence allows human beings to learn from past experiences and so every new generation, we are able to excel in science and technology and go far beyond what our forefathers have ever dreamt was possible. At the same time, human beings have also fallen down much further than animals. We have had wars after wars. There is no end to cruelty. Brothers are killing brothers. It seems that human beings are unable to learn to live in peace with one another.

As we enter the 21st century, great strides in the field of science and technology are evident. But the world was shocked with the destruction of the World Trade Center in New York followed by wars in Afghanistan and Iraq. The wars also showed how we use science and technology in weapons to kill our fellow human beings. Electronic warfare, guided missiles use such advanced technology to destroy their targets with great accuracy but also a great loss of lives.

It seems that the world leaders and world politicians are incapable of bringing peace into the world. Many people have lost faith in politics. The only hope seems to be in education. In the 20th century, many educators have come forward with many new theories such as behaviorism, cognitivism, humanism, eclecticism, information processing, theory of multiple intelligences, constructivism, constructionism, cooperative learning, etc. However, education has failed to bring about peace in the world. It is no fault of the educators but it can be seen that education is often led by politics. When the Russians launched the sputnik into space for the first time in the history of mankind, the Americans were shocked and a new curriculum was designed to

regain supremacy in the field of science and technology. The main motivation for education is not for humanity but for economic prosperity or technological supremacy.

Through many bitter lessons, many countries have come to realize that education should not just produce *great* people only but education should produce *good* people as well. It is clear that if we have people who are clever but selfish or with great intellectual capability but without moral character then our world will not have peace. Human values are required in politics, in business, in factories and offices, in schools and universities; in fact, human values must be with all human beings and in all walks of life. Instead of violence, we need love and compassion in the heart of human beings. Thus there is a need for a model of instruction with human values as an integral part. This must be simple enough for all teachers to understand and put into practice in the classroom.

In Thailand, the new constitution of 1997, Article 81 stated that: *"The state must arrange education and training and give support to the private sector to arrange education and training that will give human values integrated knowledge..."* Following up on the constitution, the parliament then passed the National Education Act, B.E. 2542 (1999) and amended in the Second National Education Act B.E. 2545 (2002) which specified the national objective for education. Article 6 of the Act stated: *"Education must lead to human excellence physically, mentally, intellectually and spiritually with human values, ethics and culture and the ability to live in peace with one another."*

In 1982, the researcher met Sri Sathya Sai Baba in India for the first time. Sri Sathya Sai Baba is Chancellor of the Sri Sathya Sai Institute of Higher Learning (Deemed University) in Puttaparthi, Andhra Pradesh, India. He has established not only the university but many other colleges as well as kindergarten, primary and secondary schools. A few months later in 1983, the researcher had a private interview with Sri Sathya Sai Baba who gave the following advice: *"Education without character, politics without principle, commerce without morality, science without humanity, are not only useless but positively dangerous."* He further said: *"The end of education is character"*

and explained that education must bring out the five human values of right conduct, peace, truth, love and non-violence.

From the meeting with Sri Sathya Sai Baba in India, the researcher was motivated to work in the field of education and started to experiment with children in the slum area of Bangkok and found that there was significant change in the behaviour of the children. From the experience of teaching children, the researcher then started to train teachers in Education in Human Values. But it was not until the year 1987 that the researcher discovered through intuition the concept of human values integrated learning as described in chapter 3 of this dissertation. This helped to clarify how human beings learn so as to become a person of character. The researcher then began to give talks and lectures on this concept of human values integrated learning in Thailand as well as many countries around the world. A great deal of interest was generated and it was decided to set up a model school where this learning concept would be applied and where teachers and educators could come observe and study. With a lot of support from a number of people, the Sathya Sai School was established in 1992 in the Lopburi Province of Thailand. The Sathya Sai School is a boarding school starting initially with only the first grade (Prathom Suksa 1) of the primary school and every year a higher grade is added. Thus the children who joined the school since its inception is now (2003) in the 12th grade (Mathayom Suksa 6) of the secondary school. Education is given free, with food and personal items charged to the parents at cost. The school uses the national curriculum but instruction uses the human values integrated learning concept.

In 1997, it was decided to propagate this human values integrated learning concept around the world and so the Institute of Sathya Sai Education was set up to train foreign teachers using the English language medium. Many teachers and educators came to study and applied what they have learned in teaching children of the Sathya Sai School. These foreign students returned to their motherland and many have started Sathya Sai Schools using the same concept in various countries.

The human values integrated learning concept is now being used in many schools around the world. Already 51 Sathya Sai Schools have been established in some 30 countries with the same ideals and quality standard that was written for the Sathya Sai School in Thailand (SAI 2000, 2000). It has now become necessary to conduct research for the following reasons:

1. To document the evolution of Sathya Sai instructional model.
2. To provided empirical evidence for the Human Values Integrated Learning Concept.
3. To clarify the effectiveness of the learning concept.
4. To develop an instructional model so as to make instruction more systematic so that it can be used at all level of education - in elementary and secondary schools as well as colleges and universities.

Much improvement will be required in order to extend and disseminate the Human Values Integrated Instruction Model amongst teachers and educators. It is for these reasons that the researcher is conducting this study to develop a human values integrated instructional model.

Objectives of the Study

To develop the human values integrated instructional model:

1. To introduce the researcher's intuitive learning concept.
2. To conduct documentary research pertaining to learning theories and documents in countries where the researcher's intuitive learning concept has been introduced. Where documents are not available, interviews and questionnaires will be used.
3. To conduct ex post facto research in the Sathya Sai School to identify the causes that led to the transformation, if any, in the children.

4. To develop the Human Values Integrated Instructional Model
5. To test and refine the Human Values Integrated Instructional Model that had been developed.

Procedures of the Study

Based on the researcher's intuition, the original concept of Human Values Integrated Learning was obtained. From this concept, the expected outcome in the learner consists of the 5 human values of love, truth, right conduct, peace and non-violence. This study presented how the intuitive learning concept was academically developed and become the Human Values Integrated Instructional Model, the outcome of which was thoroughly examined to test the Model. The research method thus consisted of six phases as follows and shown in Figure 1.1.

Phase 1: a study of various theories of learning was made in order to make use of them in the development of the model (Chapter 5).

Phase 2: documentary research was made at the schools and institutions that had implemented this concept (Chapter 5).

Phase 3: ex post facto research was done at the Sathya Sai School to try to identify the causes that gave rise to the desired outcome of the learners (Chapter 5).

Phase 4: the Human Values Integrated Instructional Model was developed (Chapter 6).

Phase 5: the Human Values Integrated Instructional Model was presented to teachers, educators to obtain a feedback (Chapter 7).

Phase 6: the model was empirically tested on students at both the basic level of education as well as higher education (Chapter 7).

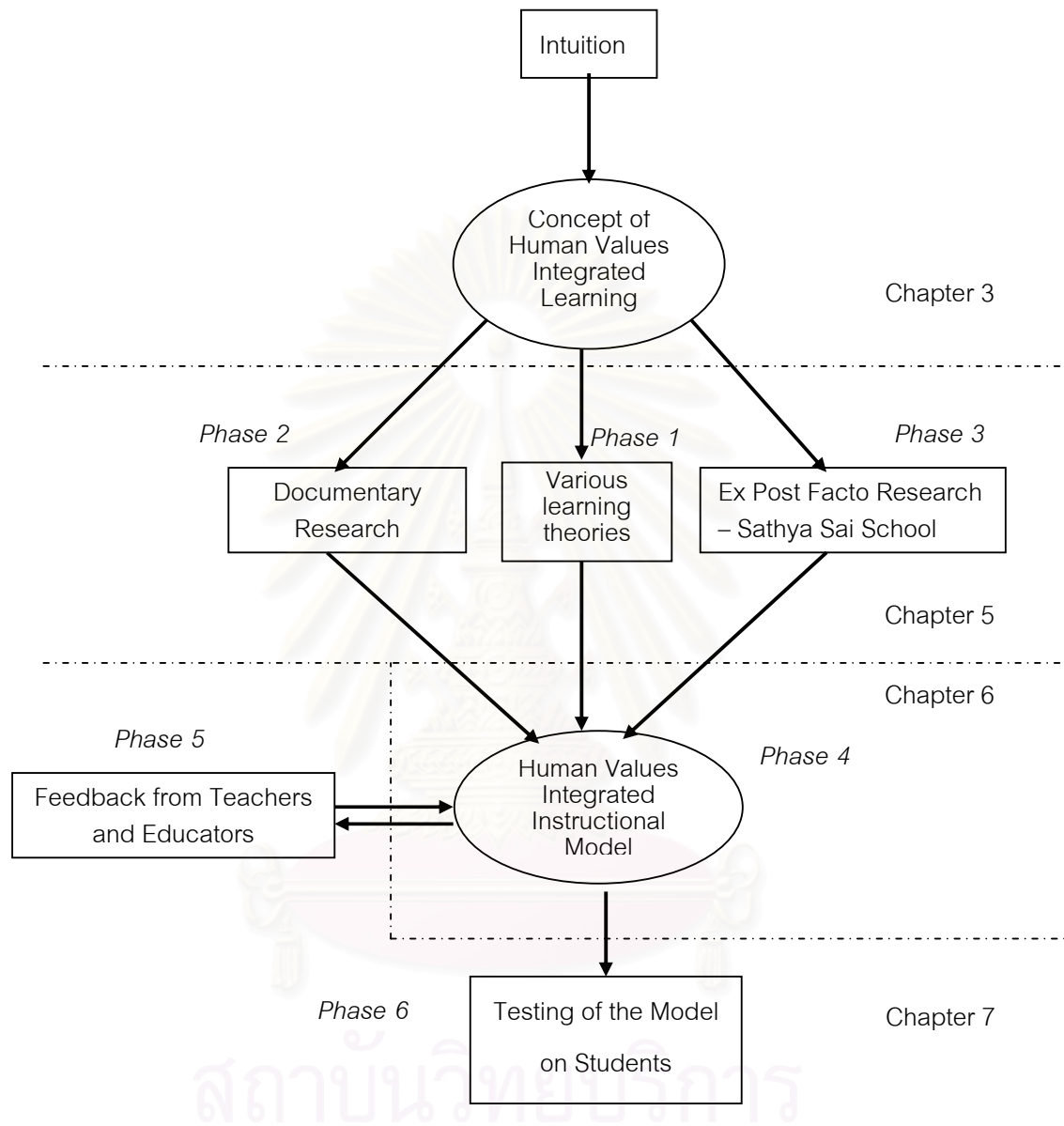


Figure 1.1 The Procedures of the study

Significance of the Study

It was expected that this study would result in a model that could be used in the training of teachers in Thailand as well as abroad. The model must be easy to understand and could be easily implemented and applied by teachers in the classroom situation. This could help to promote education reform in both learning and instruction.

An important part of this study was that the model would show the way to help bring about human excellence in the students. The model would become a useful tool in the development of good character which meant that the students would exhibit human values of love, truth, peace, right conduct and non-violence in their life.

The dissertation would be later translated into Thai. To spread this to other countries, it was expected that it will be further translated into French, Spanish, Portuguese, German, Russian, Japanese and Chinese.

Scope of the Study

In phase 6 of the study, the Human Values Integrated Instructional Model was tested at three different locations. There were one primary school, one primary/secondary school and one university participate in this study. They were Anubal Lamnarai School (primary school) in Chaibadan District, Sathya Sai School (primary and secondary school) and the Faculty of Education, Chulalongkorn University. The test was conducted for two months with one period per week at the primary school Anubal Lamnarai and for 5 weeks with two periods per week at Chulalongkorn University. The model implementation was intended for the whole school including parents and the community. But in the case of Anubal Lamnarai and Chulalongkorn University, only a small group of children or students are involved. However, these tests were considered to be adequate because it was only an empirical evidence supplemented to all other evidences from ex-post-factor research.

In testing all the three schools, only in the case of Sathya Sai School that the children received the full treatment which included all the factors that influenced the children such as parents, the community, all the teachers, their friends, staff of the school as well as the total school atmosphere. The complete empirical study at the Sathya Sai School would yield several results of the Human Values Integrated Instructional Model. The study at the Chaibadan primary school and Chulalongkorn University served as a comparative control group to study the outcome the student gained.

Assumption

It is assumed here that the Human Values Integrated Learning Concept was derived from the intuition of the researcher.

Definitions of Terms

Human Values: The Human Values referred to in this dissertation consist of the values of Right Conduct, Peace, Truth, Love and Non-violence.

Right Conduct: Persons with the value of right conduct are persons who have good behaviour with good manners. They will always act without selfishness and think of others and the society before themselves. They will make use of what they have learnt for the benefit of others. They will be helping others and serve the society they live in.

Peace: Persons with the value of peace are calm and have the ability to control the senses and emotions. They feel at peace with themselves as well as know how to live in peace with others. They have high EQ (emotional quotient). They are able to control anger, lust, envy, pride, attachment, hatred, fear and anxiety which are all

the opposite to peace.

Love: The value of love refers to pure love which gives rise to compassion for all. Persons with the value of love only desire to see joy and happiness in others. They are happy when others are happy. Thus they will do everything to help others to be happy. They are full of self-sacrifice, desiring nothing for themselves.

Truth: Persons with the value of truth are people of wisdom and understanding for they are always seeking for a deeper understanding of the higher truth. They have an understanding that the world around them is impermanent and they learn to be detached from all things that are not permanent. They have the feeling of oneness and see themselves in others. They realise that whatever they do unto others, they are doing to themselves. Their conscience dictates their actions. They are able to use their intuition, which gives rise to wisdom knowledge and understanding of life.

Non-violence: The value of non-violence is really a summation of all the other four values. Non-violence is only possible when there are the values of peace, love, right conduct and truth. Persons with the value of non-violence will also respect the law and there will be non-violation of the laws of nature. Thus, they will love all people, animals and the environment.

Intuitive Learning Concept: This is the learning process involving human Values derived intuitively by the researcher. The concept consists of several components: the physical body and the five senses, the conscious mind, the sub-conscious

mind, the super-conscious mind, the 6th sense and the environment.

Instructional Model: An instructional model in this study refers to a set of interrelated components, which describes the roles, processes and activities to achieve the stated aims.

Human Values Integrated Instructional Model: It is a guideline developed around the researcher's Intuitive Learning Concept to help the school to inculcate the five human values in learners which describes the principle, teacher's role and the process of integrating the five human values in teaching – learning various contents as its core and describes other supportive roles, processes and activities influencing the teaching-learning process. They are: the process of learning and the role of the learner; the role of the teacher in helping the learner in the learning process both inside and outside the classroom; the role of administrators in managing the learning process and helping to create the right atmosphere for learning; extra-curricular activities enhancing the five human values and the role of the parents and the community.

Chapter 2

Related Literature Review

The oldest literature known are sacred books such as the Vedas, Ramayana, and Bhagavad Gita. All these sacred books are written to teach everyone about how to lead a moral life. In the Ramayana, Lord Rama was an example of righteous conduct and self-sacrifice. Hanuman gave an example of duty and devotion. Laksamana was an example of selfless service. In the Bhagavad Gita, Lord Krishna taught Arjuna how to perform duty without being attached to the result. This is what is referred to as Karma Yoga. Krishna also taught Arjuna the path of knowledge (Jyana Yoga) and the path of devotion (Bhakti Yoga). All these sacred texts are full of human values.

The Old Testament which became the basis of three major religions, Judaism, Christianity and Islam, gave the rules of conduct - the Ten Commandments. The New Testament describes the life and teaching of Lord Jesus (Circa 4BC – 30 AD). Jesus was a supreme example of sacrifice by allowing Himself to be crucified on the cross in order to save the world. Jesus taught his disciples to love one another and to “love thy neighbor as thyself”.

Some five hundred years before the birth of Jesus, Greek philosopher Socrates (470? – 399 BC) was teaching his disciples through asking questions. The disciples had to find out the answer for themselves. This method is a very effective way of allowing the student to learn to think. Other great thinkers in Greece was Plato (417 – 327 BC) and his pupil, Aristotle (384 – 322 BC). Plato talked about mind or spirit as the basis for every thing. Whereas Aristotle talked about the environment as the source of knowledge and learning took place through contact with the environment (Gredler, 2001, p.6).

At about the same period as Socrates, the Buddha (Circa 563 – 483 BC) was teaching his disciples the Four Noble Truths. The Buddha started with the assumption that there was suffering in the world and started to analyze the cause of suffering. The Buddha then showed the way out of suffering through the Noble Eightfold Path. The Buddha had demonstrated a scientific approach in his analysis of the problem. In the Kalama Sutra, the Buddha would caution everyone not to believe a statement easily because a teacher had told us, or some authority had made the statement. We should use our discrimination and think about it carefully before deciding whether to believe or not. The most important literature in Buddhism is the Tripitaka where the teachings of the Buddha were recorded.

We have seen the main difference in idea on the origin of knowledge between Plato and Aristotle. Plato taught that intelligence is inborn and comes from within. Whereas Aristotle argued that intelligence is developed through interaction with the environment. The Buddha, however, had demonstrated that both are essential in obtaining knowledge. The Buddha himself started the path to knowledge through observing the environment. He saw people who were ill with diseases. Then he saw an old man and later a dead body. This led to several questions. The Buddha wanted to know why there was suffering in the world. What was the cause of suffering? Was it possible to get rid of suffering? If it was possible, then what was the method to be used? The Buddha could not get answers from mere observation from the environment or from other teachers and he had to rely on the inner wisdom. Through practices of silencing the mind and going within, the Buddha finally found out all the answers. Educators have criticized Plato's idea that Plato did not describe the methodology of discovering this innate knowledge. The Buddha, however, prescribed the method of finding the inner wisdom in great details. Educators in the past had chosen to ignore the Buddha's method because they thought that this was religious.

Historically, the North American mainstream academic psychology had attempted to be scientific in approach and had actively excluded religion (Mikulas, 2000). However, with the availability of translated texts from eastern psychology in the

second half of the 20th century, there had been a greater interest in the West in yoga, meditation, ayurveda (natural healing system of India), martial arts, Bhagavad Gita, Buddhism, Taoism and many other eastern thoughts. It was found that eastern and western psychology complemented and helped to expand on each other.

Levels of Consciousness

In *Conjunctive Psychology* (Mikulas, 2000 pp.23 – 29), it is recognized that essentially all people exist at four totally interrelated levels of being: biological, behavioral, personal and transpersonal. Ken Wilber talked about the spectrum of consciousness: matter, body, mind, soul and spirit (Wilber, 1997). According to the Vedanta Hinduism, the individual person is composed of five sheaths or levels of being. The outer sheath is called the annamayakosha or the physical sphere. The next one is the pranamayakosha or the vital force level, which is the sphere of the emotions. Next is the manomayakosha or the sheath of the mind. Next is the vijnanamayakosha or the sheath of intuition. The final one is the anandamayakosha or the spiritual bliss level. In this dissertation, four levels will be used as a model of learning: the body, the subconscious, the conscious and the super-conscious (Jumsai, 1997). The aim in all of the above is learning to raise the consciousness from the physical to the highest level – transpersonal, spirit, anandamayakosha or the super-conscious.

Intuition

An important aspect of the learning process is intuition. Studies of people like Albert Einstein, Sir Isaac Newton and other eminent scientists have shown that intuition has an important role in the learning process (Jumsai, 1997 pp. 69-70; Marshall and Rossman, 1995). Einstein said that *"intuition is not result from deliberate intention or program, but comes directly from the heart"* (Hoffman & Dukas, 1973 cited in Braud and Anderson, 1998. p.52). Liebmann and Colella said that *"Intuiting is the process of listening for and attending to quick and ready insights or convictions that lack rational thought or inference, of contemplating perceptions based on feelings or other sensory stimuli, and of knowing without knowing."* (Costa and Liebmann, 1997 p.183). Liebmann and Wright talked about four phases being involved in the intuitive

process: (a) preparation – a question is directed to the unconscious and information is provided; (b) incubation – accumulated information simmers in the unconscious; (c) illumination – a solution is produced in a mysterious flash of insight; and (d) verification – fantasies are discerned from true inspiration (Costa and Liebmann, 1997 p.200). Anderson recommended that investigators-researchers incorporate the features, skills and procedures of intuitive inquiry into other forms of research, including conventional behavioral research (Braud and Anderson, 1994). Braud also suggested that: *"Certain meditative and contemplative practices may facilitate this type of direct learning."* (Braud and Anderson, 1994. p.53)

In order to be able to use intuition in the learning process, the mind must be calm and concentrated. Many prescriptions have been given to control the mind. In Buddhism, the most popular method is the practice of "The Mindfulness or Awareness of in-and-out breathing" (Rahula 1959). The person practicing this would sit with the back straight and upright but relaxed and then simply watch the breathing at the tip of the nose being aware of the air entering and leaving.



สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

Chapter 3

Human Values Integrated Learning Concept

Development of the Concept

In 1987, the researcher was sitting in meditation on a mountain in the north of Thailand, Doi Suthep in Chiangmai, an idea for human values integrated learning concept came intuitively. This was later used in the training of some 50,000 teachers in Thailand and about 20,000 teachers abroad. The researcher also helped to establish the Sathya Sai School in the Lopburi province, Thailand in 1991 as well as the Institute of Sathya Sai Education for training of teachers from around the world. As Director of the Institute, he helped to establish Sathya Sai Schools around the world in some 30 countries. The concept became the basis for learning and instruction in the Sathya Sai School in Lopburi as well as in various parts of the world. This concept forms the basis for this dissertation.

Rationale for the Theory

To develop a proper theory of learning and Instruction, it is necessary to be clear on what this theory is intended to achieve. When the learner goes through the process of learning and instruction, what should the learner achieve?

The National Education Act, B.E. 2542 (1999) of Thailand and amended in the Second National Education Act B.E. 2545 (2002) in Section 1, article 6, states very clearly what should be the aim of education and that is to achieve human excellence physically, mentally, intellectually and spiritually. The learner should have ethics and culture in leading his/her life and able to live in peace with his/her fellow human beings.

The Chancellor of the Sri Sathya Sai Institute of Higher Learning, Sri Sathya Sai Baba said in his discourse at the first conference of Sathya Sai Schools on November 20, 2001: “*Education is for life and not for living.*” (Sathya Sai Baba, 2001) He continued in the same discourse that education today is “*collection of facts and knowledge about the external world*” which would help us to earn a living, but what is needed today is what he called “*educare*”. “*Educare involves the deep understanding of the knowledge that springs from within and imparting it to the students.*” Thus education is to help us become a good human being full of good character which is reflected in our words, behavior and conduct in our daily life.

The Human Values Integrated Learning Concept

1. Reception of Stimuli from the Environment

Human beings learn through the process of interaction with the environment. We interact with the outside world through the five senses. Information is received through the eyes, ears, nose, tongue and skin that is through the senses of seeing, hearing, smelling, tasting and touching. If the learner is without these five senses, then information from the environment cannot be transferred to the learner. It is thus necessary to analyze the process of learning using the five senses.

In Figure 3.1, the big circle represents the physical body with all the sense organs. The arrow represents the stimuli received by the sense organs in the physical body. Many brain researchers have explained that the stimuli received through the sensory organs are processed by the brain, and the brain functions like a computer (Klausmeier, cited in Khemmani, 2002). However, even though the brain receives the information from the sensory organs, it does not mean that awareness or understanding will take place automatically. We need to consider the function of the conscious mind as well. The conscious mind is that part of the mind that we are aware of. The awareness

of what we are thinking takes place in the conscious mind. We use the conscious mind to think and make decisions. In order to understand the stimuli from the environment through our sensory organs, we need the conscious mind.

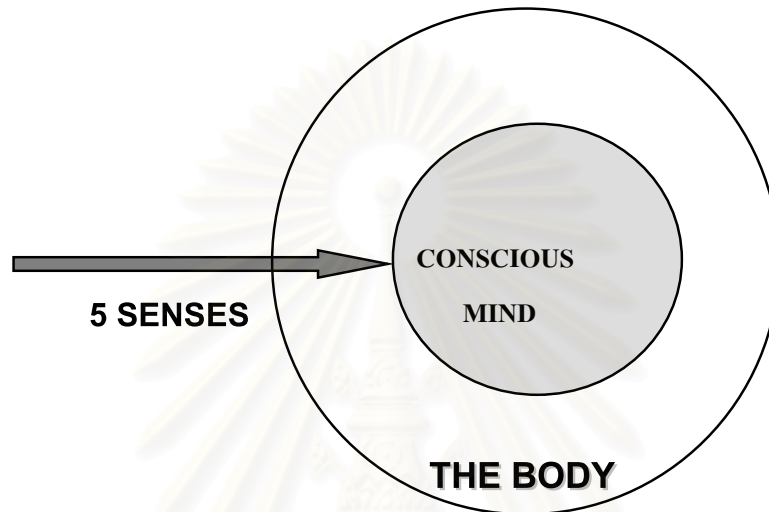


Figure 3.1 The connection between the brain, the five senses and the conscious mind

To understand the working of the conscious mind, let us suppose that the ears receive a sound. Sound is vibration of air or pressure waves in the air. As this vibration enters the ears, it vibrates the eardrums, which then convert the sound to nerve currents that are transmitted to the brain. Although the brain may receive the stimuli from outside, but the awareness may not take place. For example, a learner may be listening to a teacher talking. If however, the learner's mind is wandering in a shopping mall, the learner will not be aware of what the teacher is saying even though the brain has received the signal from the sound. Thus in order to have awareness, the conscious mind must learn to concentrate on the stimuli. Without concentration, the learning process will not take place effectively. Thus the learner must learn to focus their attention on the subject being learnt.

Let us now understand how stimuli received through the five sensory organs are interpreted into meaningful information so that the learning process can take place properly. Let us take for example the eyes and the ears. The stimulus received by the eyes is light. According to science, light is electromagnetic waves consisting of electrical (E) and magnetic (H) fields vibrating at a very high frequency. Since the electrical and magnetic fields are just energy vibrations; to become meaningful there must be some kind of interpretation or decoding so the learning process can take place. Taking the example of a television receiver, information in the form of electrical and magnetic impulses is received by the television. This electromagnetic energy received has no meaning for the viewer until the television translate and interpret the information into picture and sound and transfer them onto the screen and the speakers.

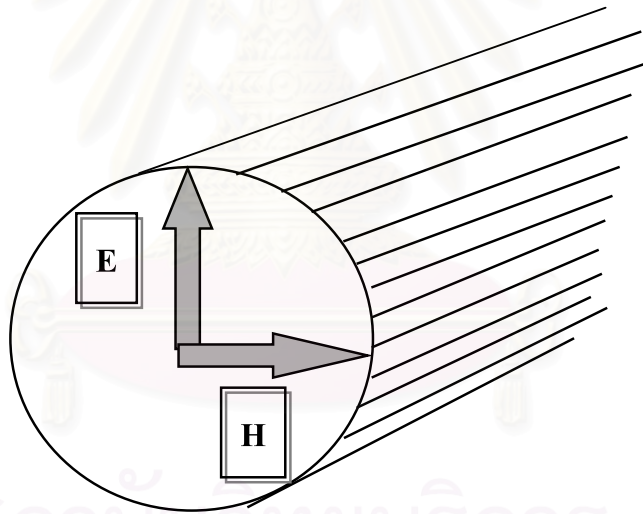


Figure 3.2 A ray of light: Electromagnetic energy

Similarly, the ear receives stimuli in the form of sound, which is vibration of air. They are simply vibrations of molecules of oxygen, nitrogen and carbon dioxide. Thus the important question is how the learner is able to interpret the sound vibrations into something meaningful.

Regarding the processing of the information received, clearly the information coming to our sensory organs are encoded in some way and the learner has to decode the energy so received. Again, many questions arise in the way the decoding is done. With the same stimuli coming to several people, but the understanding is often different. Looking at the same scene, some people may be happy, some may feel sad, some may think that this is good, some may think it is bad. Thus decoding is done in different ways. We need to understand all this to help students learn in the way that will enhance the objective of education and help our teachers to give the most effective training to the students in accordance with the goal desired.

2. Interpretation of Information from the Environment

Information-processing theory has been important in addressing issues related to the learning process. However, it is inadequate in explaining the wide variety of ways the mind functions. The researcher has decided to use the mind concept in order to cover many more functions, which are not covered by brain researches.

The conscious mind was earlier described as that part of the mind where the awareness and understanding take place. But there is also an unconscious part of the mind, which we are not aware of. Because we do not know what the unconscious mind is thinking, it could create a lot of problems for our children. Thus it becomes necessary to understand the unconscious part of our mind and make use of it in the learning and instruction process by the teachers.

The unconscious part of our mind will be divided into two parts in accordance with its function and that is the subconscious mind and the super-conscious mind as shown in Figure 3.3. The subconscious part deals with our memory and the storage of all our past experiences. The super-conscious will be discussed later in this chapter.

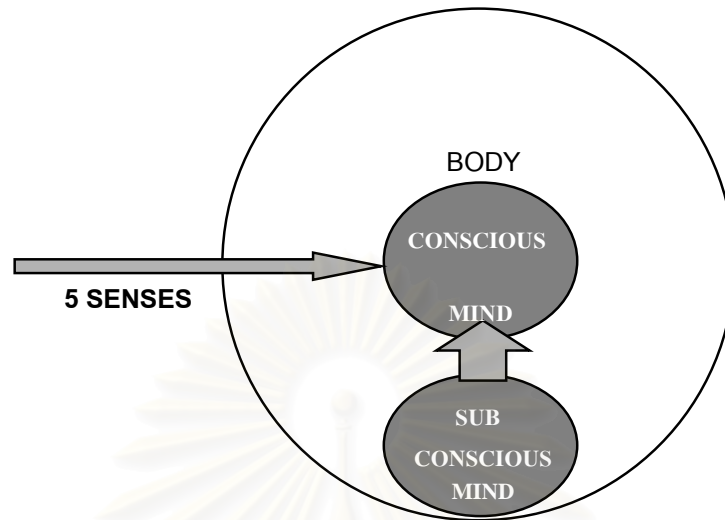


Figure 3.3 The Mind Concept for Information Processing

Whatever has been seen, heard or received through the sensory organs, whatever we have felt emotionally, experienced, thought or done through various actions, and whatever have been our environment in our past, all are stored in our subconscious mind. Casper at the Institute of Child Health and Human Development, Carolina University has shown that even during the time of pregnancy, the emotions of the mother, the type of music listened to, the movies she liked to see and the type of food eaten during the time of pregnancy, all were recorded in the subconscious and would later influence the life of the person after birth (Casper, 1984). Wambach attempted to draw out from the subconscious information recorded in the past through the use of hypnosis and she was able to show that information has been recorded in minute detail in the past and are not discarded from the subconscious contrary to current ideas from information-processing theory that some data are lost from the human memory system (Wambach, 1978).

The subconscious performs function similar to the memory in the computer. It stores data, information, past events, and programs. In addition to an ordinary computer, the subconscious stores feelings and emotions as well. The programs include programs for automatic functions of the body such as the heartbeat, the breathing, the digestion of food etc. A new program can be installed in the

subconscious through various means such as seeing or hearing something repeatedly, saying something verbally or mentally repeatedly, or performing an action repeatedly. Behaviors and attitudes can be changed by the application of a new program installed in the subconscious. Peale wrote a book on the power of positive thinking (Peale, 1989). Whatever we think, so we become. A French medical doctor, Dr. Coue' treated his patients successfully by getting them to repeat: " Day by day, I am getting better and better!"

As earlier explained, light or sound received by the eyes and ears are simply energy and to understand what we hear or see, we need to interpret or decode the energy received. As an example, when the researcher first went to France at the age of 9, he was surrounded by French boys who were curious of foreigners. When they were not able to communicate because the researcher at that time did not understand a word of French, they became angry and started to swear at the researcher. The sound received by the sensory organ was merely vibration of air and the researcher could not interpret the meaning and the result was that he just smiled. One month later, he started to understand the meaning of those swear words and he became angry and started to fight the French boys.

Stimuli received by the sensory organs will not be understood immediately by the conscious mind. The conscious mind needs to search for similar data stored in the subconscious. If a similar pattern to the stimuli exists, then the conscious mind recognizes what has been received. It is now easy to understand why some children react violently to certain stimuli. Let us suppose that as a baby, the parents often quarreled and fought each other in front of the baby. The subconscious recorded these events. The baby has now grown up and everything has been forgotten. Then one day, some one came and started to use abusive language at him. Unconsciously, those stimuli awaken within him the emotions recorded long ago and he became angry and started to quarrel and fight with that person. Parents and teachers need to understand that programming of aggressive behavior of children is done

through watching violent movies and videos, playing video games and computer games as well as the news media reporting on crimes and violence.

It is now becoming clear that in order to promote good character in the child, the desired human values must become an integral part of all subjects taught in the class (National Education Act, B.E. 2542 (1999), Article 24(4)). In this way, human values will become an integral part of the data that are stored in the subconscious. The atmosphere of the school or the school climate should be charged with love and peace (Jareonsettasin, 2000). Teachers should be a model of the desired characteristic in the children. Values and desired characteristic should also be an integral part of all sports and extra-curricular activities.

Good memory is very important in the learning process. Information-processing theory has given us guideline on the short-term memory and the long-term memory. Long-term memory is activated when there is an association or connection with real life situation and experience. In real life, values do not exist alone, nor do other subjects being taught in the school. Thus, instead of teaching as separate subjects, there should be an integration of values and all subjects. Both intra-disciplinary and inter-disciplinary integration are necessary. Children must be interested in what they are learning, so we must employ a variety of teaching techniques. Several learning theories should be used.

Meditation or the art of concentration or simply learning to focus the mind also helps to enhance the memory. An experiment was performed at the Berkeley Campus, University of California on the effect of meditation on memory (Abrams, 1972). It was found that there was a significant increase in memory for those who practice meditation as shown in Figure 3.4

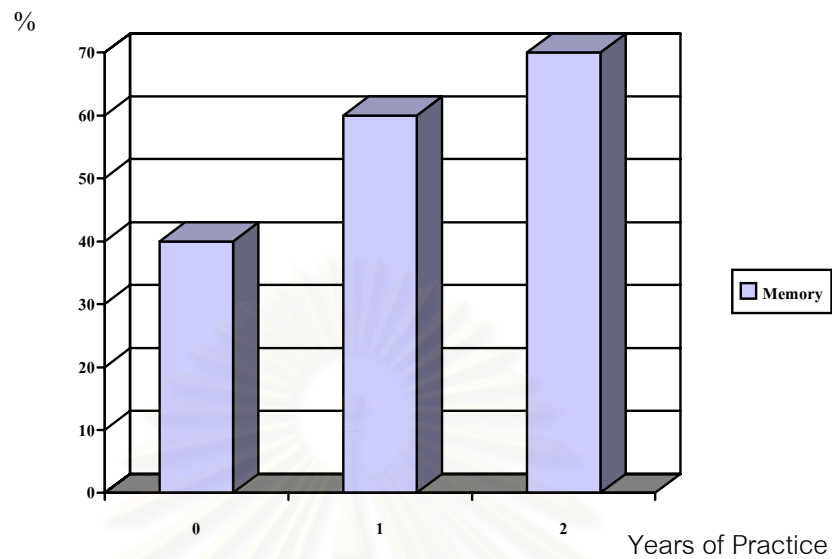


Figure 3.4 The effect of meditation on memory

Source: Abrams, 1972

3. Self Knowledge – Wisdom

As soon as a child is born, the search for knowledge begins. The child wants to find out about his environment by interacting with it. The child does this by touching objects, putting them in the mouth, throwing them around and observing the result. As the child begins to speak, many questions are asked: “What is this? What is that?” It is natural for the child to be curious in order to find out about the environment. Formal education seems to have failed to satisfy this innate desire to learn and on the contrary, have killed the desire to learn. People come out of formal education feeling happy that education has come to an end. However, despite all this, people continue to learn through interaction with society and the environment. They learn as they become employed. They learn through new experiences in their new environment. They learn through making many mistakes in life resulting in suffering. They learn to live together in the family and in society. Learning seems to be never ending and life long process. Is there an end to education? Are there the ultimate knowledge, truth and reality?

Knowledge seems to be infinite. It is like an expanding circle. Outside the circle is the unknown. As the circle grows, the perimeter adjacent to the unknown becomes bigger and bigger. Scientists begin to realize that the more we know, the more we know that we do not know! The most important question in learning is therefore: "Is there something, that when known, everything is known?"

What is truth?

If something is true today, it must be true tomorrow. If it is true tomorrow, it must be true the day after tomorrow. Thus, it must be true 100 years from now or a million years from now and so on ad infinitum. If it is true today, it must have been true yesterday and through the same logic, it must be true millions of years ago and so on ad infinitum.

If something is true here, it must be true over in another place. Thus, if it is true in Thailand, it must be true in United States and all over the world. Logically, truth is the same throughout the universe.

It is now possible to define "truth" as something that is unchanging and "truth" is independent of time and space.

In our search for "truth", we have investigated everything that is around us and discover that all of creation has a beginning and an end. The universe started with a big bang some 15 billion years ago. Now black holes exist in the center of each galaxy and are pulling stars and planets into it and it is expected that finally, the whole universe will collapse and disappear. Thus, the whole universe and everything in it is impermanent and changing and therefore cannot be the "truth" as defined above.

Where can "truth" be found? There is only one place left where we have not looked at and that is the search within. This is the beginning of the search for self knowledge or knowledge about the self or self-realization. Many educators will say that this is not the job of educators but it is for philosophers. But as we will see, there are

many practical applications in education that will help solve problems that we have not found solutions before.

In Figure 3.5, the unconscious mind is divided into two parts – the subconscious and the super-conscious. As already discussed, the subconscious is the sum total of our past experiences. The super-conscious, however, has completely different function.

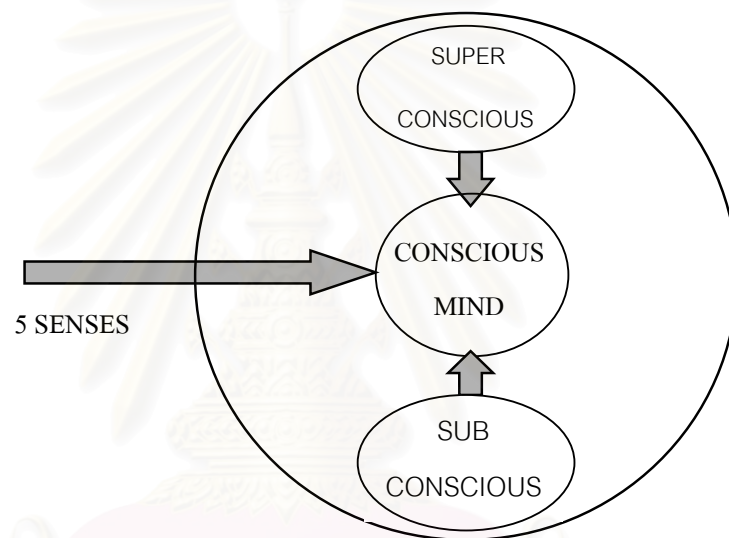


Figure 3.5 The Mind Concept of Learning in details

When we are working at the subconscious level, our actions are based on programs that have been installed there. The animal feelings of survival and procreation are dominant in our actions. Stimuli received by the sensory organs will produce an automatic response, which is based on past experiences. At this stage of evolution, we are very often very emotional with no self-control. But as we evolve and the conscious mind becomes more dominant, we start to ask questions about everything. There is a natural thirst for knowledge. We start to learn from our mistakes realizing that certain actions will create suffering and we try to avoid having to suffer. But as yet we are plagued by emotions that arise from our subconscious in response to certain stimuli

from our environment. From our repeated experiment in life, we learn from experience and observation that certain actions will give us peace and joy.

Human values integrated education for children will quicken this learning process. As teachers help children to fill the subconscious with values, the response from stimuli from the environment will become less emotional and become more peaceful. Children should learn to interpret stimuli received by sensory organs in a positive way. It is important for children to learn to discriminate between good action and bad action. Children should be involved in giving service to others and to society with love and compassion. This type of action based on love and compassion involved by the children is called in this concept the human value of "*right conduct*". It is of great value to the learner as it helps them to find peace in life as they learn greater self control and control of the senses. Since peace is what human beings have always been looking for, "*peace*" is also one of the human values of great importance.

Now it is found that the conscious mind becomes calm, peaceful and does not react emotionally to various stimuli as before. The ability to concentrate is improved and memory is enhanced, as a result there is an improvement in the learning process. Training children in the art of concentration and meditation would speed up the transformation. It is now that the super-conscious starts to come into play. The conscience within the children will start to teach and guide them to act in the right way, to do only what is good for themselves and to others. A new type of learning has started. Knowledge and understanding are gained intuitively without having to use the conscious mind. In fact, the conscious mind needs to be stilled and completely calm for intuition to occur. Many great discoveries in the past have been achieved when the mind is calm. Sir Isaac Newton discovered the law of gravity while sitting quietly under an apple tree when an apple fell down on his head. As a small child, Newton used to sit quietly alone by himself under an apple tree. This became his habit as he grew up. There are many examples of saints and sages in history who have gained wisdom and understanding through practicing prayers, meditation, yoga or other spiritual practices. An example is the Buddha who gained enlightenment sitting under the Bodhi tree in silent meditation.

Jesus Christ spent 30 days in the mountain in the desert overcoming the temptation of the senses and then started His mission of teaching His disciples.

It is not the aim of the researcher to attempt to transform children into Buddhas or saints. But we need to help bring out inner strength and wisdom in the children. Children should have good character and their lives should be filled with human values. Development of the super-conscious will help to bring about wisdom and understanding and the capability to make new discoveries. Self awareness or self realization will mean that children will have the understanding of who they are, why are they on this earth and what is the purpose of their lives. Their lives will therefore becoming more meaningful and useful to the society and to the world. The great human value gained through the development of the super-conscious is the understanding of the "*truth*".

4. The Role of Love and Compassion in the Learning Process

Kessler in her book "The Soul of Education, Helping Students Find Connection, Compassion and Character at School", discusses the need for deep connection that will help to nourish the soul of students. This deep connection is described as profound respect and deep caring in a relationship with one's own self, with others, with the community, with nature or with the world (Kessler, 2000, pp.18-35). Once this deep connection is established, then the behavior of the youth begins to change. The students can take in the world through learning, loving and serving.

Jenkins in her book "The Joyful Child" says: "Joy is the presence of love for self and for others, a state of gratitude and compassion, an awareness of being connected to our higher self and being one with everything" (Jenkins 1996, p.4).

The most important human value is *love and compassion*. For when it is expressed in our actions it becomes the value of *right conduct*. Our behavior will be gentle and full of kindness. There will be consideration for others and self-sacrifice. Our actions will be full of service for humanity. When there is love and compassion in our heart, there can be no violence, anger and hatred, fear, anxiety, jealousy and other negative emotions. Then the human value of *peace* exists in our life and we are full of joy and smile. Life has become meaningful. When love and compassion fills our mind, the mind becomes calm and still which will activate the super-conscious. We are now filled with wisdom and understanding about life. We now understand that we are all brothers and sisters. The ego is destroyed and there is only the feeling of oneness with our fellow human beings as well as nature and the environment. These are the human values of *truth* and *non-violence*, which are the ultimate goal of the Human Values Integrated Learning Concept as displayed in Figure 3.6.

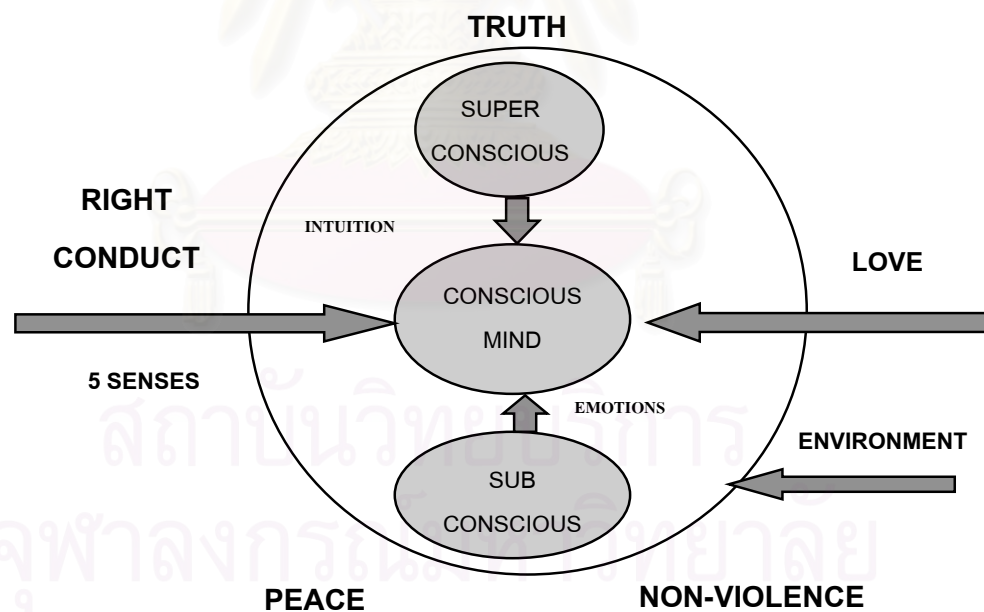


Figure 3.6 The Human Values Integrated Learning Concept

In summary, the five human values are an integral part of the learning process where the aim is the transformation of the learner into a good person and not just a great person. The steps in the learning process are summarized as follows.

The Steps in the Learning Process

Stimuli are received through the five senses. The stimuli have to be interpreted into something meaningful. This is done by retrieving data from the subconscious mind which contains past experiences and memory. The conscious mind then becomes aware and understands the stimuli received. This awareness and understanding is then stored in the subconscious mind and reinforces the memory. In education, the Human Values Integrated Instruction is applied. This requires involvement of friends, teachers, parents and the community as well as the creation of an atmosphere of peace and love in the school. Human values are an integral part of all subjects and all activities in the school. Thus not only subject matters but also human values are stored in the subconscious mind. This will influence future interpretation of outside stimuli received.

A very important part of the Human Values Integrated Instruction is to inspire the learner to transform. This cannot be done through the five senses of the learner alone as can be seen from Figure 3.7 but requires the use of the sixth sense also to inspire the learner. The following discussion is about how a teacher can inspire students so the students can be transformed.

The teacher must be inwardly calm and peaceful. She must be full of love and compassion. She must be an example of the human values that are expected in the learner. She must speak from the heart. She radiates an aura of peace, love and compassion so that others near her will also feel peace and joy.

When a person speaks, only a small part of the total message is transmitted through the speech. The main message is non-verbal and is called the meta-message. It is the way a person looks, the facial expression, the action, the thoughts – all will contribute to the meta-message.

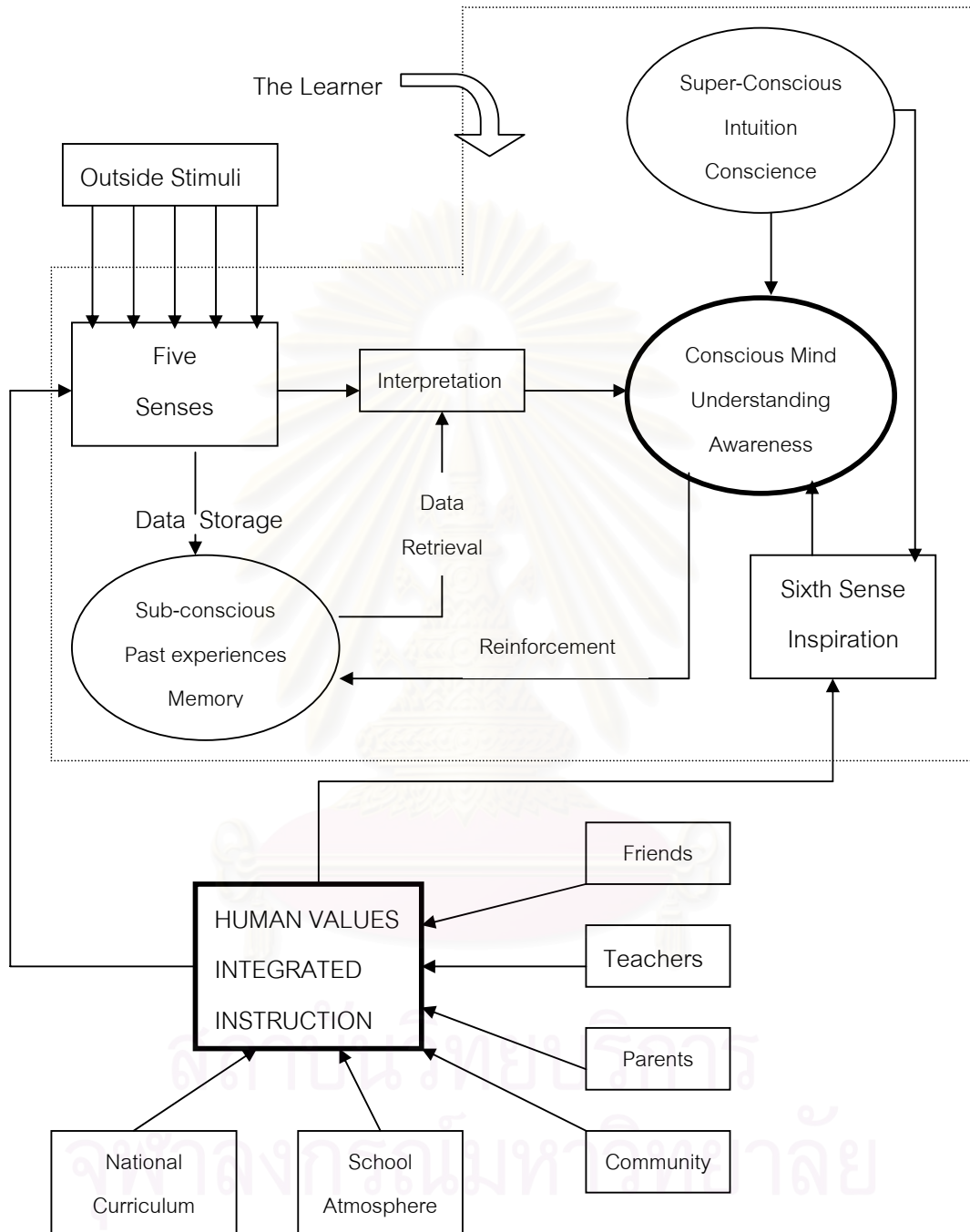


Figure 3.7 Relationship between the Learning Process and Human Values Integrated Instruction

In order to transmit 100% of the message, there must be unity of thought, word and deed. What ever is spoken must coincide with the meta-message expressed through his action and his thoughts. This is especially important in the Human Values Integrated Instruction where there must also be a unity of the head (thought), the heart (conscience) and the hands (action and speech). Whatever thoughts that come to our head or our conscious mind should be examined by our heart which is the super-conscious mind or our conscience before it is put into action include our speech.

Thus when a teacher transmits 100% of the message, she does not only communicate through the five senses of the learner but also through the sixth sense which will touch the heart of the learner and inspire the learner causing the transformation process to take place.

It is to be noted here that when the mind of the learner is calm and still, the conscious mind is raised towards the super-conscious mind and in turn, the super-conscious mind has an effect on the sixth sense and thereby enhance the process of inspiration which bring about a faster transformation of the learner.



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Chapter 4

Research Methodology

1. Introduction

The original concept of human values integrated learning had been intuitively developed and used in training of teachers in Thailand as well as internationally. This concept described in Chapter 3 had been used in the Sathya Sai School in Lopburi province as well as similar schools around the world.

2. Methodology

This study used several research methodologies, i.e.: documentary research, ex post facto research and a quasi-experimental research.

3. Research Procedure

The study consisted of 6 main phases (see Figure1.1, p.6) as follows:

Phase 1 Various Learning and Teaching Theories used in the Development of the Model

The Human Values Integrated Instructional Model was developed from the Human Values Integrated Learning Concept. Various learning theories were studied. Some of the learning and teaching theories that were compatible were then used in the development of the Human Values Integrated Instructional model.

Objective

To find learning and teaching theories that will be useful in the development of the Human Values Integrated Instructional Model.

Research Instruments

Experts were interviewed to get their advice.

Gathering of Data

Literature research was made in libraries, from internet, book shops and personal loan of books from experts.

The following criteria are used in the selection of books/literature to be used in the development of the Human Values Integrated Instructional Model:

- There are no conflicts with the Human Values Integrated Learning Concept. However, certain ideas that are compatible with the concept may be used.
- The learning/teaching theories have room to promote the emergence of human values in the learner.
- These theories must help to bring about human excellence in all areas- physical, mental, emotional and spiritual.

Analysis of Data

The main points to be used in the development of the Human Values Integrated Instructional Model will be extracted from the various learning/teaching theories.

Phase 2 Documentary Research on the Application of the Concept

1) Teacher Training

Between the years 1987 and 2000, many teachers were trained in Thailand on the Human Values Integrated Learning Concept.

Objective

To find out if there was a general approval of the Human Values Integrated Learning Concept amongst teachers and educators.

Research Instrument

Documentary reports on the seminars and training including evaluation forms that are available.

Gathering of Data

Document available were requested from the organizers of the seminars.

Analysis of the Data

Most of the documents and evaluation forms available contained the following information:

- Opinion of the teachers on the training
- Opinion of the teachers on the content of the training
- Whether what they have learnt can be applied in the classroom
- Whether what they have learnt can be used in their own life
- Suggestions for improvement of the seminars

Analysis could then be made to find the percentage of respondents who were positive on the first four statements. Analysis of the suggestions was also made to see what improvement could be made.

2) Study of Sathya Sai Schools in other countries

Documentary research focused on Sathya Sai Schools in other countries where the Human Values Integrated Learning Concept had been put into practice in the classroom.

Objective

To find out whether there was transformation of students, teachers and parents in schools where the learning concept had been applied.

Research Instrument

Documents in the form of reports about the school were used as

instruments for the research.

Gathering of Data

Data of various schools in the form of annual reports were available at the Institute of Sathya Sai Education in Thailand. For some schools, a request was made to submit reports.

Analysis of Data

Information on transformation of students, teachers and parents were extracted from the school reports. Content analysis was made to find out whether there were transformation taken place in students, teachers and parents. Case studies were made. In case of children, actual names were not used as reports contained negative behaviors.

3) Study of literature published in various languages around the world.

Objective

To find out about the general international acceptance of the Human Values Integrated Learning Concept.

Research Instruments

Documents on the Human Values Integrated Learning Concept of the researcher that appeared in various languages in various countries.

Gathering of Data

Documents which were translation of books written by the researcher on the learning concept were located. Papers published on the learning concept were found.

Analysis of Data

Analysis of general acceptance through the use of documents related to the learning concept was made.

Phase 3 Ex Post Facto Research at the Sathya Sai School

Ex post facto research was conducted at the Sathya Sai School where the concept had been applied for over ten years. The following studies were made.

1) Study of all the students at the Sathya Sai School

Objective

a) To establish what changes (emergence of the Human Values) had taken place since the students had joined the school.

b) To find out the factors that had caused the human values to emerge from the students.

Research Instrument

Questions:

1. What changes have taken place since joining the Sathya Sai School?
2. What factors have caused these changes to take place?

Gathering of Data

Students of all grades were asked to analyze themselves to find the changes that had taken place at the Sathya Sai School. This was an open ended question so students might give several different answers. Having established the changes that had taken place, the students were again asked to analyze what factors were the causes that create these changes in themselves.

Analysis of Data

Analysis was made to find the frequency of the changes in the primary

school and the secondary school. The answers were then categorized into the five human values. A guideline of how to sort out the answers into the 5 Human Values is given at the end of this chapter. The research studied the factors involved and their relative importance in the causes that have brought out the human values in the children.

2) Study of teachers at the Sathya Sai School

The same procedure of study that was made with the students was also carried out with the teachers of the Sathya Sai School.

Objective

To establish the changes that had taken place since joining the school and to analyze the causes of such changes.

Research Instruments

Questions:

1. What changes have taken place since joining the Sathya Sai School?
2. What factors have caused these changes to take place?

Gathering of Data

Teachers were asked to write down the answers to the two questions. This was on a voluntary basis.

Analysis of Data

Analysis was made to find the frequency of the changes that had taken place in the teachers. The data was sorted into the 5 human Values using the guideline given at the end of this chapter. Analysis was made on the factors involved and their relative importance in the causes that have brought out the human values in the teachers.

3) Study of former students of the Sathya Sai School

A study was made on ex-students of the Sathya Sai School. Some children had come to study for a period of time and had left and were continuing their studies in other schools.

Objective

To find out whether the human values the former students had obtained from the Sathya Sai School had been retained and what were the effect of the outside environment on these children.

Research Instrument

The research instrument used was questionnaire with open ended answers to establish the human values the students had obtained from the Sathya Sai School.

To study the effects of the new environment on the students, a different type of questionnaire was used where statements were made and students had to chose whether they agreed with the statements.

Gathering of Data

Questionnaires were sent by mail to the former students to solicit answers.

Analysis of Data

Analysis was made to find the frequency of the changes that took place at the Sathya Sai School. The answers were then categorized into the five human values using the same guideline at the end of this chapter. The research studied the factors involved and their relative importance in the causes that have brought out the human values in the student.

From the second questionnaire, analysis was made to study the effect of the new environment on the student's behavior.

4) Study of former students of the Sathya Sai Schools through the parents

Parents were asked to participate in the study of their children who had spent some time at the Sathya Sai School.

Objective

To find out from parents if they felt that their children had benefited from their stay at the Sathya Sai School.

Research Instrument

Questionnaire was used.

Gathering of Data

Questionnaires were sent out by mail to parents.

Analysis of Data

From the answers given, the five Human Values that the children had as a result of the stay in the school were extracted.

5) Study of former adult foreign students of the Institute of Sathya Sai Education

A study was made also on adult teachers who have come from other countries to be trained in the Human Values Integrated Concept.

Objective

To find out whether transformation had taken place during their stay at the Sathya Sai School and to find out the causes of such transformation.

Research Instrument

Self study report in the form of open ended questions

Gathering of Data

The questionnaires were e-mailed to the teachers around the world. Responses were also received through the e-mail.

Analysis of Data

From the response, an analysis was made to see the percentage of the teachers that were transformed. Since this group of teachers consisted of experience teachers, they could give a more vivid description of their transformation. Thus quotes of their answers would give a better picture. An analysis of the causes was also made.

Phase 4 Development of the Human Values Integrated Instructional Model

Based on the studies carried out in the previous phases, the Human Values Integrated Instructional Model will be developed. In developing the model, the objectives must first be clearly defined. In defining the objectives, the Human Values Integrated Learning Concept will be considered as well as the School mission statement. The research on the various learning and teaching theories in phase 1, the documentary research in phase 2, the ex post facto research in phase 3 and the Human Values Integrated Learning Concept are used to define the following in the development of the Human Values Integrated Instructional Model.

(1) objectives

(2) the components involved: principles, roles, and activities

as for example: the school climate or atmosphere, teachers, school administrators, staff of the school, parents and the local community.

(3) the inter-relationship between all the components.

The School Mission is the vision of the school, a clear statement of what the school or institution intends to achieve.

With regards to the understanding of learners/students, as the aim of this instructional model is to bring out human values from every child/student throughout society, there will be children from diverse background. The learners may be rich or

poor. They may come from a good family or a broken family. They may have different cultures and traditions or different religions. The behaviors of the students may be largely different. These differences have to be understood and a variety of different methods of instruction need to be considered. Evaluation of students has to be suitable for the diverse and different background of the students.

Phase 5 Presentation of the Human Values Integrated Instructional Model to Teachers and Educators

The Human Values Integrated Instructional Model was presented to teachers and educators as well as monks/clergies to obtain their feedback on the Model. One-day seminars were given to teachers/educators from various regions of Thailand as well as in some foreign countries.

Objective

To obtain a public approval of the developed Human Values Integrated Instructional Model and feedback from teachers and educators. The feedback would then be used to modify the model as necessary.

Research Instrument

Questionnaires were used (Appendix 1 and 2).

Gathering of Data

Questionnaires were distributed at the end of the seminars and are collected back before the participants left.

Analysis of Data

Details of the background of the participants were obtained, eg. Sex, education, profession. This information was expressed in percentage of the total. Analysis will indicate in terms of percentage of the participants who have understood the model, who can apply this in their classroom, and who will apply this model in their profession and their own life.

Phase 6 Test of the Human Values Integrated Instructional Model on Students

The Human Values Integrated Instructional Model was tested for a period of 10 hours on children and students as follows:

At the basic level of education, a school in the rural area of Lopburi Province.

At the university level, Chulalongkorn University.

- 1) Test of the Model on 2nd year undergraduate at the Faculty of Education, Chulalongkorn University.

Objective

- a) To observe any changes in the attitude or transformation taking place in the student after the treatment of the Instructional Model so as to provide evidence for the effectiveness of the Model.
- b) To find out whether the students have a good understanding of the Model and are able to apply the Model in classes and in their own life.

Research Instrument

Pretest and posttest were used. In both cases, the students were asked to write an answer to a simple question: "What do you want most in your life?"

There was also another questionnaire given at the end of the course (Appendix 1) to see if the students had understood the Model and could apply it in a class and in their life.

Gathering of Data

In the first class, the pretest was made and the students wrote their answers which were collected. In the final class, the posttest was performed together with an additional questionnaire.

Analysis of the Data

The pretest and the posttest were analyzed and quantified into scores using established criteria. The criteria were based on a scale of 0 to 10. A student who desired everything for oneself only will score 0 marks. Top score of 10 was obtained when the student reached a desireless state or complete detachment from the world. For the whole class, an average score was calculated for the pretest and the posttest and the percentage change was taken. This would then give an indication of the change in attitude of the class as a whole.

The other questionnaire given out at the final session was to test their understanding of the Model and to see whether they feel that they are able to apply the Model in classes as well as in their own life. Their answers were converted into scores. Each answer, the student would choose one of the following answers: very much, much, fair, little, or none. This would then be converted into scores of 4, 3, 2, 1, and 0 respectively. Analysis of the class was done by taking the percentage of the maximum score which would then be an indication of the understanding or the ability to apply what they had learnt in classes or in their own life.

2) Test conduct at Anubal Lamnarai School, Chaibadan District, Province of Lopburi.

One of the 5th grade classes was chosen by the school for the test with another class in the same grade chosen to be the control group.

Objective

To observe the behavior of the children in the treated class as compared with the control class. Positive changes in the treated class would indicate the effectiveness of the Model at the primary level of education.

Research instrument

A questionnaire that had been used by teachers and parents at the Sathya Sai School to observe the behaviors of children was used as a research instrument for this test. The questionnaire contains 23 positive statements and 13 negative statements. There were 3 choices for each statement. Score of 0 indicated that the statement was not true at all. Score of 1 indicated that the statement is partially true some of the time. Score of 2 indicated that the statement is true most of the time.

There was a pretest and a posttest using the same questionnaire.

Gathering of Data

At the beginning of the instruction, the class teachers of the treated class and the control class were asked to evaluate the students in their respective classes. The children also evaluated themselves using the same questionnaire. The children were asked to take back home one set of questionnaire for their parents to evaluate. The posttest was carried out in the same way at the final session of the period of instruction.

Analysis of Data

The change in the average score of the children in the treated class was compared with the change in the average score of the children in the control class. This will indicate the changes in the behavior of children in the treated class as compared with the children in the control class. Analysis is given in the form of percentage change.

Measurement of the Five Human Values

As already discussed, the research instruments will consist of questionnaires, observation by parents, teachers and the students themselves. To evaluate the five

human values in the students, observation of the qualities of each of the five values have to be made. The following guideline for the qualities to be observed are adapted from the handbook for teachers written earlier by the researcher (Jumsai, A. and Burrows, L. 1991. pp.129 – 135).

Truth: Speak the truth; see good in all; optimism, curiosity; study harder; learning better; quest for knowledge; creativity; unity of thought, word and deed; search for truth within; detachment; discrimination between what we should and should not do; self-honesty; discrimination between what is real and unreal; good reasoning; careful thinking; self awareness; self-analysis; discrimination between what is right and wrong; independent thinking; oneness; be prepared to accept the truth; planning of life; understanding of the purpose of life; solving problems in life; faith in religion; constant integrated awareness; meditation; self realization; enlightenment..

Right Conduct: Speak only what is good and useful; not indulge in gossip; not indulging in gossip; not speaking ill of others; speak in moderation; speak softly and sweetly; speak politely; not stealing; not breaking a promise; not to quarrel; not killing; honesty and integrity; good manners; good behavior; good attitude; good example; good character; work with responsibility; discipline; work with enthusiasm; determination; work with sincerity; do one's duty to the best of one's ability; only do honest work; being able to take care of oneself; self reliance; deportment; health and hygiene; cleanliness; tidiness; punctuality; courage; know the value of saving; helpfulness; not taking advantage of others; good nutrition; teamwork; friendliness; respect for parents, teachers, elders and benefactors; obedience; understand the danger of harmful habits; regularity; respect for others; humility; responsibility; proper use of free time; proper use of money; abstain from addiction; initiative; how to be a good leader and a good follower; politeness; love in action.

Peace: Think before speaking/doing; not getting angry; forgiveness; control anger; control greed; control of emotions; self control; good effort; good health; promote good habits; contentment; patience; simplicity; self-confidence; more focused; devotion; love for peace; purity; joy; self-sacrifice; broadmindedness; satisfaction; beware of self-

deception; self-respect; silent sitting; calmness; peace; inner contentment or happiness; concentration; better memory; correct rhythmic breathing; introspection; positive thinking; stillness (inner and outer); love for peace; equanimity; bliss.

Love: Speak lovingly; helping others; friendship; kindness; dedication; consideration; gentleness; sympathy and empathy; sharing; giving; unselfishness; generosity; compassion; love for all; concern for others; selfless service; good relationship with others; willing to serve others; love for all living beings; love for humanity; humanism; universal love.

Non-violence: Use good language; speak from the heart; good communications with everyone; understanding person; non-violence; not hurting others; harmony; know the danger of playing with dangerous toys; avoid playing with dangerous things; avoid conflict; discriminate with view to watching television, books, cartoons, and internet; not doing harm to any living thing; respect for public property; tolerance; not wasting money; not wasting electricity/ water; not wasting food; not wasting time; unity; ceiling on desires; appreciate when others are successful; courtesy; democracy; social justice; equality; human rights; patriotism; concern for all life; being a good citizen; sense of social service; sense of social responsibility; appreciation of other cultures; respect for all religions; love of nature; wider world view; see the world in a positive light; brotherhood of man; learning to live with others; cooperation; caring for the environment; environment conservation.

It is to be noted here that sub-values may overlap and appear in more than one of the Human Values depending on the age of the students and the context as for example the word “concentration”. In smaller children, concentration could mean focusing on some activities which could be part of the Human Values of right conduct. However, in older children, concentrating the mind so as to calm the mind, then it is the Human Value of peace. In some students, it could be deep concentration of the mind which could mean meditation, then it will become part of the Human Values of truth.

Chapter 5

Research Evidences Supporting the Development of the Model

In this chapter, Phase 1 to Phase 3 of the research are described. Phase 1 is the study of various learning theories that are compatible with the Human Values Integrated Learning Concept and can be used in the development of the Model. Phase 2 is the documentary research which consists of research on recorded documents on the following: the training of teachers in Thailand on the Human Values Integrated Learning Concept (Section 5.2.1); The transformation of students, teachers and parents in Sathya Sai Schools in other Countries (Section 5.2.2); Teachers from foreign countries trained at the Institute of Sathya Sai Education in Thailand (Section 5.2.3); Literature on the Human Values Integrated Learning Concept derived from the researcher's intuition (5.2.4).

Phase 3 is the ex post facto research conducted on all the present students (Section 5.3.1) and teachers (Section 5.3.2) of the Sathya Sai School. There is also a follow up of former students of the school (Section 5.3.3).

5.1 Phase 1: Study of Various Learning Theories

Sathya Sai Baba, the Chancellor of Sri Sathya Sai Institute of Higher Learning said on many occasions that values cannot be taught, they have to be brought out from within the learner. He has called this "Educare" which is a Latin word meaning to elicit or to bring out from within. He has explained further that values cannot be separated. They are one.

Plato and Aristotle also believed that for the student to learn, the knowledge that is latent in the student has to be brought out from within through some kind of stimulation - for example using the Socratic Method of asking questions to elicit the knowledge

already present within. Although there seems to be a conflict between the belief of Plato and Aristotle, both ideas are used in the development of the Human Values Integrated Instructional Model developed in the next chapter. Plato believed that intelligence is inborn whereas Aristotle believed that intelligence is developed through interaction with the environment. The Model developed in this dissertation used interaction with the environment as a stepping stone towards acquiring of the inner knowledge and wisdom.

In the learning theory of Carl Rogers (Joyce et al. 2000; Khemmani,2002), students are able to develop themselves well with the following conditions:

1) There is an atmosphere of warmth and safety that will support the learning process.

2) Instruction should be based on student centered teaching. Teachers should become facilitator in the learning process rather than transferring knowledge from the teacher to the students. Thus teaching is non-directive but the student becomes more self-directed.

3) Students should know and understand the process learning.

Knowles (Cited in Khemmani, 2002. p.70) suggested that students can learn better if they are active participant in the learning process. He further said that people will learn better if they have freedom to choose what they want to learn in the way they want to learn.

Faire (Cited in Khemmani, 2002. p.71) said that students should have full freedom in learning. Students have the potential and the creativity to do things for themselves.

Illich (Cited in Khemmani, 2002. p.72) stated that education is a life long process and should be a natural process.

Neil (Cited in Khemmani, 2002. p.72) said that if the environment of the learner is full of love and warmth with freedom, the human development will be enhanced not only for the self but also for the society.

Rousseau, Froebel and Pestalozzi (Cited in Khemmani, 2002. p.47) are important thinkers in the theory of Natural Unfoldment. They believed in child centered education. The best place for learning is natural surrounding. Children should have the freedom to play. Direct experience and real situation are necessary in order to learn. Froebel believed that education for pre-school children age 3 – 5 years should have direct experience in learning. Children should learn from the result of their own action.

Gardner's Theory of Multiple Intelligences is very important in planning instruction (Gardner, 1999). Because students may have different intelligences, it becomes necessary to have a variety of activities that will help to promote various types of intelligences in the learner.

Theory of Cooperative or Collaborative Learning (Cited in Khemmani, 2002. p.263) as propagated by Slavin, David Johnson and Roger Johnson will help to promote Human Values in the classroom as it help more positive relationships among students.

These are some of the theories of learning that have an impact on the development from the earlier teaching methodology to the new Human Values Integrated Instructional Model as described in the next chapter. All of the above ideas are used in the development of the Model in this dissertation.

5.2 Phase 2: Documentary Research

5.2.1 Training of Teachers in Thailand on the Human Values Integrated Learning Concept

After the researcher had discovered through intuition the Human Values Integrated Learning Concept in 1987, training of teachers at all levels – pre-school,

primary, secondary and at university levels was carried out all over Thailand to introduce this learning concept. The following is part of documentary research. Simple evaluation forms were used. There were four main questions as shown below:

- 1) What is your general opinion on the training?
- 2) What is your opinion on the content or subject matter of the training?
- 3) After attending the training, do you feel that the knowledge you have gained can be used
 - 3.1 in your own daily life
 - 3.2 in teaching students

Four choices were given in questions 1 and 2: "Very good", "Good", "Fair" and "Need to improve". In questions 3.1 and 3.2, the respondents either agree or not agree. The number of questionnaires answered by teachers found: 7,854

1) The general opinion on the training: 7269 respondents said that it was "Very good" or "Good". This represented 92.6% of all the respondents.

2) The opinion on the content of the training: 7245 respondents said that it was "Very good" or "Good". This represented 92.3% of all the respondents.

3) The knowledge gained from the training can be used in their daily life: 5810 respondents agreed. This represented 74.0% of all respondents.

4) The knowledge gained can be used in teaching students: 6756 respondents agreed. This represented 86.0% of all respondents.

The following suggestions were given by the respondents:

- More time should be given for the training
- Should arrange more of such training
- This should be given to all who are involved in education in the country

- Administrators of schools should receive this training as well
- Parents and the general public should be given this training too
- This training will be useful for students and youths

Conclusion

There was a general approval of the learning concept introduced to teachers and educators with 92.3% of the respondents agreed that the content of the training was “very good” or “good”. Whilst 86.0% of the teachers said that the knowledge they have gained can be used for teaching students. The suggestions given showed the support for more such training and spread to a wider audience.

5.2.2 Transformation of Students, Teachers and Parents in Sathya Sai Schools in other Countries

The following extracts were taken from various reports from Sathya Sai Schools around the world. Note that the real names of children had been withheld as the accounts contain many negative points.

a) Name of School: Unidad Educativa Colegio Valores Humanos

Year of Establishment: 2002

Country: Venezuela

Background of the children in the School: *“Our students come from critical and extreme poverty class; their houses are made from plastic bags, woods and other cheap and free available raw materials. Consider the home conditions of our students they stay all day in the Sathya Sai School, getting all their meals. Additionally the Sathya Sai School covers totally free to their students with all required needs: pencils, formal and sports*

uniforms, shoes, tooth brush, comb, underwear, socks, books, transportation, four meals, free medical insurance and attention.”

Child Case Study 1.

“A” came to the school as a very aggressive child and very destructive with all school material and resources. She spoke using bad language which was not usual for children of her age. With the Human Values Education, she has become a sweet child, more harmonious and collaborative in the school and her home. She has also developed social relationship based on love and mutual respect with her classmates. Today she takes care of her materials and the school as well.

Child Case Study 2

“B” is under the care of her grandmother. She does not see her parents at all. She came to the school after failing twice in her first grade. Her academic performance was very poor. She was 8 years old and her conduct showed very high level of aggression and low self esteem. Frequently she would talk about herself with very poor self concept. Her grandmother was very aggressive with her physically and mentally. Many times, Deborah came to school with bruise marks on her face, back, hands and legs as a result of physical brutal aggression from her relatives. With Human Values Education, she has developed her self esteem and achieved high performance and academic standard. She was promoted to second grade. The school is very proud of her.

Case Study of Teacher Transformation

A teacher wanted to punish a boy because of his behavior in class. The teacher called him to the Director Office to force him to sign an act that would suspend him from the class for one day. The Director made an intervention using Human Values approach. The Director taught the teacher that in the learning process, love, discrimination and self responsibility were more important to be developed in the boy than using punishment. Besides this, the child would not understand the act of signature. By working together, the teacher and the Director, a new approach was started for the teacher.

Transformation of Parents

The School reported that parents are changing because of the transformation that is taking place in their children. The following changes have been recorded:

- Loving care
- Helping their children with homework
- Keeping their children clean
- Taking care of the health of their children
- Regular attendance in school meetings and giving assistance to the school
- Regular attendance with their children at the Sunday Church
- Regular interaction with teachers
- Less aggression to children
- Incorporation of Human Values in their life, improving their social behaviors.

b) Name of School: Sri Sathya Sai Kindergarten

Year of Establishment: 2002

Country: Singapore

Transformation of Students

Attitudinal and behavioral changes are clearly evident in the children from the time they join the kindergarten, to the time of graduation. Having a sense of responsibility, showing love and concern, doing meditation and saying food prayer are some of the comments from the parents. Children with reading disability, discipline and concentration problems have shown improvement and have changed over a period of time.

Child Case Study

In 2003, one of the newly registered children was a boy who was medically diagnosed as mildly autistic. This boy was a challenge to the kindergarten and the teachers. He had self and social problems. He would not communicate with the teachers and other children. He would refused to read, write, talk and do any work.

The teachers and amazingly his classmates in K2 (5 year old) decided to help him and work with him. After a couple of months, his classmates broke barriers and won him over. He started opening up and started learning. Love, perseverance and determination triumphed over all odds- the practice of Human Values changed the boy's life.

Transformation of Teachers

Teachers have shown improvement in practicing values as they have to set an example for the children. Teachers conduct Human values lessons in their respective classes. They lead meditation and prayer sessions. They give the children a lot of love. They discipline the

children yet treat them with respect and understanding. The teachers learn to speak softly and not shout or use harsh words

Transformation of Parents

Parents transform when they see their children transform. They become more supportive and less demanding and aggressive. Parents have requested for workshops and to learn meditation and prayers so that they can practice with their children. They are eager to know more about the Human Values aspect of the curriculum. Some parents have offered to serve as volunteers to the kindergarten even though their children have graduated.

c) Name of School: Sathya Sai School Kisaju

Year of Establishment: 2001

Country: Kenya

Transformation of Students

Once these marginalized students, who come from various backgrounds are admitted into the school, they are taught about the importance of practicing the Five Human Values not only on a personal level but also in interacting with others. It is therefore not surprising that within a short time of admission in this serene atmosphere, a marked transformation in the behavior and attitude of students becomes evident.

Child Case Study 1

“C” joined the school one year ago. He was rude, selfish and lacked discipline and commitment towards his work. Within a year, he

has changed and has started work working hard independently. He has become polite and courteous and has calmed down emotionally.

Child Case Study 2

“D” is another example of a reformed child. Before he joined the school he used to intoxicate himself with beer and cigarettes and was involved sexually with girls. He talks about how Human Values have changed his attitude and behavior. “I have developed love towards all beings as the truth is that we are all one. I do not involve in any unethical deeds since health and self esteem are important components for one’s spiritual growth”.

Transformation of Teachers

The impact of Human Values Education is evident not only in the transformation of students but also in teachers, whose role is vital as facilitators of this program. The teachers are drawn from various ethnic groups and denominations and have responded favorably to this program.

Teacher Case Study 1

The Headmaster made this comment on one of the teachers. *“Mr. Odera’s performance in conducting the Human Values Education program has been outstanding. His attitude and commitment towards his work has changed even more since he met Sathya Sai Baba. He is more obedient, works independently and is reliable. He works tirelessly to ensure students understand the concept being taught to them. He is more devoted than ever before.”*

Teacher Case Study 2

The Headmaster evaluated himself. *“My formal training in Human Values Education program has taught me to inculcate the values into my teaching in*

order to promote a pupil's development process effectively. This program has made me obedient, duty conscious and improved my concentration and respect for others."

Transformation of Parents (Guardian)

Mrs. Wangilu talked about her grandchild. *"I have seen a lot of change in my grandchild, Dean. He is full of responsibility, able to value all those around him, appreciate and be contented. I have peace within me that the boys are in safe hands, protected by God. The school is an oasis of love, unity and has moral molding for the future."*

d) Name of School: Sathya Sai School (Basic Girls)

Year of Establishment: 1997

Country: Zambia

Transformation of Students

Child Case Study 1

"E" joined Sathya Sai School in Grade 1 in 1997. She was a bitter pupil, having just lost both parents. This brought out certain traits, for example, always was involved in arguments/quarrels; frequently crying claiming no one loved her. Character change was noticed in her in Grade 3. She joined the school choir and showed self-confidence and esteem. By grade 5, Joyce showed attributes like being responsible, reliable, friendly and active. This led to her promotion to the Grade 7 class in 2003.

Child Case Study 2

"F" joined the Sathya Sai School in Grade 5 (2001). She was timid and loner (never socialized). Her academic results were usually

weak. After a year and a half, she started to mix with other students. Her academic results started to improve slightly. In Grade 7, she scored the 3rd highest marks in the school (boys included) for the Primary National Examinations. The confidence that she gained through Human Values Education helped her to improve in her academic work.

Child Case Study 3

“G” was a student who would cheat and sometimes steal from her own parents and sometimes even from friends. She is now a reformed Grade 6 student. She has become more honest and has shown regret of her earlier behavior. She no longer steals.

Transformation of Teachers

A number of teachers who have undergone training in Human Values Education at the Sathya Sai School have shown transformation. Bad habits, like the following, have been seen to reduce or completely stop in teachers:

- Beer drinking*
- Vulgar language*
- Rebelliousness*

Lazy teachers have become hard working. Unruly ones have become disciplined and reliable. Punctuality is observed by all teachers.

Transformation of Parents

Parents have been transformed mainly because of the transformation they see in their children. Some parents have reported

that since they brought their children to Sathya Sai School, they are never late for work any more. Others have confessed to being more interested in their child's/children's education and upbringing. It has also helped them to transform (letting go) of certain bad habits because of trying to live up to the characters their children are always talking about. Parents, too, are becoming more responsible, reliable and hardworking in their own right.

Conclusion

From the samples of schools from four countries – Venezuela, Singapore, Kenya and Zambia, it is found that there were cases of students, teachers and parents who were transformed. These schools were established relatively recently between the years 1997 and 2002 and so they have made fast progress. It is to be noted that parents were transformed because of their children who had been transformed.

5.2.3 Teachers from Foreign Countries Trained at the Institute of Sathya Sai Education in Thailand

The institute of Sathya Sai Education was founded in 1997 and many teachers from all over the world had been trained from this Institute on the Human Values Integrated Learning Concept. Two main courses were offered at the Institute, the Diploma Course and the Advance Diploma Course. The Diploma course lasted 2.5 to 5 months and the Advance Diploma lasted for 10 months. Special intensive course of 1.5 months was also given.

These teachers were sent a questionnaire containing the following questions:

1) Did you feel that you were transformed during your stay in Lopburi, Thailand? Please describe the changes that took place in Thailand.

2) If you were transformed, please give us the likely causes that have contributed to this transformation.

3) Have your life been benefited by the experience you have received in Thailand? Please give some details.

On the subject of the Human Values Integrated Learning Concept, the following questions were asked:

1) Do you feel that you have a good understanding of the concept?

2) Are you using this concept in your life, in instruction in classes, or teaching children in the community. Please give some details.

Twenty five teachers from 17 countries responded to the survey. These countries were: Australia, India, Indonesia, Israel, Holland, Japan, Malaysia, Mexico, Morocco, Qatar, Singapore, Spain, Sri Lanka, Sweden, United Kingdom, United States of America, and Venezuela. The result of the survey is as shown below. Where quotes are given, the name of the person will be revealed only if that person has given permission to do so.

Question 1) Did you feel that you were transformed during your stay in Lopburi, Thailand? Please describe the changes that took place in Thailand.

All 25 respondents, 100 %, confirmed that they were transformed.

Quote 1. A lady teacher from India described her transformation.

“My stay in Thailand was one of those wonderful and rare experiences which one is just fortunate to acquire. The blissful and the serene atmosphere of the school and its surroundings was so absorbing and enlightening that the description of it in words would not be sufficient. It was a heavenly experience where a sudden realization

dawned upon me, that I was not just a body but a soul, a soul which was always in search of giving and taking love. It appeared, as if I was always meant for a place like this and as if my true identity had been drawn out of myself.

The meditation sessions in the morning hours would fill me up with positive vibrations which would stay with me for the entire day. I began to evolve as a pure person, who is devoid of all the follies of the world.

My regular introspections made me realize the power of love within, which if unleashed has the capacity to transform this world into a paradise. I slowly began to get immersed in the ocean of divinity.

At the end of one month program I felt a complete transformation come upon me.”

Quote 2: Mrs. Kay Scovill, a teacher at Mt. Shasta Union School District said:

“Living for several months at the Sathya Sai School in Thailand is a purification process. I observed this cleansing process in myself, the other international students, and the students in the school. This purification is extremely important if we are to be an example of good character for the children.”

Quote 3: Mr. Cyrano Ugarow, a youth worker in the United Kingdom said:

“The most noticeable aspect was the development of the desire to help others. Before I had always lived my life with the belief that as long as I did not hurt anyone else it was okay to do what I liked. Now I feel drawn towards helping people in whatever way I can. In addition, I find I am more able to see positive in people and even feel love towards people that I dislike. I have become far more aware of my

thought processes. I am more likely to examine my reactions to something and discriminate whether this reaction is appropriate or not.”

Quote 4: Mr. Joachim Ekstrom came from Sweden. He reported:

“I got motivation and inspiration to go on with my studies to become a teacher. Prior to my stay in Lopburi I felt that the education system was dry and solely academic. I hadn't seen the spiritual part of life being practiced and felt in the educational field before I came to the Sathya Sai School. This absence of values had made me discouraged about getting a degree in teaching. The course in Human Values Education in Lopburi changed that.”

Quote 5: Ms. Lakshmidevi Menon, a teacher from India, said:

“Our stay in Lopburi did transform me to a great extent. I understood the power of love. Love in action was what I experienced over there.”

Quote 6: Mr. Venu Ganji, a teacher from Canada, said:

“After the course and stay on the campus in Lopburi, I am calmer, less emotional and more at peace – I am getting control of myself and am determined to succeed. I am convinced of the need and significance of following the Human Values especially of LOVE in every one's life for betterment of the world of which we are all part.”

Quote 7: Ms. Sonia Ramirez, a teacher from Mexico, said:

“Yes, it was a wonderful experience for me. During my stay in Lopburi, I got to understand the basis of the Human Values program and began to apply it in my life. Before going to Thailand, my attitude was always negative, and after the course, I understood that no matter what your job is, you have to have a good attitude.”

In summary, the transformation and changes that took place in the teachers from overseas after taking the course in Lopburi are as follows:

Right Conduct: Change in behavior, love in action, discipline, duty, determination, good attitude.

Peace: Patience, change in outlook, satisfaction, calmness and peace, self confidence, less anxiety and fear, concentration, more focused, equanimity, relaxed, happy within, contentment, inner joy, bliss.

Love: Compassion, love, love for children, unconditioned love, pure love, desire to help others, giving service.

Truth: Understand the Human Values in life, creativity, believe that enlightenment is possible in this life, ability to sit in meditation anywhere and at anytime, daily practice of meditation, self-awareness, constant integrated awareness, discrimination, a sense of purpose in life, detachment from objective world, oneness.

Non-Violence: Tolerance, understanding, improving communications between humans, speaking from the heart, harmony.

The second question asked was: "If you were transformed, please give us the likely causes that have contributed to this transformation."

Quote 1: Ms. Rachana of Qatar said:

"The harmonious, cooperative efforts observed there, along with the concern shown for our comforts, and more importantly the life lived by my teachers there – these were perfect examples worthy of being emulated."

Quote 2: Ms. Carole Alderman, a teacher from the United Kingdom said:

“The changes were due to the ethos and high level of consciousness built up by constant attention to spiritual values, meditation and prayers.”

Quote 3: Eugenia Quinarque, a teacher from Venezuela, said:

“The environmental context, I felt very impressive with the place where there are the Institute and School. I think it is an excellent framework that facilitates our transformation.

The school: children and teachers were very kind to give and receive our contact. It was not a problem to have different languages.

The lecturers: themes were very appropriate and give me a wide spectrum about my role and work as a teacher. All the lecturers were a good example and give me a necessary inspiration to give my best.”

Quote 4: Ms. Lakshmidēvi Menon, a teacher from India, said:

“The main cause for my transformation was Dr. Art-ong Jumsai . Here was a person who was a teacher, course director, school principal – all rolled into one. Yet he showed by example how to lead our lives. His approach to problem the way they were tackled, the way he interacted with children and adults alike – all these were a real eye opener. He indeed showed us how love into action get results. The other reasons for getting transformed were the great importance given to silent sitting (meditation) and prayers and overall the love and affection shown by staff and students alike. The innocent love shown by the children reveal to me that there is only one language and that is the language of the heart.”

Quote 5: Mr. Venu Gangi from Canada said:

“a) The all-pervasive “pure Love in Action” on the campus is the major reason.

b) The living by example, practical spiritual atmosphere, inspirational approach, unwavering faith and unconditional commitment on the part of every one associated with the institution.”

Quote 6: Ms. Clare Pargeter from the United Kingdom said:

“Daily Light Meditation was perhaps the single most helpful factor. Early morning walks along the river from the Institute to the prayer room set me up for the day. The inspiring talks from all the Institute members, Light on the Path, the guest speakers. The examples of many of the established teachers who gave unreservedly and tirelessly to the school and to the children. The dedication and commitment of the two advanced diploma students who were also classroom teachers. The response from the children: seeing for myself how important it is to be an example to those children, how they take in everything. The opportunity to develop patience and understanding in the classroom and with colleagues. The love that was really palpable.”

Quote 7: Ms. Suma Parahakaran, a teacher from Malaysia, said:

“There were many causes that contributed towards this transformation. Firstly there is the environment. The natural setting and refreshing silence brought about a sense of peace in my mind. There was very little noise amongst the students and the adults compared to the setting in today’s schools in the towns and cities I have been to.

The discipline of daily prayers at fixed times and silent sitting set me thinking how much changes it created within myself. I needed to experience that calmness everyday now so that it could make my work better and view life more positively.”

Question 3: Have your life been benefited by the experience you have received in Thailand? This is a summary of the responses:

- Now practicing meditation daily
- Have become more calm and compassionate to myself and to others
- Spreading love
- Broadened view of what a school should be like
- Learning to speak from the heart
- Built more trust on oneself
- Loving children more than before
- The heart has been opened
- Learning to love everyone
- Learning to be non-judgmental
- Accept everything as experiential learning.
- Inspired to serve others without wanting anything in return
- The beginning of a journey of transformation
- Holistic approach to life.
- The course has widen the horizons in terms of knowledge and techniques
- There is now a purpose, meaning and value in my life
- Have grown in self confidence
- Have become more reflective
- Have become a better person
- Have become a better teacher
- Have gained improved presentation skills
- Have become a more balanced individual
- Have become more amiable and tolerant with my colleagues and children
- My family finds a new joy in interacting with me
- Have learnt to face life more boldly
- Have learnt to care for other's happiness than mine

- Have better understanding of life

Question on the Human Values Integrated Learning Concept

Question 1: Do you feel that you have a good understanding of the concept?

23 (92%) replied that they have understood well the concept. Two (8%) failed to give an answer to this question. But by looking at the transformation that had taken place, they must have received a lot of benefit from coming to Thailand.

Question 2: Are you using this concept in your life, in instruction in classes, or teaching children in the community.

Only one person did not answer this question. The remaining 24 said that they are applying the concept in the following areas:

11 persons (44%) are teaching children

4 persons (16%) are training teachers

3 persons (12%) are teaching in the community

6 persons (16%) are applying it to their own life

Conclusion

Teachers who had come to the Sathya Sai School exhibited a very high degree of transformation as could be seen from their testimony. They became highly motivated to continue work or further their studies to become a good teacher. Most of them were applying the learning concept in teaching children (44%), or in training other teachers (16%), or are teaching in the community (12%) or simply applying the concept in their own life (12%).

5.2.4 Literature on the Human Values Integrated Learning Concept Derived from the Researcher's Intuition

After the discovery of the Human Values Integrated Learning Concept through intuition in 1987, the concept was published by the Sathya Sai Foundation of Thailand in 1991 in the book *Sathya Sai Education in Human Values, Handbook for Teachers* (Jumsai and Burrows, 1991). The full detail of the concept was then written in the book *the Five Human Values and Human Excellence*, published by the Institute of Sathya Sai Education in 1997 (Jumsai, 1997). At the same time, publication in the Thai language was printed. The book was then translated in Portuguese in Brazil, Chinese in Hong Kong, Japanese, Bahasa Indonesia, and Lao. Articles appeared in French, Russian and German.

Kanu referred to this concept as the Jumsai Model (Kanu, 2000). Quoting from his article, Kanu explained:

“The Jumsai Model

Dr. Art-ong Jumsai's:

Super Conscious Mind = Sohar and Marshall's Tertiary psychological process SQ.

Conscious Mind = Freud's Secondary psychological process IQ.

Subconscious Mind = Freud's Primary psychological EQ.

Thus the Jumsai Model is a harmonious synthesis of Freud's and Sohar and Marshall's psychological process (an innovative model).”

It is to be noted here that Freud divided an individual into three parts and these are ID, Ego, and the Super Ego (Kowatrakul, S. 1990). ID is part of the personality that came with the individual before birth and is part of the unconscious mind. The Ego developed from birth from interaction with the surrounding. Whereas the Super Ego developed in the third stage called the “Phallic Stage”. In this stage of development, the standard of behavior is molded from what the father (Oedipus Complex) and mother (Electra Complex) had taught. In the researcher's Human Values Integrated Learning

Concept, the sub-conscious contains Freud's Id, Ego and the Super Ego. However, the Super Ego is also part of the researcher's conscious mind. The super-conscious mind of the researcher is quite different from Freud's Super Ego. The super-conscious mind is the inner knowledge and wisdom which does not come from learning from the outside world. However, Zohar and Marshall described the Spiritual Intelligence as the ultimate intelligence which is closer to the researcher's super-conscious mind.

Conclusion

There has been a wide acceptance of the Human Values Integrated Learning Concept as evident from publications in most major languages appearing in many countries.

5.3 Phase 3: Ex Post Facto Research in the Sathya Sai School

The Sathya Sai School in Thailand was established in 1992 as a model school to demonstrate the use of the Human Values Integrated Learning Concept. Thus the Learning Concept had been used since its conception. Many cases of transformation in the children had been reported both by the teachers and parents. Thus in this phase 3 of the research, the objective is to verify that there were transformation taking place in students and teachers and then to identify the factors that had caused the transformation. These factors will be very important in the development of the Human Values Integrated Instructional Model.

5.3.1 Study of all the students in the Sathya Sai School

All the students in all grades, 286 in number, were asked to write answers to two questions: 1) What changes have taken place since coming to the

Sathya School? 2) What are the factors or causes that have created these changes? No suggestions or examples are given. Students have to think it out themselves. They may give several answers as they may wish.

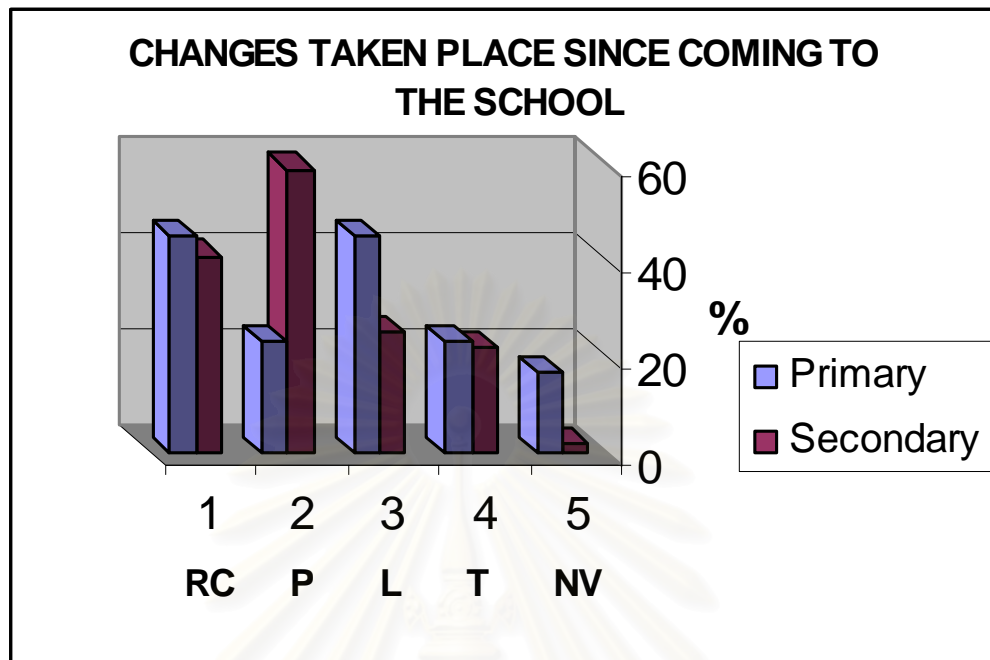
The following table gives the summary of the answers by the students. The answers are grouped into the 5 Human Values. Each number represents the number of students normalized to 100 students so as to enable fair comparison to be made. It is to be noted students may give more than one answer and the total may exceed 100 if each of them give more than one answer for one of the human values. Also it was explained on page 9 of this dissertation that Non-Violence is really a summation of all the values Love, Peace, Truth and Right Conduct. Since the numbers shown were not counted twice, the value of Non-Violence may seem to be non-existent, but if other values are present then the value of Non-Violence also exists. This also applies to any other values as well, as all the values are interconnected and cannot be separated.

To clarify Table 1, an example is given. For example, in Grade 1, 48% of the students (25) reported various values within the main value of Right Conduct. Another way of looking at the figures in the table is to say that for 100 students, there were 48 reportings of the Human values of Right Conduct.

Table 1 Percentage reporting of Human Values classified by Values and Grades

CHANGES THAT HAVE TAKEN PLACE SINCE COMING TO THE SCHOOL																
Human Values	PERCENT OF REPORTING															
	1	2	3	4	5	6	7	8	9	10	11	12	1 to 6	7 to 12	1 to 12	
RIGHT CONDUCT	48	8	37	30	69	66	36	21	62	47	43	50	45	41	43	
PEACE	0	21	22	33	21	31	58	42	52	47	114	75	23	59	37	
LOVE	12	71	52	12	69	54	24	33	14	17	29	50	45	25	27	
TRUTH	12	13	15	12	34	46	30	17	19	24	14	25	23	22	23	
NON-VIOLENCE	28	38	11	12	10	9	0	0	0	0	14	0	17	2	11	
No. of Students	25	24	27	33	29	35	33	24	21	17	14	4	173	113	286	

For details of the values in the above table (Table 1), refer to Table 9 in Appendix 4.



RC=Right Conduct, P=Peace, L=Love, T=Truth, NV=Non-Violence

Figure 5.1 The Changes in behavior and attitude of students

From Table 1, the percentage of reporting of Human Values can be seen for all the grades and Figure 5.1 gives a graphic comparison between the primary classes and the secondary classes. Every student has indicated changes with Human Values emerging from within. However, it is interesting to note the main difference between the primary classes and the secondary classes. The secondary grades had given more reporting of peace whereas the primary grades had given more reporting of love. When the factors that created the changes are studied from Table 2 and comparison between primary grades and secondary grade shown in Figure 5.2, the main factor for the changes for the younger children was the teachers. The teachers for the primary grades gave a lot of love and attention to the children who are clearly affected. Whereas the older students found more peace in their life through prayers and meditation and were more affected by their friends and the environment of the school.

Table 2. Percentage of reporting of causes of change classified by causes and grades

FACTORS THAT HAVE CAUSED THE HUMAN VALUES TO BE BROUGHT OUT																
Causes	Grades															
	Percentage of reporting															
	1	2	3	4	5	6	7	8	9	10	11	12	1 to 6	7 to 12	1 to 12	
Good Teachers	40	13	33	12	24	51	6	32	18	29	29	75	29	23	27	
Prayers & Meditation	12	42	15	18	10	29	24	18		41	57	50	21	34	26	
Friends						37		39	28				8	15	10	
Good Environment	4	4			3	6	15		19	18	21		3	13	7	
Activities in the school		17			3				10	12	29		3	7	5	
Human Values Instruction				3	7	3		14			21	25	2	7	4	
Parents and Family				3		14		7		12			3	4	3	
Listen to good stories			15	3	7		6						4	2	3	
Self knowledge	4		4	3	3	9		2					4	2	3	
People around them							3			12	21		0	7	3	
Vegetarian Food					3		9	7				25	1	5	2	
Discipline & Rules				6				14					1	4	2	
Living together as a family											36		0	4	2	
Helping Friends	8										14		1	2	1	
Desire for knowledge	12												2	0	1	
Good thoughts		8											1	0	1	
Afraid of sins		4											1	0	0	
Help from older students				3									1	0	0	
Learning from mistakes						3							1	0	0	

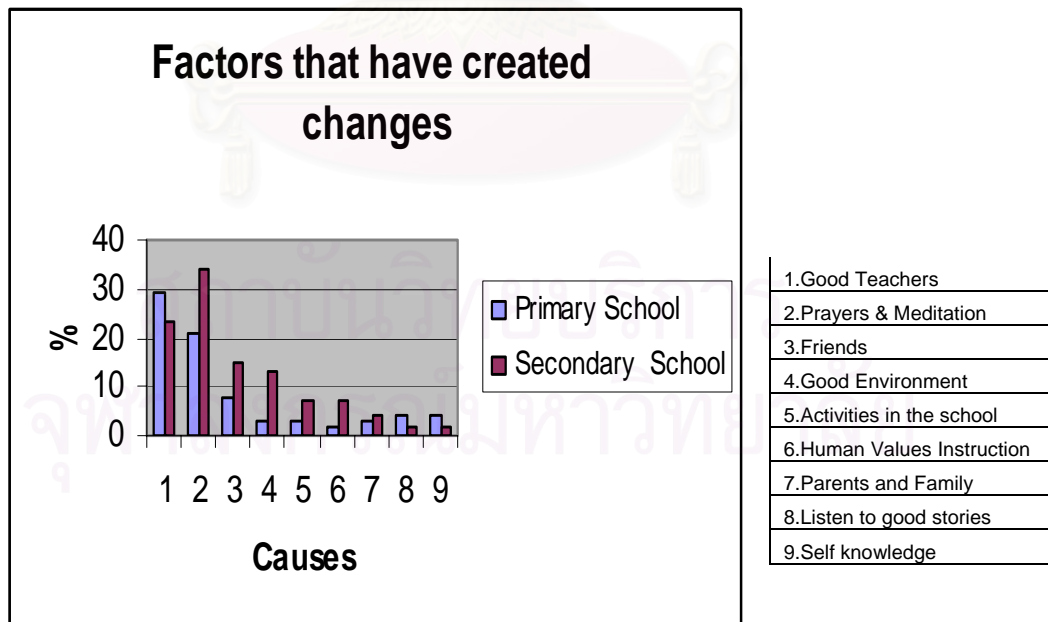


Figure 5.2 Factors that have created changes in the students

When all the students are considered together, we find that the main changes are as follows:

		%
1. Greater peace and calmness of mind	49 students	17.1
2. Greater love and compassion	46 students	16.1
3. Becoming a more responsible person	45 students	15.7
4. Improvement in learning	29 students	10.1
5. Greater ability to concentrate	27 students	9.4
6. Helping others	22 students	7.7
7. Greater effort in learning	20 students	7.0
8. Can get on well with others	17 students	6.0
9. Speak more politely	17 students	6.0
10. Discipline	16 students	5.6
11. Greater self-confidence	15 students	5.2
12. Patience	14 students	4.9

The details of the Human Values are shown below for the primary and secondary schools.

Primary School (grades 1-6)

Secondary School (grades 7-12)

Right Conduct

Speak politely	Work harder
Cleanliness in the classroom	Respect for the rights of others
Self dependence (eg. Washing socks)	Self reliance
More responsible	More responsible
Humility	Becoming leaders
Discipline	Discipline
Learn to save money	Speak politely
Punctuality	
Good manners	
Not taking advantage of others	

Peace

Peaceful	Peaceful
Concentration	Concentration
Calmness	Calmness
Patience	Patience
Think before doing	Good memory
Self confidence	Self confidence
	Self control

Love

Helping others	Love and compassion
Less selfishness	Get on with others better
Loving friends, friendliness	Sharing
Love and compassion	
Get on with others	Love and unity amongst friends
Giving, sharing	

Truth

Telling the truth	Better reasoning
More determination to study	More effort in learning
Improved learning	Improved learning
Understand the process of learning	Realize the purpose of life
Greater faith in Buddhism	Careful thinking
	Planning of life
	Ability to solve problems in life

Non-Violence

Not hurting/killing animals	Unity between friends
Love of trees	Better understanding of others
Awareness of the environment	
Avoid conflicts	

Taking all the students in the school, the main causes for the above changes are as follows:

	%
1. Teachers' influence	27
2. Daily prayers and meditation	26
3. Friends' influence	10
4. The school environment and the atmosphere	7
5. Activities in the school	5
6. Human Values Education	4
7. Parents' influence	3
8. Self-awareness	3
9. Vegetarian diet	3
10. People around them	3
11. Listening to inspirational stories everyday	3

Summary of the study on students of the Sathya Sai School

From the result obtained, all the students have undergone some changes in their lives. The figures in parentheses are the number of students who responded in those particular cases. Many (49) feel that they are more peaceful and their mind have become calm. Many (46) feel that they have more love and compassion in their heart towards their fellow human beings as well as animals. This is shown by the fact that they (22) help others more and they (10) willingly give to others. They (10) will not mistreat

others and they (10) will not hurt animals. The students (45) also feel that they have become a more responsible person. They have greater patience (14) and discipline (16) in their lives. Many (29) feel that their studies have improved. They (27) have greater ability to concentrate and many (20) are making greater effort to study. They (15) have greater self-confidence. They (17) have become more polite in their speech.

The two factors that have influenced the students the most have been clearly shown. Everyday, students (74) pray and practice meditation first thing in the morning and before each class. Teachers (77) have also inspired the students in the transformation process through their teachings and their example. The third factor (35) which is quite significant especially amongst the older students is the influence from their friends. The atmosphere and the environment (19) of the school also have an impact on the students. Students (14) also indicated that various activities in the school create a change in their behavior. Parents can also have an influence on students (10). Self-awareness (10) or the ability to know by themselves the answer to various problems is also an important factor for some students. Vegetarian diet (10) helps some students to feel happy that they are not killing or harming animals. Some students (8) pointed out the important of having regular classes in education in human values which takes place in the first class during the week days. Other students (8) feel that they are affected by all the people around them. Every morning in the prayer room, teachers are relating inspirational stories which students (7) tend to enjoy very much.

5.3.2 Study of Teachers in the Sathya Sai School

Teachers were asked to answer the same questions that was asked of the students, namely

- 1) What changes have taken place since joining the Sathya School ?
- 2) What are the factors or causes that have created these changes?

28 teachers (62%) responded voluntarily. Those that did not write answers to the above questions felt that they did not want others to know. The following is the result of the investigation.

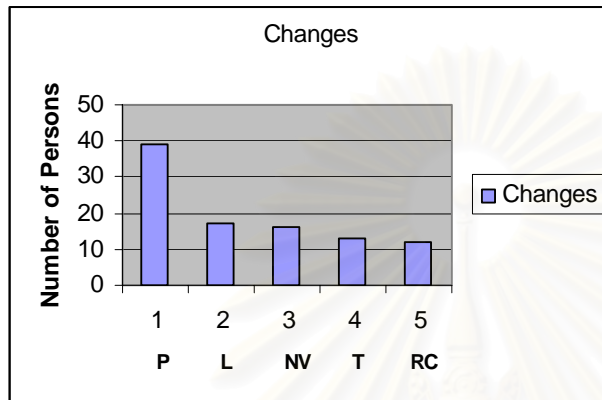


Figure 5.3 Changes that have taken place in the teachers

The changes are summarized below.

Peace: Greater calmness and peace; greater control of the emotions; better concentration in their work; more self-confidence; more forgiveness.

Love: Greater love and compassion; giving service to others.

Non-Violence: Greater feeling of unity in living together; others; wider world-view in a more positive light; save money and spend less.

Truth: Greater understanding of life; seeing more value in life; seeing the good in children and others.

Right Conduct: Greater feeling of responsibility; becoming good examples to others.

The factors or causes that have created the above changes

	Number of teachers	Percentage
1. Prayers and meditation	22	79
2. Influence from other teachers and children	13	46
3. The school atmosphere	11	39
4. The good example of the administrator	9	32
5. Listen to advice/teachings of the administrator	7	25
6. The opportunities given	4	14
7. The teachings of Sathya Sai Baba	3	11

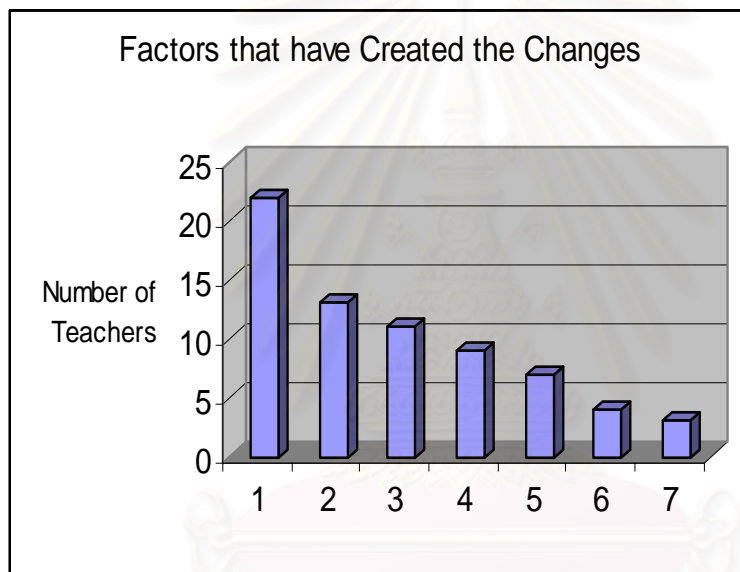


Figure 5.4 Factors that have created the changes in the teachers

Summary

The biggest change that has taken place is the feeling of calmness and greater peace in their lives (75%). Associated with calmness and peace is greater ability to control their emotions (25%). The next change is that their heart is filled with greater love and compassion (46%). This is followed by better understanding of life (32%).

As for the factors or causes of these changes, by far the most important factors are prayers and meditation (79%). An important influence in the changes is from fellow teachers and the love of the children (46%) followed closely by the atmosphere of the school (39%). The good example of the administrator (32%) and advice and teachings of the administrator (25%) are also important factors in the transformation.

5.3.3 Study of Former Students

There are two parts to this study. In the first part, former students wrote the replies and mailed the replies to the researcher directly. The second part consists of independent replies of parents about their children.

a) Replies by Former Students

The population consists of 21 former students of the Sathya Sai School who have studied for at least 3 years in the school. The details are as follows:

Sex: 11 girls (52.4%) and 10 boys (47.6%)

Age: Less than 15 years, 7 persons (33.3%)

15 years and over, 14 persons (66.7%)

Level of study: All of them are still studying.

Primary School, 3 persons (14.3%)

Lower Secondary School, 5 persons (23.81%)

Upper Secondary School, 10 persons (47.6%)

Vocational School, 3 persons (14.3%)

Average stay at the Sathya Sai School, 5.43 years

The details of the respondents are as follows:

Table 3. Details of former students of the Sathya Sai Schools

Sex	Age	Studied at Sathya Sai School		Studying in Grade	Present GPA	Past GPA in Sathya Sai School
		Starting Grade	Final grade			
M	10	1	4	5		
M	11	1	3	5	3.7	3.85
F	12	1	3	7		
M	12	1	4	7	3.4	2.7
M	13	1	3	6	2.1	2.7
F	13	4	6	8		
F	13	4	6	7		
F	15	1	6	9		
F	15	1	6	10	3.125	3.7
F	15	1	6	10	3.66	2.68
M	15	1	9	Vocatonal 1	2.93	2.89
M	15	4	9	10	1.2	2.48
F	15	3	6	10	3.54	3.4
M	16	1	4	10	2.65	
F	16	1	7	Vocatonal 1	2.7	1.9
M	16	1	4	10	1.91	2.86
F	16	1	4	10	2.73	3.05
M	17	1	9	12	2.12	2.71
F	17	1	8	11	3	2.88
F	18	1	9	12	2.14	
F	18	1	9	Vocatonal 3	3.01	2.31

The former students were asked the following questions (more than one answer may be given):

- 1) What is your feeling towards the Sathya Sai School?
- 2) What benefit did you receive from the Sathya Sai School?
- 3) What factors moved you or affected you while studying at the Sathya Sai School?
- 4) Are you continuing with your practice of meditation?
- 5) What is your latest grade point average at your new school?

The students were then asked to assess themselves on 18 statements 9 of which are positive statements and 9 are negative statements. There are three choices – much, some and nothing. The statements are as follows:

1. There is joy and happiness in life.
2. Peaceful person
3. Patience
4. Love and compassion towards others
5. Helping others
6. Love and respect for parents
7. Love and respect for teachers
8. Have adjusted to the new society and surrounding
9. Have new close friends
10. Smoking cigarettes
11. Drinking alcohol
12. Taking illicit drugs
13. Like to spend time outside of the home
14. Like to watch television
15. Like to play computer games
16. Like to spend a lot of money
17. Use of mobile phones
18. Like to go to shopping malls

The following answers were obtained from the survey:

Question 1. What is your feeling towards the Sathya Sai School?

- | | |
|--|-------|
| - They love the school, there is unity in the school | 28.6% |
| - There is warmth like in a big family | 9.52% |

Other responses (4.76%)

- There is sincerity.
- There is good discipline.

- There is good environment conducive to learning.
- There is love amongst the students.
- They feel very joyful whenever they think of the School.
- They feel proud to have the opportunity to study at the School.
- The School is always undergoing development in order to progress.
- The School helps them to know many things outside the classroom.
- Like to comeback and study at the School again.

Suggestions:

- Would like the School to accept day student.
- There should be more teaching aids.
- There should be more emphasis on academic excellence.
- Give students a more worldwide view.

Question 2. What benefit did you receive from the Sathya Sai School?

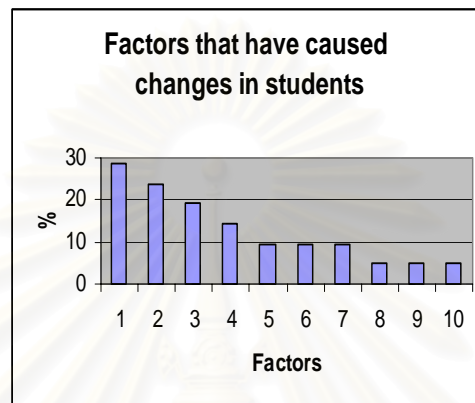
- Meditation which helps them to solve problems. (19.05%)
- There is spirit, helping others, sacrifice. (14.29%)
- Daily prayers and meditation (9.52%)
- Conversation with teachers from foreign countries. (9.52%)
- Calmness and peacefulness. (9.52%)
- Greater responsibility. (9.52%)
- Tolerance (9.52%)
- Morality (9.52%)

Other responses (4.76%)

- Unselfishness
- Learning to live together
- Discipline
- Learning to forgive
- Learning to solve problems by oneself
- Learn to find suitable friends

- Experiencing a life of joy and happiness
- Learning about suitable environment

Question 3. What factors have inspired you or affected you while studying at the Sathya Sai School?



- | | |
|--|---|
| 1. Teachers (28.57%) | 6. Meditation practice (9.25%) |
| 2. The environment (23.81%) | 7. Living together peacefully (9.25%) |
| 3. Various activities of the School (19.05%) | 8. Atmosphere of warmth (4.76%) |
| 4. Friends (14.29%) | 9. Singing value songs everyday (4.76%) |
| 5. Foreign teachers (9.25%) | 10. Trained to be responsible for oneself (4.76%) |

Figure 5.5 Factors that have caused changes in former students

Question 4. Are you continuing with your practice of meditation?

- Practice meditation everyday (9.53%)
- Practice meditation sometimes (61.9%)
- Practice meditation a little (28.57%)
- Never practice - none (0%)

Question 5. What is your latest grade point average at your new school?

- Less than 1.00 (0%)
- 1.00 – 2.00 (9.53%)
- 2.00 – 3.00 (33.33%)
- Above 3.00 (33.33%)

- No response (23.81%)

Self evaluation by former students on the 18 statements are as shown in the table below:

Table 4 Summary of former students' self evaluation

Statement No.		Much		Some		None	
		Number of persons	%	Number of persons	%	Number of persons	%
1	There is joy and happiness in life.	11	52.4	10	47.6	0	0
2	Peaceful person	2	9.5	17	81	2	9.5
3	Patience	8	38.1	13	61.9	0	0
4	Love and compassion towards others	11	52.4	10	47.6	0	0
5	Helping others	13	61.9	8	38.1	0	0
6	Love and respect for parents	16	76.2	5	23.8	0	0
7	Love and respect for teachers	11	52.4	10	47.6	0	0
8	Have adjusted to the new surrounding	18	85.7	3	14.3	0	0
9	Have new close friends	17	81	2	9.5	2	9.5
10	Smoking cigarettes	0	0	0	0	21	100
11	Drinking alcohol	0	0	1	4.8	20	95
12	Taking illicit drugs	0	0	0	0	21	100
13	Like to spend time outside of the home	1	4.8	9	42.9	11	52.4
14	Like to watch television	6	28.6	15	71.4	0	0
15	Like to play computer games	7	33.3	11	52.4	3	14.3
16	Like to spend a lot of money	4	19.9	16	76.2	1	4.8
17	Use of mobile phones	5	23.8	13	61	3	14.3
18	Like to go to shopping malls	2	9.5	18	85.7	1	4.8

The five Human Values of the questionnaires can be grouped as follows:

PEACE: Statements 1 – 3

LOVE: Statements 4 - 7

NON-VIOLENCE: Statement 8

RIGHT CONDUCT: Statement 9

Opposite of RIGHT CONDUCT: Statements 10 – 18

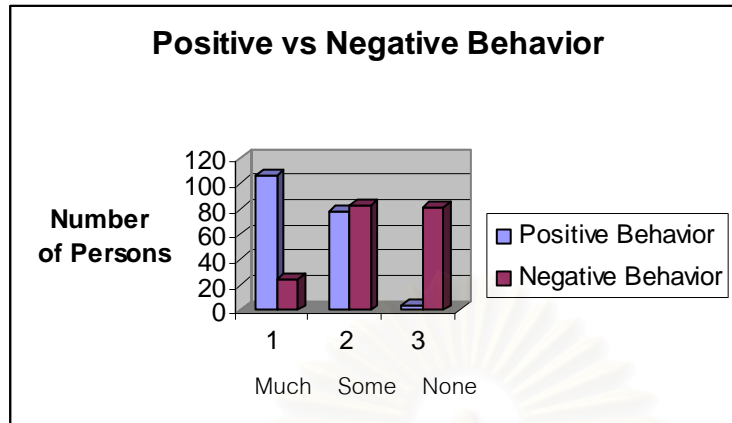


Figure 5.6 Former students who have given indication of their present behavior.

Summary

From the above survey of former students who were at the Sathya Sai School for three or more years, the average time after leaving school is 3.14 years. The majority were able to adapt themselves well to their new surrounding and have retained desirable characteristics. Only 2 students do not have peace and 2 students do not have new close friends.

In meditation practice, 2 students are practicing everyday. 13 students are still practicing some of the times. 6 students practice meditation a little. No one reported that they are not practicing at all.

As far as their present studies are concerned, 16 students replied to the survey. The remaining five said that they have not received the grades at the time of the survey. The average GPA of all the 16 students was 2.74 compared with 2.88 when they were at the Sathya Sai School. There is a decrease of 0.14 or 4.9%.

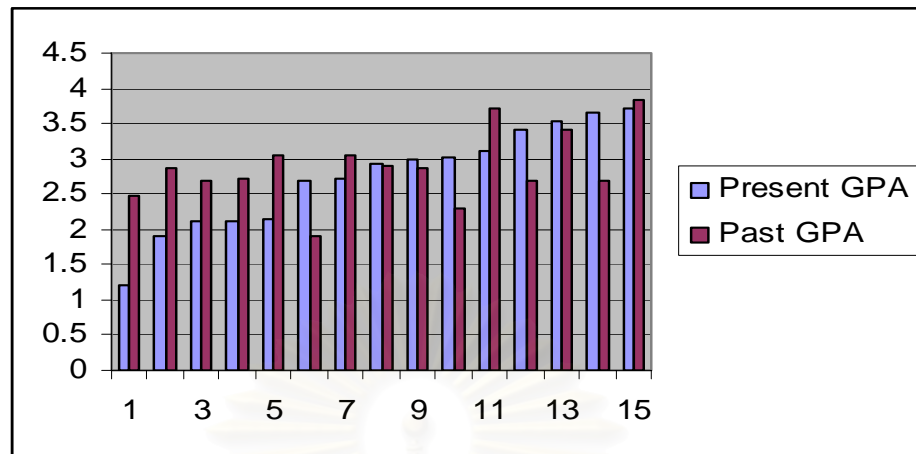


Figure 5.7 Present GPA as compared with past GPA at the Sathya Sai School

As for negative behavior, no students have taken up smoking or drugs and only one student have taken up some drinking of alcohol. The students have become a more so called “Normal” youth – go outside of home, enjoy going to shopping malls, spend money, use cellular phones, watch television and play computer games. But 11 students do not go outside much. Three students do not play computer games. One student does not like to spend money. Three students do not use cellular phones and one student does not frequent shopping malls. However, the majority do not do anything in excess.

In answering the survey, all students have good feelings towards the school. They love the school and they feel proud to have been associated with the school. When they think of the school, they feel a sense of joy and happiness. There is love and unity amongst friends in the school. People are sincere and the environment is very good. There is warmth in the school just like in a big family. Some feel that they would like to come back to study once again.

The benefits derived from the school are many. They have received the spirit of sacrifice and giving service to others. They are calmer and more peaceful. They have become more patient, less selfishness, more forgiving and better disciplined. They have become more responsible and have the ability to solve problems. They have learned to live together with others and have experienced a life of peace.

The factors that have inspired the students and created change in them are many. Teachers are very important as well as the environment in the school. Another important factor is the daily prayer and meditation. Various activities in the school, friends and foreign teachers all contribute to the change.

b) Survey of parents with children who have attended the school for at least three years.

18 parents responded to a questionnaire sent to them. There were no answers given as multiple choices. Parents have to think what answers should be given themselves. Parents may give more than one answer for each question. The questions asked were as follows:

1) What benefit did your child receive from the Sathya Sai School?

2) During the time that your child was attending the school, what made you feel elated and happy?

3) Can your child merge into the new society that he is in now?

4.1) Does the Sathya Sai School have an effect on your child in his/her daily life?

4.2) How did the experience at the Sathya Sai School affect the life of your child?

The responses of the parents are as follows:

1) What benefit did your child receive from the Sathya Sai School?

Right Conduct: Responsible person; honesty and integrity; suitable activities; good behavior; respectful; good character; helping parents in their work; discipline.

Love: Love and compassion; sharing with others and helping others; unselfishness.

Non-Violence: Learning to live with others; see the world in a positive light; full of understanding for others.

Peace: Patience; self-control; equanimity; forgiving.

Truth: Good learner; independent thinking; good reasoning.

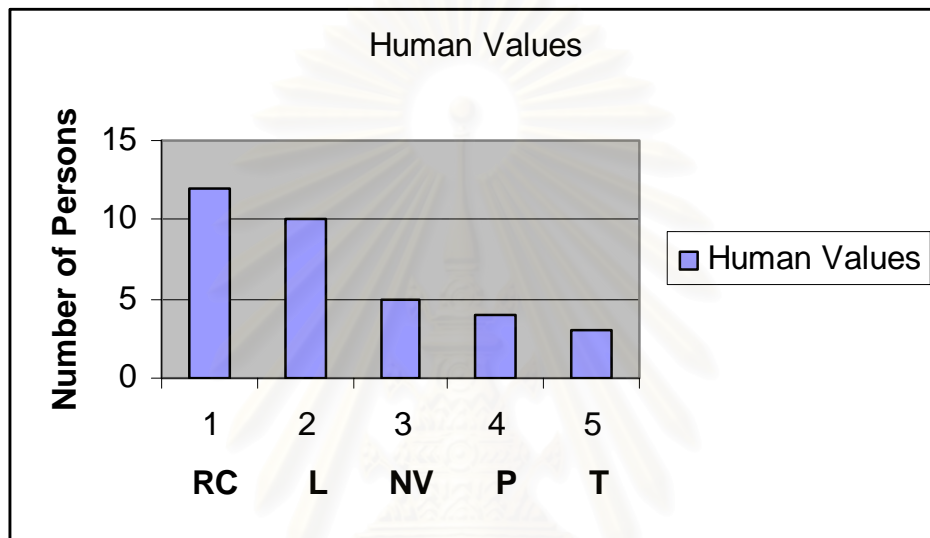


Figure 5.8 Parents' opinion of Human Values found in former students of the Sathya Sai School

2) During the time that your child was attending the school, what made you feel proud and happy?

- Responsible for oneself and the work given (16.7%)
- Meditation (11.1%)
- Teachers giving love and warmth (11.1%)

Other responses (5.6%)

- Promoting children in using their ability in various fields
- Full of understanding for others
- Love and compassion
- Friendly
- Unity

- Self-confidence in speech, thought and action
- Respectful
- Honesty
- Positive thinking, good heart
- Happy child
- Vegetarian food given
- Discipline
- Know the teaching of religion
- Independent thinking
- Understanding of the family
- Good behavior

3) Can your child merge into the new society that he/she is in now?

- Good (94.4%)
- Fair (5.6%)

Other comments

- Too much self-sacrifice and helping friends
- Should have wider world view

4.1) Does the Sathya Sai School have an effect on your child in his/her daily life?

- Yes (88.9%)
- A little (5.6%)
- No (5.6%)

4.2) How did the experience at the Sathya Sai School affect the life of your child?

- Responsible person to himself and in his duty (11.1%)
- Prayers (11.1%)

Other responses (5.6%)

- A good person
- Know merits and sins

- Love and respect for parents
- Good spirit
- Gentleness
- Think only good things
- Ability to discriminate between good and bad
- Helping others
- Listen to others
- Ability to get on with others well
- Good relationship with teachers and friends

Summary

Parents who responded to the survey had shown that their children had benefited from their stay in the Sathya Sai School. Students had exhibited many human values as follows:

Right Conduct : Responsible person, honesty and integrity, discipline, good behavior, good character, helping parents in their work, discipline, respectful, friendliness.

Peace: Patience, forgiving, self control, equanimity, positive thinking, self-confidence, happiness, think only good things.

Truth: Independent thinking, good reasoning, ability to discriminate between good and bad.

Love: Love and compassion, sharing with others and helping others, unselfishness, gentleness.

Non-violence: Learning to live with others, see the world in a positive light, self-sacrifice, full of understanding for others, unity, ability to get on well with others.

88.9% of the parents said that the Sathya Sai School did have an effect on the life of their children and 94.4% said that their children were able to merge into the new society.

Conclusion

The ex post facto research conducted at the Sathya Sai School verified that the students had changed their behaviors since joining the Sathya Sai School. Human Values had appeared in the life of the students. Teachers had also undergone some transformation at the same time. The next step in the ex post facto research was to look back and identify the causes for the changes in behaviors of both students and teachers. The top five factors that caused the changes to take place for the students were: good teachers, prayers and meditation, friends, good environment, and activities in the school. For the teachers, the five main causes were: Prayers and meditation, teachers and the love from the children, the school atmosphere, good example from the administrator, and good advice and teachings from the administrator. For former students, the main causes for the change were: teachers, the environment, activities, friends, meditation and living together peacefully.



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Chapter 6

Development of the Human Values Integrated Instructional Model

6.1 Early Development of the Teaching Methodology

The teaching methodology was developed independently in many countries around the world. The general term used is Sathya Sai Education in Human Values. The name “Sathya Sai” is used to differentiate this methodology from other value based education. Sathya Sai Education in Human Values was developed as a result of inspiration received from the Chancellor of the Sri Sathya Sai Institute of Higher Learning (A deemed university) in India. The name is also used to denote the methodology developed in Sathya Sai Schools. In Thailand, this was put in the book Sathya Sai Education in Human Values, Handbook for Teachers (Jumsai & Burrows, 1991). There were three main methods for teaching Human Values.

- 1) Integration of Human Values in the class.
- 2) Integration of Human Values in extra-curricular activities.
- 3) The Direct Teaching Method.

In accordance with the Human Values Integrated Learning Concept described in chapter 3 of this dissertation, it is necessary to reinforce the sub-conscious mind with Human Values, thus Human Values must be an integral part of all activities both inside and outside the classroom.

The direct teaching approach uses five teaching techniques: prayers, silent sitting (meditation), story telling, group singing and group activities. The following is a typical lesson plan.

Lesson Plan for the Direct Approach

Age Group: Three main age groups, 6 – 9, 10 -12, and 13 – 15.

Value: The teacher must choose one of the five Human Values: Truth,

Right Conduct, Peace, Love, and Non-Violence.

- Sub-Value:* Each lesson will revolve around the particular sub-value. Everything will help to reinforce this value i.e. the story, the song, the activities etc.
- Objective:* Teachers must be very clear as to the objective of their class - what they expect the children to imbibe.
- Teaching Aids:* To make the class more interesting and more fun, teachers should prepare some teaching aids.

THE LESSON

- Prayers:* In countries where prayers are well accepted, traditional prayers may be used. Instead of prayers, the following may be used: quotations, positive affirmation, poems or some elevating and positive thought of the day.
- Silent Sitting:* The Light Meditation is generally used. Alternatively, simple relaxation exercise or visual imagery may be used.
- Story:* The story should illustrate the value or sub-value.
- Group Singing:* The song should contain the same value as in the story.
- Group Activities:* The teacher should use various activities and teaching techniques such as game, role-play, group discussion, debates, dramas, arts, etc. to enhance the value being taught.
- Evaluation:* This is really a test to determine how well the teacher has succeeded in getting the children to absorb the values.
- Homework:* Some simple task to perform at home or at school during the week that relates to the value that has been taught. The children should report to the class on the following week as to how successful they have been.
- Closing Minute of Silence:* The children should sit silently together at the end of each class and send out loving thoughts to the entire world or to pray for world peace.

Since 1984, the researcher has been giving seminars and training to teachers on the above both in Thailand and in many countries abroad and they have been well accepted. After the discovery of the Human Values Integrated Learning Concept in 1987, the concept has been included as part of the training (See phase two of the research – documentary research in this chapter).

Using the above techniques, it is found that teachers are happy and children are also happy. Above all, children are found to be transformed and exhibit more Human Values. Sathya Sai Education in Human Values was found to be very successful and the above techniques are used at the present time in many countries of the world.

However, there are limitations which need to be addressed. This dissertation aims to produce an Instructional Model that is universal in character and can be applied at all levels of education, from pre-school through primary, secondary all the way to tertiary education in universities. The Human Values Integrated Learning Concept described in Chapter 3 of this dissertation is already universal and it is applicable to people of all ages, all races and nationalities, all cultures and traditions, and all religions.

Discussion of limitations to the way Human Values had been taught

The direct approach has been used for children between ages 6 to 15 years mostly on Saturdays or Sundays similar to a Sunday School. Lesson plans have been developed for use by teachers for the age groups of 6 - 9, 10 -12 and 13 – 15 years. It has been found that children in the age group 13 – 15 years are getting bored and are not so interested in learning in this way. There is also a definite need for Human Values for youth of the age of 16 years and more as well as pre-school children of ages 3 - 5 years.

Up to now, teachers have been teaching Human Values as a separate subject. Human values are even being subdivided in to 5 separate human values and are taught separately. Teachers are deciding what has to be taught so that it is a teacher centered education. Lessons are very often unrelated to real life situation and children may remember what has been taught but may not be able to apply it to their own life.

From the above limitations, there is a definite need for an improved model of instruction.

6.2 Implication of the Research in Phases 1 – 3 in the Development of the Human Values Integrated Instructional Model

Phase 1 The various learning theories have indicated the following points:

- Educare: Values cannot be taught. They have to be brought out.
- Some kind of stimulation is required to bring out the values.
- Socratic Method of asking questions to elicit knowledge already present within.
- There must be an atmosphere of warmth and safety.
- There must be an atmosphere of love.
- Instruction should be based on student centered teaching.
- Non-directive teaching and students become more self-directed.
- Students should know and understand the process of learning.
- Students should be active participants in the learning process
- Freedom in learning
- Learning should be a natural process.
- Use natural surrounding as a place of learning
- Direct experience and real situation are necessary in order to learn.
- Variety of activities is necessary to promote various types of intelligences in the learner.
- Collaborative learning will bring about a more positive relationships among students

Phase 2 Documentary Research

Quality of a good teacher came out of Phase 2 as follows:

- Be a good example
- Practice meditation daily
- Be calm and peaceful
- Love children and spread love everywhere
- Learn to speak from the heart
- Be a teacher who inspires others
- Human Values Integrated Learning Concept is an essential part of the Model

Phase 3 Ex post facto research

The following factors will help in the transformation of the learners:

- Good inspiring teachers
- Daily prayers and meditation
- Good friends, good company
- Good environment
- Good atmosphere (love and peace)
- Good activities
- Parents have an important part in the learning process of their children.
- Good leadership
- Give selfless service

All the above points should be incorporated in the development of the Human Values Integrated Instructional model.

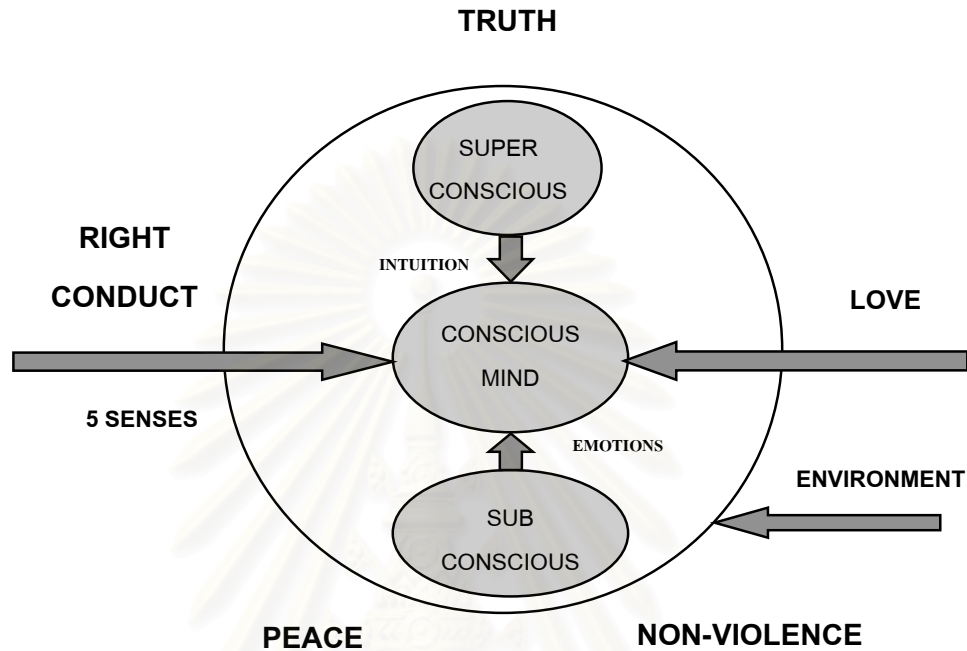


Figure 6.1 The Human Values Integrated Learning Concept

6.3 The Human Values Integrated Instructional Model

6.3.1 Theory and Concept

The Human Values Integrated Instructional Model in this dissertation is based on the Human Values Integrated Learning Concept as shown in Figure 6.1 and as described in Chapter 3 of this dissertation. The concept evolved through intuition by the researcher. The steps involved in the learning process are as follows:

- a) Interaction with the Environment

Stimuli are received from the environment through the five senses and are stored in the subconscious mind. The learner will therefore have to understand

the five senses and how to make proper uses of them. The learner will also have to have proper control of the five senses in order to be able to use them for the learning process.

b) Interpretation

In order to understand the meaning of the stimuli received through the 5 senses, it is necessary to decode or interpret the meaning of the stimuli. This is done automatically by retrieving data from the subconscious mind which is the seat of the memory. The data had been stored there through various experiences in the past. The decoding is done by comparing the retrieved data and the stimuli received through the five senses.

c) Understanding

The awareness takes place in the conscious mind. When the decoded signals are received by the conscious mind then understanding occurs.

d) Reinforcement

Whatever has been understood in the conscious mind is then stored back in the subconscious mind and therefore it becomes a reinforcement to the data already stored in the subconscious mind. This will help in future interpretation of stimuli received through the five senses.

e) Modification of Understanding through the Sixth Sense

The conscious mind may receive information through the sixth sense at the same time as receiving stimuli through the five senses. For example, spoken words are received as stimuli through the five senses and are interpreted as described in step (b). However, the sixth sense may detect the thoughts of the speaker which may conflict with the spoken words. The listener may feel that the speaker does not mean what he/she had said and may even sense a different meaning. This feeling will therefore modify the understanding of the stimuli received through the five senses.

f) Modification of Understanding - Discrimination

The conscious mind has the capability to think critically and to discriminate. The learner should always ask questions before acting on any impulses received through the five senses such as:

i) Is what I am going to do good for me?

The criteria for being good for a person could be that there is greater peace and joy in life. If the answer is positive, then another question should be asked.

ii) Is what I am going to do also good for everyone?

The same criteria should be used whether the proposed action will create peace and joy for others.

If the answers to both the questions are in the affirmative, then the learner can proceed safely with the proposed action. If the answer is negative for any one of the two questions, then the proposed action should not be carried out. The above process of thinking is what is called discrimination.

g) Intuition and Conscience – The Super-Conscious Mind.

By raising the conscious mind higher through prayers and meditation, it is possible to contact the super-conscious mind. The super-conscious mind will then be able to give knowledge and wisdom through intuition or flash of illumination. Intuition is above thought processes. The mind has to be completely calm without any thought, then intuition can take place. There seems to be no limit to the type of knowledge available through intuition. Intuition can give scientific knowledge as well as spiritual knowledge. Intuition is not limited by time or space. Thus the past, the present and the future can be known through intuition. At the same time, knowledge can be obtained about the universe or the inside of an atom.

The conscience also comes from the super-conscious mind whereby the conscience will dictate what the correct action to take. The conscience will also inform the person what is good. There is no thought or discrimination required. The person simply knows.

At this stage, the learner becomes his/her own teacher. It is the highest form of learning possible. The learning goes beyond books, internet, teachers or other sources of knowledge.

6.3.2 Principle

There are two types of education. One type is worldly education and the second type is what is referred to as "Educare". Education will equip a person with knowledge that will enable him/her to earn a living. Education can help that person to become great with name and fame. But Educare will bring out the latent Human Values from within and will transform the person into a good person with character. Education is related to educating the head whereas Educare is related to education of the Heart. Both education and Educare are necessary. The Human Values Integrated Learning Concept starts with the interaction with the environment. This is essentially education. Students have to study mathematics, sciences, languages, and other subjects so as to prepare themselves for their careers in life. But at the same time, Human Values are integrated into all subjects so as to bring about peace and calmness of the mind which will prepare the learner for the journey within and that is Educare. When the conscious mind is raised towards the super-conscious mind, then knowledge and wisdom will be drawn out from within.

The following is the basic principle of the Human Values Integrated Instruction.

i) Human Values are an integral part of all subjects and all activities in the school and in the home. In fact Human Values are an integral part of our life.

ii) The five Human Values of Truth, Right Conduct, Peace, Love and Non-violence are one. They cannot be separated. If one value disappears, then all the values will disappear. For example, if there is no Love and compassion then the person does not think of others first but has become more self-centered. Thus Right Conduct will disappear. The person will not feel Peace when there is no Love. When there is no Peace, the consciousness cannot be raised to the super-consciousness and so Truth will disappear. Without Peace, Love, Truth and Right Conduct then there will be violence.

iii) Human Values cannot be taught, they have to be brought out from within the learner. It has been a mistake in the past, where teachers have been teaching morality, ethics, values, good character etc. as subjects. Learners can memorize them and can pass examinations, but they fail to put them into practice in their daily life. There seems to be a general decline in morality throughout the world. Transformation of the person cannot take place by mere teaching, but can be achieved through self-realization when the values come out from within the learner. In such cases, there is a direct experience of the Human Values in the life of the learner.

iv) In real life, everything is inter-related (Khemmani, 2002. p.145). Thus a good learning experience is to have an integrated approach. In our daily life, we do not just have one value throughout the day. For example, Right Conduct cannot be there alone but it is found that all the five Human Values are inter-related and exist at the same time. Thus it would be a mistake to teach one value at a time. In the same way, mathematics should not be taught as a separate subject as in real life, mathematics exist along side all the subjects.

v) Human Values Integrated Instruction gives the learner the ability to solve problems from various perspectives by giving varied inter-related experiences.

vi) Human Values integrated instruction opens up a wider world view for both the teacher and learner making the learning process much more interesting.

6.3.3 Objectives of the Human Values Integrated Instructional Model

The objectives of the human Values Integrated Instructional Model is:

To help the learner to achieve human excellence not only in the physical and mental dimensions but also the spiritual dimension. The learner will have good character and have the human values of truth, right conduct, peace, love and non-violence.

It is to be noted that objectives in education should be of a very high level. With high objectives, even though the school should obtain 50% of the objectives, the achievement is still high. There is also plenty of room for further improvement. But with low level objectives, the school may obtain 90% of the objectives but it is still at a low level.

The objectives written in the first paragraph can be restated as: to help the learner to become a person with an integrated personality. In the Advanced Learner's Dictionary of Current English (Hornby, 1968), the meaning of integrated personality is *a person whose physical, mental, and emotional components fit together well (so that his behaviour is normal, etc.)*. However, this definition is not yet the definition for a whole (complete) person as it lacks the spiritual dimension. In the above definition, it means that there should be a unity of thought, words and deed. To make a whole person, it is important to have unity or harmony of the 3 H's, that is, **Head** (thought as well as emotions), **Heart** (spiritual aspect) and **Hands** (actions as well as speech).

The objectives of the Human Values Integrated Instructional Model can be explained further by using the spelling of the word EDUCATION (SAI 2000 p.82).

E stands for Enlightenment. This is the process of gaining understanding from within through the raising of the consciousness towards the super-conscious mind. This will give rise to intuition, wisdom and understanding.

D stands for Duty and Devotion. Education should make the learner aware of the duty in life. Apart from the duty towards parents and family, students have a duty based on love and compassion to serve and help everyone in society and in the world. Students should devote themselves to these duties.

U stands for Understanding. This is not just understanding of the subjects as given in the national curriculum, but it is important to understand oneself. Philosophers of the past have always urged everyone "Man, know thyself!" It is through the understanding of oneself that we can understand others and have the ability to live in peace and harmony with others.

C stands for Character. Teachers should mould good character in the students. A person of character is a person who has great moral strength and who has the five human values as part of his life. The human values should be an integral part of instruction in the class.

A stands for Action. Students study hard and pour out all the knowledge from the study in the examination room and come out empty headed. The knowledge, they have gained are not put into action. Such education is useless. Whatever students have learned should be put into practice. Good instructional model should make a connection between what is learned and real life situation. This will enable students to apply the knowledge gained to their own life.

T stands for Thanking. Students should learn to be grateful to those who have helped them. Above all are the parents who have given birth to them and have taken care of them. Students should love and respect their parents. Teachers are next in importance, for students have gained knowledge and wisdom through the teachers. Students therefore should love and respect teachers. Similarly, students have gained so much from society, from the nation and from the world as well as nature. Students should always be thankful to all things.

I stands for Integrity. Integrity is the quality of being honest and upright in character (Hornby 1968). Students should grow into a person of integrity who are people whom we can trust to become leaders in their chosen fields.

O stands for Oneness. Education should get rid of the feeling of separateness and bring about the feeling of oneness with all things. Education should help students to see unity in diversity. Whether we may have different religions or faiths, whether we have different colour skins, we are all part of the same race of humanity. We should learn to live in peace and harmony with all. We are also part of nature, whatever we do will affect our environment. Thus students should learn to live in harmony with nature as well.

N stands for Nobility. Nobility is the quality of having high character (Hornby 1968). Nobility does not come from birth but comes from education. Thus nobility consists of all the values as described above.

6.3.4 The Framework of the Human Values Integrated Instructional Model

Figure 6.2 shows the interrelationship between the school with its classroom and the community as well as various external influences from the outside world. In order for the students to learn well, the whole classroom has to be a learning classroom. That also means that the whole school has to be a learning school as well as all those who are involved with the school will also be learning with the school. Parents, local businesses, people inside and outside the walls of the school are all involved in the learning process of the school (Senge, 2000).

a) The Outside World

The Human Values Integrated Instructional Model in this dissertation is flexible in that it can be adapted to the local laws, culture and tradition of each country. As for example, the National Education Act of Thailand is used in the development of the

Model in this dissertation and is found to be quite compatible. The relevant sections of the law are quoted below.

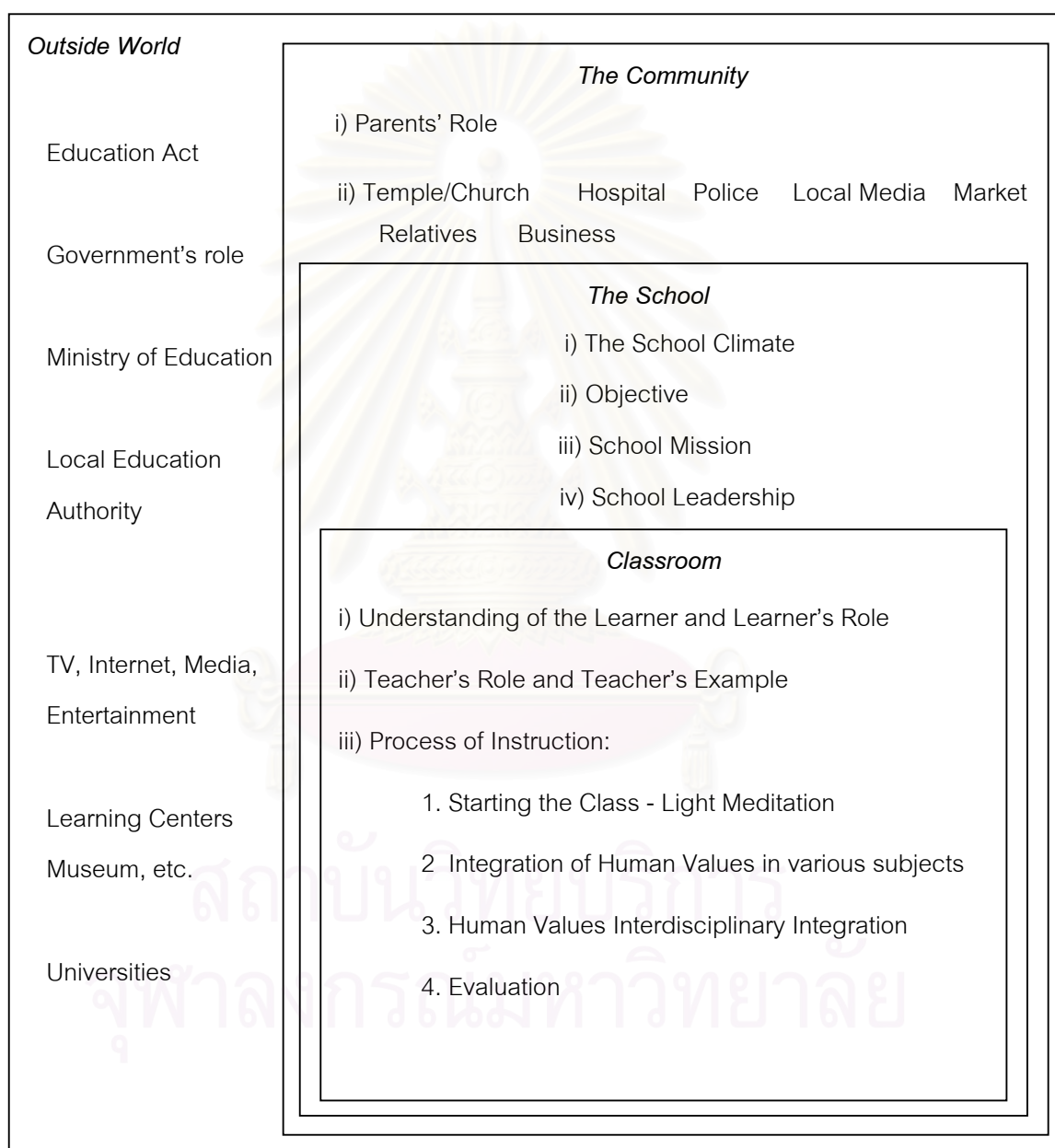


Figure 6.2 Context of Learning and Instruction in School

i) Education Act

In case of Thailand, the Parliament has passed an educational law which is the National Education Act B.E. 2542 (1999) with some amendments (Second national Education Act B.E. 2545 (2002). Certain sections of the law will be quoted as it has relevance in the development of the Human Values Integrated Instructional Model.

Section 6 Education shall aim at the full development of the Thai people in all aspects: physical and mental health; intellect; knowledge; morality; integrity; and desirable way of life so as to be able to live in harmony with other people.

Section 8 Educational provision shall be based on the following principles:

(1) Lifelong education for all;

(2) All segments of society participating in the provision of education;

(3) Continuous development of the bodies of knowledge and learning processes.

Section 9

(4) Raising the professional standards of teachers, faculty staff, and educational personnel, who shall be developed on a continuous basis;

(9) Partnerships with individuals, families, communities, community organizations, local administration organizations, private persons, private organizations, professional bodies, religious institutions, enterprises, and other social institutions.

Section 22 Education shall be based on the principal that all learners are capable of learning and self-development, and are regarded as being most important. The teaching-learning process shall aim at enabling the learners to develop themselves at their own pace and to the best of their potentiality.

Section 23 Education through formal, non-formal, and informal approaches shall give emphases to knowledge, morality, learning process, and integration of the following, depending on the appropriateness of each level of education:

(1) Knowledge about oneself and the relationship between oneself and society..

(2) Scientific and technical knowledge and skills,.....

(3) Knowledge about religion, art, culture, sports, Thai wisdom and the application of Thai wisdom;

(4) Knowledge and skills in mathematics and languages, with emphasis on proper use of the Thai language;

(5) Knowledge and skills in pursuing one's career and capability of leading a happy life.

Section 24 In organizing the learning process, educational institutions and agencies concerned shall:

(1) provide substance and arrange activities in line with the learners' interest and aptitudes, bearing in mind individual differences;

(2) provide training in thinking process,...

(3) organize activities for learners to draw from authentic experience;..

(4) *achieve in all subjects, a balanced integration of subject matter, integrity, values, and desirable attributes;*

(5) *enable instructors to create the ambiance, environment, instructional media,*

and facilities for learners to learn and be all-round persons, able to benefit from research

as part of the learning process.....

(6) *enable individuals to learn at all times and in all places.....*

Section 26 Educational institutions shall assess learners' performance through observation of their development; personal conduct; learning behavior; participation in activities and results of the tests accompanying the teaching-learning process commensurate with the different levels and types of education.

Educational institutions shall use a variety of methods for providing opportunities for further education and shall also take into consideration results of the assessment of the learners' performance referred to in the first paragraph.

Section 29 Educational institutions in co-operation with individuals, families, communities, communities organizations, local administration organizations, professional bodies, religious institutions, enterprises, and other social institutions shall contribute to strengthening the communities by encouraging learning in the communities themselves. ..

Section 30 Educational institutions shall develop effective learning processes. In so doing, they shall also encourage instructors to carry out research for developing suitable learning for learners at different levels of education.

ii) The Government's Role, Ministry of Education and the Local Education Authority.

The role of the Government is to decide on the education policy and guideline to be carried out by the Ministry of Education and at the local level by the local education authority. However, in the Human Values Integrated Instruction Model, in order to be successful, the Government has to be a model of the Human Values, that is the whole cabinet of ministers should be an example for students to emulate. This applies also to the Ministry and the local education authority.

iii) TV, internet, media, entertainment

There is a great influence on the minds and so the actions of the youth in the world today from the television, internet, the media and entertainment. The violence, the vices and emotions seen or experienced from these things are stored in the subconscious of the young ones. In Human Values Integrate Instructional Model, requires that parents and teachers should regulate what children should see. If there is a lot of negativity, then parents and teachers should have discussions that will help bring out the positive or discrimination in the children.

iv) Learning Centers

Schools should locate the learning centers that are available such as museums, libraries, theatres, exhibitions, national parks, and any other places of interest which will be useful for students to learn from. The Human Values Integrate Instructional Model requires that Human Values are brought out through the experiences of such visits.

v) Universities

Most universities will arrange lectures, seminars, conferences which are opened to teachers and parents. Teachers are encouraged to make use of such facilities and report back to the teachers' meeting in the school bringing out the Human Values in the report.

b) The Community

There are a lot of benefits that the school can obtain from the community and the community can gain from the presence of the school as well. There should be much interaction between the school and the community.

i) The Role of Parents

For the Human Values Integrated Instructional Model to be really successful, we need parents who are highly committed partner in the learning process of their children. Parents are teachers at home and therefore they have to share the vision of the school with the same goal and objectives. Parents should agree with the aim of having good children with human values. Schools have to give training in Human Values Parenting to all fathers and mothers or guardians. When students are at home, parents should spend good time with their children giving children love and warmth.

Parents and teachers should have regular meetings to discuss problems of the students and should come up with a plan to help solve these problems. Parents should participate in various activities of the school and impart their knowledge and experience with students and teachers.

ii) The Community: Temple/church, hospital, police, local media, market, businesses and relatives of the students.

From Figure 6.2, it can be seen clearly that there is a great interdependence between the school and the community. The school should be treated as a living system continuously growing, developing and evolving. It is also in the process of learning as there is a constant interaction between everyone in the school and the community. Both teacher and student are in constant contact with the parents and their relatives in the community. The businesses that parents are engaged in can play an important role in the development of the school. Everyone in the school including all the staff members are very much influenced by the temple or church in the community as well as the hospital, the police station, the market and the local media.

As part of instruction, students have to learn to serve the community in its development. They should take part in the service activities in the temple or church. The school should help the community to develop and help in the education of the people in the community. When the community becomes a learning community, the school will greatly benefit from such a community.

c) The School

i) The School Climate

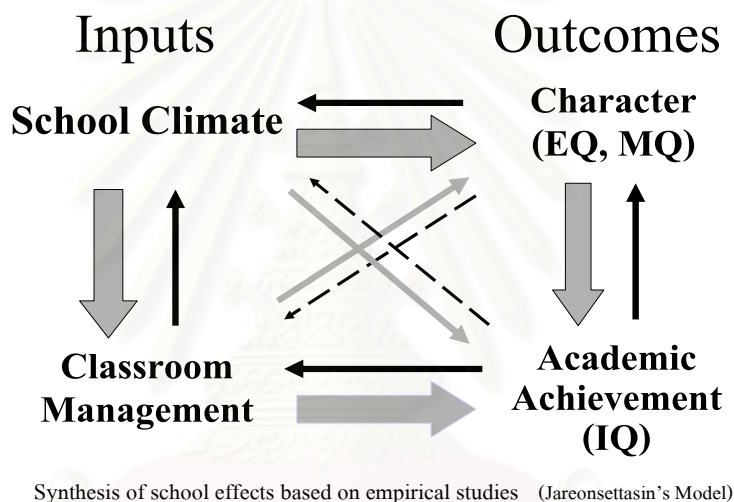


Figure 6.3 The relationship between school inputs and outcomes

From the study of Dr. Teerakiat Jareonsettasin on School Effects on Children's Development, four key areas (inputs and outputs) were identified that have effects on one another (Jareonsettasin, 2000). The starting point is the school climate or atmosphere. If the atmosphere of the school is full of peace, love and compassion, it will lead to the output desired of good character with high EQ, emotional intelligence and MQ, moral intelligence. At the same time, teachers will feel at peace and the school climate will enhance classroom management. With good classroom management, this will lead directly to academic achievement. An important discovery is that when

students have good character (high EQ and MQ), this will also lead directly to academic achievement. In Figure 6.3 above, the size and direction of the arrows indicate the magnitude of influence and directionality.

Thus the first step in the application of the model is to create an appropriate school climate that will help in the transformation of teachers and students as well as the staff in the school. This involves the proper objectives for the school, the school mission, the leadership, the policy and vision of the management, the morale of staff and teachers, parents' and students' participation. In fact all the steps in the Human Values Integrated Instructional Model will all contribute to the school climate. The following have been written from the point of view of the Human Values Integrated Instructional Model. Schools, when applying this model, should add their vision into what has been written.

ii) Objectives

To help the learner to achieve human excellence not only in the physical and mental dimensions but also the spiritual dimension. The learner will have good character and have the human values of truth, right conduct, peace, love and non-violence so as to enable the learner to live in peace and harmony with all human beings in the world.

iii) School Mission

Students will be trained to become a person of good character with the quality of Love, compassion, good manners and humility, honesty, bravery, gratitude, self-confidence, good thinking, self-sacrifice, discipline, giving service to society.

iv) School Leadership

The leadership of the school must be a constant example of good character and practice the five human values. Policies adopted should be aligned with the mission statement. The leadership should give full support to help in the fulfillment of the stated objectives. Evaluation of staff should be seen as an opportunity to guide and

support rather than evaluate and correct. In managing the school, the leadership should aim to help teachers, staff and students happy. Teachers who are happy will give better instruction. Staff who are happy will devote their energy to serving the school. Students who are happy will study well.

d) The Classroom

The word *class* comes from the Latin word *classis* which means *call*. The word *room* has a meaning derived from the old English word referring to *open space*. Thus the word classroom can be taken to mean an environment of continual openness where people are called together to study the world around them (Senge,2000. p.105). Thus a classroom where students come to learn does not have to be confined to a room with four walls around, but it can be in the open fields, under a tree, by the bank of a river, on top of a mountain etc. In fact, learning can take place anytime and anywhere. Teachers play an important role as designers of the learning environment.

i) Understanding the Learner and Learner's Role.

Students are not merely the recipient of knowledge transferred from the teachers, but they are an active participant in the learning process. Students should have a share in the development and growth of the school.

In section 22 of the National Education Act B.E. 2542. it is stated that education shall be based on the principal that all learners are capable of learning and self-development. Research on cognitive and social capabilities “suggest that every child, every teenager, and every adult has the potential to achieve something significant – if conditions support learning and if each individual's capabilities are valued” (Senge, 2000. p. 104). In the theory of multiple intelligence (Goleman, 1996), it is recognized that each learner may have different capability. Thus students may have different interest and they are likely to pursue different problems that challenge and fascinate them.

ii) Teacher's Role and Teacher's Example

Teachers should not merely transfer knowledge from the head of the teachers to the head of students, but teachers should become the facilitator to help students in the learning process. Teachers should be examples of the Human Values for the children to emulate. Teachers should inspire students.

Children learn through examples. To illustrate this, a real life example is given (Jumsai Na Ayudhya, 1997. pp.1-2). Once a teacher was teaching a class of students and while cleaning the blackboard with a cloth, the teacher dropped the cloth on the floor. Without thinking, he used his foot to pick up the cloth from the floor and continued to clean the blackboard. At the end of the lesson, one of the students put up his hand and said: *"Sir! I understand. I can do it!"* The teacher was very pleased that his student had learnt the lesson and understood what he had taught. Nevertheless, just to test the child, the teacher asked: *"What is it that you can do?"* The student replied by borrowing the cloth from the teacher and dropping the cloth on the floor, using his foot, the student picked up the cloth. The boy said excitedly to the teacher: *"This is what I can do!"*

It is clear that children will emulate examples from others especially teachers and parents. In a school, not only teachers, but also the staff of the school should be a good example. The gardener, the cooks, the janitors, the guards, the administrative staff, all have a role to play in teaching children through example. In every school, there should not be any smoking, drinking of alcohol, gambling or any other vices not only in front of the children but also behind their back as well. Schools should be charged with an atmosphere of love and peace.

In Human Values Integrated Instruction, the aim is to transform children into persons full of human excellence. To transform students, teachers must learn to inspire. To do this, teachers should learn to speak from the heart and touch the heart of the students. To speak from the heart, the teacher must firmly believe in what is said. That means that the teacher must practice what he/she is teaching. Thus, it is necessary to speak from experience rather than repeating what is written in the text books.

Teachers play a very important role in transferring human values to the students in the class without having to say anything. By arriving a few minutes earlier for the class every day, teachers are already teaching the value of punctuality. Teachers should be the role model for all the human values. They should arrive in the class full of smiles so as to bring out the smiles in the students. Teachers should radiate an aura of peace, love and compassion. This is shown clearly in the eyes and faces of the teachers. The ideal teachers should have human values integrated personality. They speak softly and lovingly. Their kindness is expressed in their speech, thought and actions. Such teachers will inspire children and touch their heart and induce transformation in the students. Such teachers do not even have to teach human values but they bring out the values and desired characteristics from within the students automatically.

iii) The Process of Instruction

1) Starting the Class – The Light Meditation

Human Values Integrated Instructional Model lays great stress on learning to calm the mind and to focus the mind or to concentrate the mind. This is often referred to as silent sitting or meditation. Every class should start with this exercise of calming down the mind and help students to focus the mind. In fact, it is recommended that all activities that require concentration, calmness, enhanced memory, peace etc. should be preceded with silent sitting or meditation. Practicing meditation for a few minutes before examinations is found to be most beneficial. Sitting silently, focusing the mind is beneficial before a game or race in sports.

In starting a class, the following sequence is proposed. Get the students to sit with the back straight but relaxed with the head straight and balanced on the body. Close the eyes so as to reduce any distraction from the sense of seeing. Start breathing slowly and deeply and concentrate on the breathing at the tip of the nose.

Simply being aware the breath going in and out of the nostril. As the air enters the nose, just be aware that the air is entering the nose. As the air comes out of the nose just be aware of the air coming out of the nose. Keep on watching the breath at the exclusion of all other thoughts. This will have a very calming effect inducing peace in the mind. At the same time, students will learn to focus the mind by concentrating on the breathing.

After some time (one to three minutes) using the awareness of the breathing described above, continue with the Light Meditation which is suitable for all ages from 6 years up to adulthood (Jumsai, 1997). Here, the teacher has to lead the meditation and the teacher should practice the technique for at least two weeks prior to leading the meditation. Teachers who are leading the Light Meditation should use soft and gentle voice that will impart calmness to the students. The voice should come from the heart. The following words can be used by the teachers or parents who are leading a group of children or adults into the Light Meditation (Jumsai, 1997. pp.84-88).

The Light Meditation

Imagine a light in front of us. Let us bring that light to our forehead. Let our head be filled with light. Whenever there is a light there can be no darkness. Our mind is filled with good thoughts. Our thoughts are filled with love and compassion.

Now bring the light to our heart. Imagine there a lotus flower. When the light reaches the lotus, it starts to open up and it becomes a beautiful flower. Our heart becomes pure and filled with love and compassion.

Now bring the light down to our arms and to our hands. Both our hands are filled with light. With these hands, we will do good actions and serve everyone with love and compassion.

Now, bring the light down to our legs and feet. Let both our feet be filled with light. Let these feet take us to good places, to meet good people.

Now, bring the light up through the body to our mouth. Let our mouth and tongue be filled with light. We speak the truth. We speak what is good and useful. Our words are full of love and compassion.

Now bring the light to our ears. Both our ears are filled with light. We hear good things. We listen to good things. We listen to everyone with love and compassion.

Now bring the light to our eyes. Both our eyes are filled with light. We look at everyone with love and compassion. We see good in everyone and in all things.

Now take the light back up to our head. Let our head be filled with light. We are filled with love and wisdom.

Now let the light increase in intensity. It is becoming brighter and brighter. The light is now expanding outwards until it covers our parents, our teachers, relatives and friends. The light continues to expand until it covers all the peoples of the world as well as animals and all of nature. Let the world be filled with light and Love. Let the world be filled with peace. Continue to expand this light to every corner of the universe. Every where there is light.

We are in the light.

The Light is in us.

We are the light. (Remain silent and still for a while, feeling the love and light in everyone and the same light is in us and feel that we are the light. Then end the meditation with the following words.)

Now bring the light and install this in our heart. Wherever we go, wherever we are, whatever we do, we will always have this light in our heart. Slowly, we can now open our eyes.

It is to be noted that during the light meditation, some light background music may be played. It should not have heavy beat and it should only be instrumental music without any singing.

2) Integration of Human Values in Various Subjects

There are many ways to integrate Human Values in a subject.

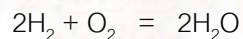
- Bring out the inherent values in the subject.
- Direct integration where Human Values are an integral part of the subject.
- Use simile and make a comparison with similar events in the life of the students.
- Change negativity into a positive lesson.

- Bring out values through discussions and brainstorming
- Use stories to bring out values.
- Play Human Values game.
- Tell life stories of great personage.
- Use songs and music to integrate values.
- Use drama to depict events with Human Values.
- Use various activities such as service activities, field trips and clubs to draw out Human Values.

Inherent Values

Many subjects already have inherent values or values that exist as a natural quality. These values should be brought out by the children themselves. Let us take an example from science on the subject of water.

The chemical formula for producing water from the basic chemical elements is



This means that 2 molecules of Hydrogen combine with one molecule of Oxygen will become two molecules of water. Armed with such knowledge, the students can become a chemist or a scientist and can earn a good living. But in the Human Values Integrated Instructional Model, education is not merely for living but far more important, education is for life. Thus teachers should ask students to discuss the inherent values that exist in the water. Get the students to supply the answers. Teachers may use questions to help the children think about the values. Here are some of the inherent values that children will be able to think for themselves.

As water flows along in the river, there are people taking water for drinking, cooking food. Others take a bath in the river and cleanse themselves. Farmers are using water for agriculture. Some people are traveling on a boat to travel from one village to another. Fishermen are catching fish from the river and earn their livelihood from the river. Further down the river, there is a dam where hydro-electricity is produced. No matter where water is, it is useful for everyone. Thus we should love water and take care of the water. We should not cause any pollution to the water.

When the students are asked what lessons in life can we learn from the above discussion, the students come out with the following answers. They observe that wherever water flows, it makes itself useful to everyone without any distinction. So also, wherever we go, we should be useful to everyone. We should serve all without any distinction.

Integration of Human Values in Mathematics

Human Values are an integral part of the life of a good person. Thus Human values must be integrated in all subjects. As already shown in the Human Values Integrated Learning Concept that by storing the Human Values in the subconscious mind, the student will interpret stimuli that come through the five senses accordingly.

There are several ways to incorporate values in any subject. The best is direct integration where values are direct part of the subject. Students will not feel that they are being taught the values and there will be no resistance. A second way to incorporate values is to use simile which is a comparison with similar events in the life of the students. A third way is to bring out the values through discussion or brainstorming. The teachers can ask questions such as "What can you learn from this in your life?" A fourth way is to use stories that illustrate the values and the subject being taught. Teachers will find number of ways where values can be brought out such as playing games, role plays, drama, debates, field trips, etc.

In 1996, the researcher and some visitors were observing a class in mathematics in the first grade at the Sathya Sai School (Jumsai Na Ayudhya, 1997. pp.16-17). The class teacher was using a standard text book in mathematics from which he was reading problems in mathematics. The observers read the problem in the book which said: A farmer had ten cows. 7 cows were stolen. How many cows does the farmer have now? This problem if read out to the children as is could be very harmful to the students. The reason is that stealing was mentioned as though it is a normal thing to do. There was no mention that we should not steal and that it would cause harm to others. If this was allowed to be stored in the subconscious then it would be used for future interpretation. A child may see something and the thought of stealing the object

may come out from the subconscious that will make the child become a thief. Now, the class teacher started to read out the problem. He said: "A farmer had ten cows." The teacher stopped to think and then he continued to say: "The farmer has a son whom he loves very much and he decided to give 7 cows to his son. How many cows does the farmer have now?"

The mathematical problem was the same, i.e. $10-7=?$ But the teacher had changed the wording in which values are integrated automatically into the problem and got rid of the negative value that existed before. The observers to the class were all very relieved and happy with the teacher.

Here is another example (Jumsai, 1977 p.25). My parents love me very much. One day, they went to the market to buy 32 apples and brought them back home for me. That day, 7 of my friends came to visit me and I remembered my teacher taught me to share and to give. So I decided to share the 32 apples with my 7 friends and myself equally. How many apples should I give to each person?

$$32/8 = 4$$

In this problem, we have the values of parental love, sharing and giving. It also shows how mathematics can be related to real life situation so that children will understand and appreciate mathematics in their own life.

The following is an example using simile.

$$1+2+3+4+5 = 15$$

No matter which order we add the 5 numbers, we will arrive at the same result. Thus

$$1+4+5+2+3 = 15$$

$$2+5+4+3+1 = 15 \text{ etc.}$$

Similarly in life, there are different ways we can take to arrive at the same truth. We may take different paths which is suitable for each person. We cannot say that our path is better than others. We should not quarrel about this. Instead, we should be tolerant of each other and respect each other's way.

We can use stories to integrate Human Values and Mathematics (Jumsai Na Ayudhya, 1997, pp.19-21).

Ong was a taxi driver who worked hard but could earn only just enough to feed his wife and two children, Tina and Tom. One day he had just 125 Baht in his pocket when he picked up his first customer who asked to go to his home. The customer paid Ong a fare of 75 Baht. Since he was very near to his home, Ong decided to drop in and have a cup of tea. Just as he was about to leave the taxi, he noticed a small package that the first customer had left in the taxi. He took it inside the house. The wife and children were at home to welcome him. Ong opened the package and found a lot of money in the package. He counted it and found that the amount was 7,650 Baht. Tina said to his father: "Dad! That poor man must be very unhappy that he lost all that money." Tom also said to his father: "My teacher taught me to be honest and never keep anything that does not belong to us." Ong then agreed with his children that the money must be returned to the rightful owner immediately. He took the children with him in the taxi and drove to the house of the customer. Tina took the package and said to the man who opened the door: "Sir! You left this package in my father's taxi. We did not want you to suffer so we came with the father to return this to you immediately." The man was very happy, he thanked the taxi driver and his children. Just as the father and the children were about to leave, the man said to Ong: "Wait! I will just keep 5,000 baht and I want to reward you with the rest. Please keep it." Ong wanted to refuse but the man insisted saying that he was so joyful to meet a person who was so honest. So Ong received the money and took the children back home. Tina and Tom were very proud of their father and they were determined that from that day, they will be honest and trustworthy like their father. Ong did not work any more that day. He decided to stay with his family. Later on in the afternoon, news appeared on television about the honest taxi driver. The Lord Mayor of the town called on the home of Ong and presented Ong with a reward in cash amounting to 9,999 Baht and declared to reporters that Ong had been honoured as a model citizen of this city. The whole city was proud of Ong. By the end of the day, how much money did Ong have?

$$125 + 7,650 - 5,000 + 9,999 = 12,774$$

Stories depicting Human Values from the life of great mathematicians should be told. Here is a story about Sir Isaac Newton.

Newton had a pet dog called Diamond. He loved his dog very much. One day, Newton had finished writing his scientific work in the manuscript and decided to go out for a walk. Diamond saw his master leaving the room and so diamond decided to follow his master. In jumping after his master, the candle was knocked down and all the months of work written in the manuscript was burned and destroyed. Newton saw this but it was too late to save the manuscript. Newton looked at Diamond for a while. He did not show any anger because of his love for the animal. Newton said quietly: "Diamond! You will never know what mischief you have done today!"

Integration of Human Values in Science

In science, inherent values are present in most cases and students should be asked to discuss how this can be applied to our life. A few examples of how to bring out the values in science are given here.

The Sun

The sun shines its light on all equally. There is no distinction of colour, race or religion. The rich and poor receive light from the sun in equal measure. For people hiding themselves inside a house, the sun waits patiently outside and when the window is opened, the sun will immediately flood the room with light.

This is a great example of pure love. Love knows no distinction of race or religion, rich or poor. Love desires nothing in return. Love is patient, when the heart is opened, love will flow immediately.

Plants

Plants need air, water, light in order to grow. When they are small, plants need care and attention. So for a child to grow properly, we must give care, attention, understanding and love.

The Balance

When one side of the balance has too much weight, it will tip on that side. When we put too much weight on the other side, the balance will tip to the other side. In order to have equilibrium, we must have equal weight.

In the same way, we should lead a balanced life and avoid extremes. If we eat too much we might suffer from indigestion. If we eat too little we would be hungry. Thus we should lead a life of moderation or middle path.

Magnets

When two magnets are put together with North and South poles together, they become as one with a much stronger magnetic field.

If two persons work together in unity and help each other, they can achieve more than one individual can.

The Earth

The earth is spinning about its axis at the rate of 360 degrees per day. It is ceaselessly doing its duty without rest, thus giving us day and night. This enables us to have light to work with during the day and darkness to give us rest at night. Because its axis of spin is slightly inclined, it gives rise to changing season. During certain seasons, we can grow rice, vegetables etc. At other seasons, we can reap the harvest.

Thus the earth is constantly serving the people living on it. This is a great example of doing duty and giving service without wanting anything in return.

Fun and Games in Human Values Integrated Science

This is an experiment on light where children are using mirrors to reflect sun light along the floor. The first child sits by the window where the sun shines light into

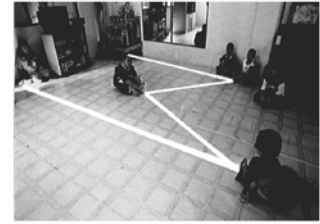


Figure 6.4 Light experiment

the room. Using a mirror, the child reflects the light along the floor to the child on the right of the picture who in turn reflects the light received to the child in the centre of the room, and so on. Teachers should always remember the main principle of instruction and that is teachers should be the facilitator to help students to learn rather than merely transferring knowledge from the teacher to the student. Students are asked to observe the light on the floor. Then teachers may elicit answers from the students by asking questions. "What are the properties of light?" From their observation, the children will come up with the answer that light travels in a straight line. The teachers can then follow up with another question. "Does light travel slowly or quickly?" Children can observe that light travels very quickly. To elicit values, the teacher can ask : " To go from one point to another, does light waste time by wandering to the left and to the right before reaching the destination?" Through direct observation, children will say: "No! Light does not waste time. It goes directly to the destination." Continuing with the method of Socrates of asking questions, the teacher can test if students have grasped the value of not wasting time. " You have home work to do tonight. Are you going to the shopping mall first and do your homework in the morning? Or, are you going to watch television tonight and do the homework in the morning?" After some discussion, students will come up with answers that they will not waste time. They will do their home work first then if they have time, they will watch television.

Human Values Game on Reflection of Light

Four students stand in positions 1,2,3 and 4 with a mirror each to reflect light. Sun light shines on the first student

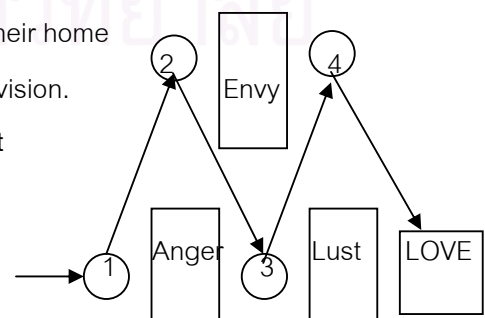


Figure 6.5 Human Values game on light

and the aim is to shine the light on to the target of LOVE. However there are obstacles to the path of light as shown. Each obstacle is labeled ANGER, ENVY and LUST. Thus the first student cannot shine the light on to the target of LOVE because ANGER and LUST are in the way. So the student must avoid ANGER by reflecting the light to the second student. The second student cannot shine light on to the target because ENVY and LUST is obstructing the path of light. So the second student must avoid ANGER and ENVY, by reflecting the light to the third student. Similarly, the third student must avoid ENVY and LUST by reflecting the light on to the fourth student. Now the fourth student is able to shine the light on the target of LOVE.

The class is divided up into teams of 4 students and there is a competition as to which team can achieve the shortest time to shine the light on to the target of LOVE. Students have a lot of fun and the teacher does not have to teach any value. The students realize that in order to have love, they must avoid anger, envy and lust.

The Life of Great Scientists

There are many scientists who have shown Human Values such as humility, simplicity, love for humanity, determination etc. An example here is given from Albert Einstein, the famous scientist who was known for simplicity in his speech and dress as well as in behaviour (Sri Sathya Sai Books and Publications Trust, 2002). There are many events in his life to illustrate his love for humanity and his sense of humility.

In the ward in which Einstein lived there was a girl who could not fare well in mathematics in her class. She was very poor and therefore, could not afford any private tuition in this subject. She was, therefore, very unhappy about her poor standard in mathematics.

One day, a lady told her, "My dear, Einstein the famous mathematician lives in our ward. Why don't you go and request him to coach you in mathematics?" The girl went to Einstein's house. She was affectionately welcomed. He asked, "What do you want, my child?" She replied, "Sir, I have to ask of you a favour. I am very poor in mathematics. I am afraid that I may fail in the examination, this year also. I have come to request you to give me tuition in mathematics." Einstein replied, "Certainly my child,

come from tomorrow. I shall teach you mathematics. Do not worry.” The girl thanked him and took leave of him. From the very next day she was taught mathematics by Einstein. After a month, the mother of the girl went to Einstein and said, “I am really very grateful to you Sir, for coaching my child. But I am afraid that by giving tuition to my daughter, you are spending so much time. Perhaps we are causing you inconvenience.” Einstein replied, “Mother, it is a pleasure to teach your daughter. In fact, this has been an opportunity for me to learn from your daughter several things related to everyday life. Now, I understand how ignorant I have been about matters related to actual life. I must really thank your daughter.” The girl’s mother wondered at the humility and humanism of Einstein.

Integration of Human Values in Art Subjects (Burrows, 1997)

Human Values are inherent in all subjects. Let us look at various examples taken from various subjects.

History

There are many historical figures who have shown Human Values in their lives.

Abraham Lincoln showed perseverance in his attempt to be elected as the President of the United States.

Mahatma Gandhi used non-violence to lead India to independence.

Emperor Ashoka of Bharat worked for universal understanding, tolerance and peace. In one of his edict which was carved on a rock, the Emperor said:” One should not honour one’s own religion and condemn the religions of others. Let all listen to the doctrines professed by others.”

Florence Nightingale is known for her love and compassion and great self-sacrifice. She is the patron and symbol of modern nursing.

Mother Teresa is considered as a modern day saint. She was full of love and compassion and she was known for her simplicity.

The above is just a short list of historical figures who have exhibited Human Values. There are naturally people who are opposite in character. Students should discuss the lessons that can be learned from such people as well.

Many historical events are filled with negativity. Teachers should turn the negativity into a positive lesson. When the atomic bomb was dropped on Hiroshima, there was tremendous destruction and death. But now, Hiroshima has become a symbol of peace.

Geography

The following ideas could be generated from the study of geography (Jumsai Na Ayudhya, 1997. p10).

- Understanding of the interdependence and interrelationship between countries.
- Understand the way of life of various communities in the world.
- Appreciate all aspects of human life.
- Be sensitive and act responsibly towards the feelings and needs of other people.
- Appreciate efforts taken to eradicate poverty.
- Responsibility for the environment.
- Appreciate for the natural resources blessed by nature.
- Be aware of the dangers of natural disasters like flood, famine, earthquakes, etc.
- Be sensitive and care for the less developed countries.
- Show love, consideration and compassion for people of other lands.

Integration of Human Values in Sports

Before playing sports, students should discuss about the games, the rules of the games and find out the inherent values from the games. For example, in a football game, teachers can ask questions such as “When you have the ball at your feet, are you going to keep the ball to yourself and try to go on your own and shoot the ball into the

goal by yourself?" The answer from the students is "No! We cannot do that." The teacher should continue to ask for the reason. Then students will respond that they need to work as a team. They need to pass the ball from one player to another in the same team. Only when they are united then they can achieve victory. The teacher should try to apply the inherent values to the lives of the children by further asking questions, "How can our society be successful?" Society is like a football team. There must be unity in the society. People must learn to share and give. Society should have team spirit.

Integration of Human Values in Extra-Curricular Activities

Let us consider the following activities:

- Service activities
- Field trips
- Drama
- Clubs
- Music

Service activities are very important for children. Teachers should take students to the community around the school and help clean up the area, visit homes, plant trees etc. Human Values are automatically integrated in all the service activities.

When students are on field trips, they should observe everything around them and discover the values in everything that they see.

Drama can affect children for a long time. Mohandas, when he was a little boy, saw a play on the life of King Harichandra who stuck to truth no matter what would happen to him or his family. Mohandas was determined from that very moment to live a life of truth. He grew up to become the Mahatma Gandhi.

When children are actors themselves, they should be reminded that life is like a drama on stage. On the stage we may act various parts with joy and sorrow, with ups and downs. We may have difficulties or success. But when we come down from the stage, none of what has happened on the stage affects us. In life, similarly, we may go

through many challenges which may give us happiness and grief, but we should learn to be detached from everything at the end of the day.

Music can be very inspirational for children and will help their concentration and promote peace. Children should be taught about harmony. When there are many players in a band or an orchestra, everyone should play together as one. We should have the same timing and our notes should be in harmony with others. Our life is the same. We should work together and help create harmony in our society. In this way, our society will be full of peace.

c) Human Values Interdisciplinary Integration

In this type of integration, many subjects are brought together into one whole topic or theme with the Human Values as an integral part.

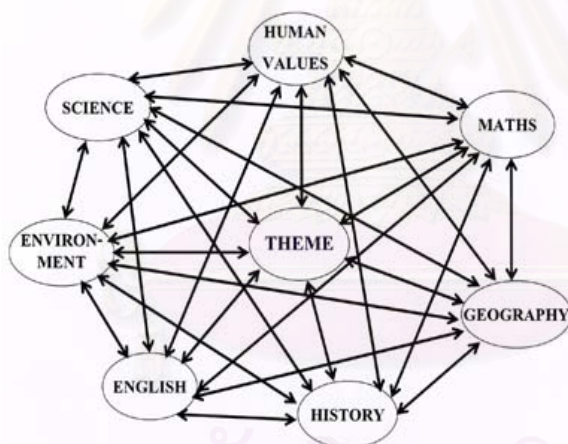


Figure 6.6 Human Values interdisciplinary integration

Figure 6.6 shows an example of how Human Values are interrelated with all the subjects that have been brought together as part of the theme. It is to be noted that students should play a significant role in the planning of such a class. They should help make decision on the theme of their interest. When students learn about what they are interested in, they will be more active in the learning process. When the theme has been

decided on, teachers who are teaching the various subjects have to meet to plan the class. Teachers have to bring into consideration the following:

- The objectives
- The Human Values Integrated Learning Concept
- Active participation of the students
- The curriculum
- Participation of parents and the community
- Evaluation

An example of a typical class of Human Values Integrated Instruction model is demonstrated below. This is based on an actual class that was arranged for children in the first grade at the Sathya Sai School. The first step is to get the students to decide on the theme of their choice. The classroom teacher asked the students what they would like to know. The students may propose several subjects and they have to come to a consensus on which topic is to be studied first. After a lot of active discussion, they came up with the topic of their choice which is about pizza. The teacher then stimulated the students to ask questions about the pizza which can be summarized in 3 main questions.

1. What does a pizza look like?
2. What are the ingredients necessary to make pizzas?
3. How to make the pizzas?

The teacher now had to plan the class and she had a meeting with other teachers who were involved in the teaching of the first grade, the kitchen staff, the gardener and the driver of the school bus. The teachers involved included the librarian, art, music, science, and mathematics teachers. Parents who could help in the project are also contacted. It is to be recognized here that in child-centered education, students may come up with new suggestions in the process of instruction and everything may not go according to the planning. Thus teachers need to be very flexible and very often both the teachers and students are learning together. Such projects may require a lot of time and may last several days or even weeks. For example, the Sathya Sai Kindergarten

uses the project approach in the instruction process. Throughout the school year, teachers are able to cover about ten projects, thus averaging about 4 weeks per project.

The teachers and students of the first grade finally came up with the following plan.

Theme: Pizzas

Class: Grade 1

Objectives: 1. To bring out Human Values from the children

2. Children will learn to ask questions and search for the answers to their questions and share the information with others.

3. Children will experience the fun and joy in learning.

4. Children will appreciate that mathematics, Thai and English languages, science, art and music, and social subjects are all a part of their life experience.

Methodology: The project approach. See the mind map in figure 6.7.

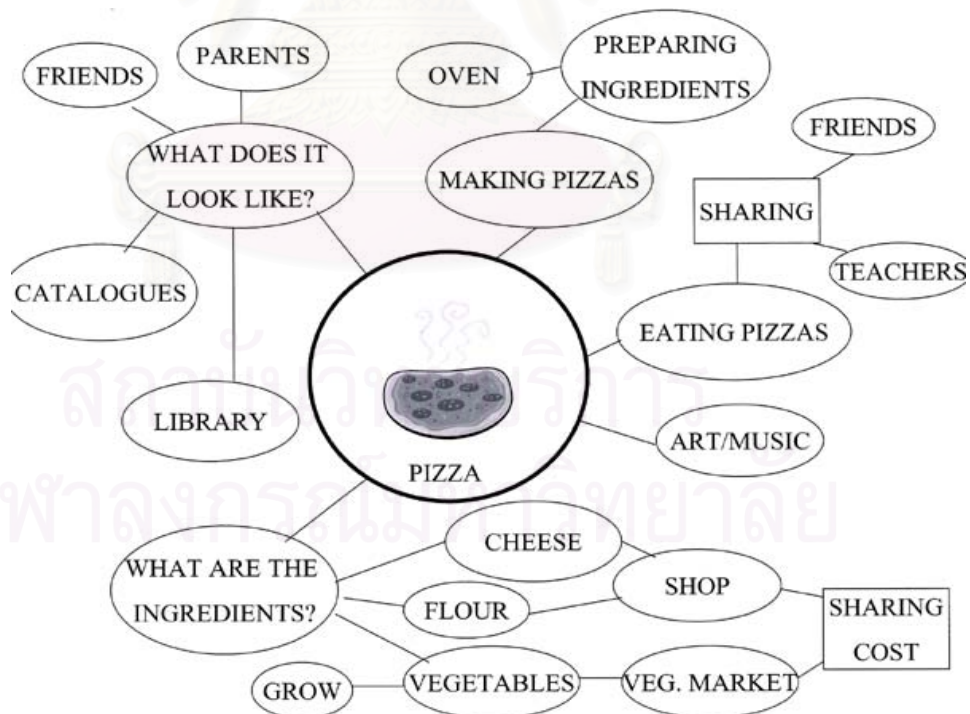


Figure 6.7 Mind mapping of the pizza project

1. Each class will always start with some silent sitting/meditation.
2. Review by the students of what has been done in the project.
3. Children decide on the plan of action for this class with help from teachers where necessary.
4. Students carry out the plan. Normally, this is done as a group.
5. Presentation by each group of students on what they have done.

Evaluation: Authentic Evaluation

Teachers: Teachers observe the students constantly throughout the project and note down what has been observed. Check list for observation should be prepared by the teachers and this has to be in accordance with the objectives stated.

Behavior changes

Human Values observed

Questions asked by the children

Carrying out the search for answers

Sharing of information

Did children have fun and joy in learning?

Participation of children in using mathematics, science, languages – Thai and English, social subjects, art and music.

Children: Children evaluate themselves based on the same check list as the teachers but put in simple questions. Children are asked to keep a portfolio of their presentations, pictures they have drawn, photographs, music they have helped to compose, etc..

Kitchen staff, parents, shop keepers and others are asked to evaluate the behavior of the children in their contact with them.

Description of the students activities in the project

First Phase: Finding out what pizzas look like

The first question about pizzas is what they look like. Teachers asks the student to go and find out the answer. The students have a discussion first and they agree that they have to find out from the library, from the older friends in the school, from their parents, and by collecting catalogs from various pizza houses. They divided themselves into small groups in accordance with their interest. Then they worked in group collaboration to obtain the answers. After obtaining the answers, they came together in the class and shared the information with all the friends in the class.

Second Phase: Study the ingredients for making pizzas

Students agreed that the main ingredients are cheese, flour and vegetables. Thus they needed to visit shops that sell flour and cheese and for vegetables they needed to go to a vegetable market. Some students suggested that their parents had grown vegetables and they could go and find out more in the fields where agriculture took place. This time, they decided that they will all go together as one group (25 children in grade 1). The bus driver took them in a school bus. On the way to the shops, the bus driver who is a local person, describe what they were seeing especially telling the children about what was being grown in the fields that they passed.

The first stop was a shop in the town that sold flour and cheese. The shop keeper was very busy with selling goods to customers. But on seeing neatly dressed little children in their school uniform, the shop keeper told his assistants to take care of the customers and he came to welcome the children. The children paid respect to the shop keeper and displayed good manners and behavior.

The shop keepers seemed to love the children and spent sometime answering questions and gave information about ingredients for making pizzas. The children enquired about the cost as they wanted to share the cost of making pizzas amongst themselves. They bought enough ingredients to make 10 big pieces of pizzas. They

then went to the vegetable market. Again the vendors in the market loved the children and helped the children and gave them any information that the children were asking.

The next stop was the agriculture that belonged to one of the parents. They were greeted by the happy parents and then taken to the fields where vegetables were grown. They learned about the soil, fertilizers, recycling of water for watering the vegetables. The parents told the children to pick the vegetables they needed for their project without any cost. The students returned to the school and discussed what they have learned on this fieldtrip. The teachers helped the children to calculate the total cost of the ingredients they needed and how to share the cost amongst themselves.

The Third Phase: Making the Pizzas

The children went into the kitchen and the kitchen staff helped them to prepare the ingredients and learn to use the ovens for baking the pizzas. Once again the children displayed good manners and respect to the kitchen staff thus good cooperation was given.

The Fourth Phase: Eating the Pizzas

Now that they have made 10 big pieces of pizzas with the help of the kitchen staff, they are now hungry to eat the pizzas. One boy suggested to his friends that they should share some of the pizzas with their friends and the teachers who have helped them. So they decided to share just one big piece of pizzas with their friends and teachers. They cut up the one pizza into small pieces and they ran to give these small pieces to their friends and teachers to taste. Teachers then observe a wonderful phenomenon. The children ran back and they started to cut up all the pieces of pizzas and they ran out to give these pieces to their friends and teachers. They did not eat any of the pizzas they had made. Teachers asked them for the reason for this strange event. The children explained that when they first shared the one pizza, they were so happy to see every one smiled and the happiness of friends and teachers. This made the children very joyful and so they decided to give away all the pizzas they made.

The Fifth Phase: Art and Music

The children drew pictures of pizzas and then they sang songs which they composed with the help of the music teachers in both the Thai and English languages. Here is the song on Pizza.

THE PIZZA SONG (Using the tune of Frere Jacques)

We love pizzas. (2x)

We work together, (2x)

To make tasty pizzas (2x)

For one and all. (2x)

Conclusion

The Human Values shown by the children in the project.

Right Conduct: Good manners, politeness, respect for others, working together, cooperation.

Truth: The search for answers, learning to report truthfully.

Peace: The joy and peace in giving and sharing.

Love: The love and unity they have shown amongst themselves, the love and respect they have shown towards other, sharing and giving.

Non-violence: Working in unity, Love of nature. Growing plants using recycling water.

The subjects that they have learned as part of their experience.

Mathematics: They learn to add the cost of all the ingredients and share the costs amongst themselves.

Languages: Thai and English vocabulary

Science: Plant growing, fertilizer, the environment

Social Subjects: Working together, helping one another, sharing, giving, good manners, Cooperation.

Art: Drawing pictures of pizzas

Music: They worked on composing a song on Pizza with the help of the teacher.

4) Evaluation

Evaluation should be based on authentic evaluation, where there is constant observation of the students' behavior. It is not an evaluation where children are compared, but it is an evaluation to establish changes taking place in comparison with himself/herself. All interested parties should participate in the evaluation. Teachers, students themselves, their friends, parents as well as some community members who are involved in the projects with the students should help in the evaluation. Simple questionnaires and interviews should be used. Children should keep a portfolio to show the work that they have done. This can be shown to their parents and friends.

Conclusion

The Human Values Integrated Instructional Model based on Intuitive Learning Concept can now be summarized in Figure 6.8. The classroom consists of the student and the teacher. The classroom is within the School with the school leadership. The School needs to interact with the community and the outside world.

สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

Outside World

Education Act Government's Role Ministry of Education Local Education Authority
 TV, Internet, Media, Entertainment Learning Centers, Museums etc. Universities

The Community

1. Parents' Role
2. Temple/Church/Mosque Hospital Police
 Local Media Market Relatives Business

The School

1. The School Climate
2. Objective
3. School Mission
4. School Leadership

Classroom

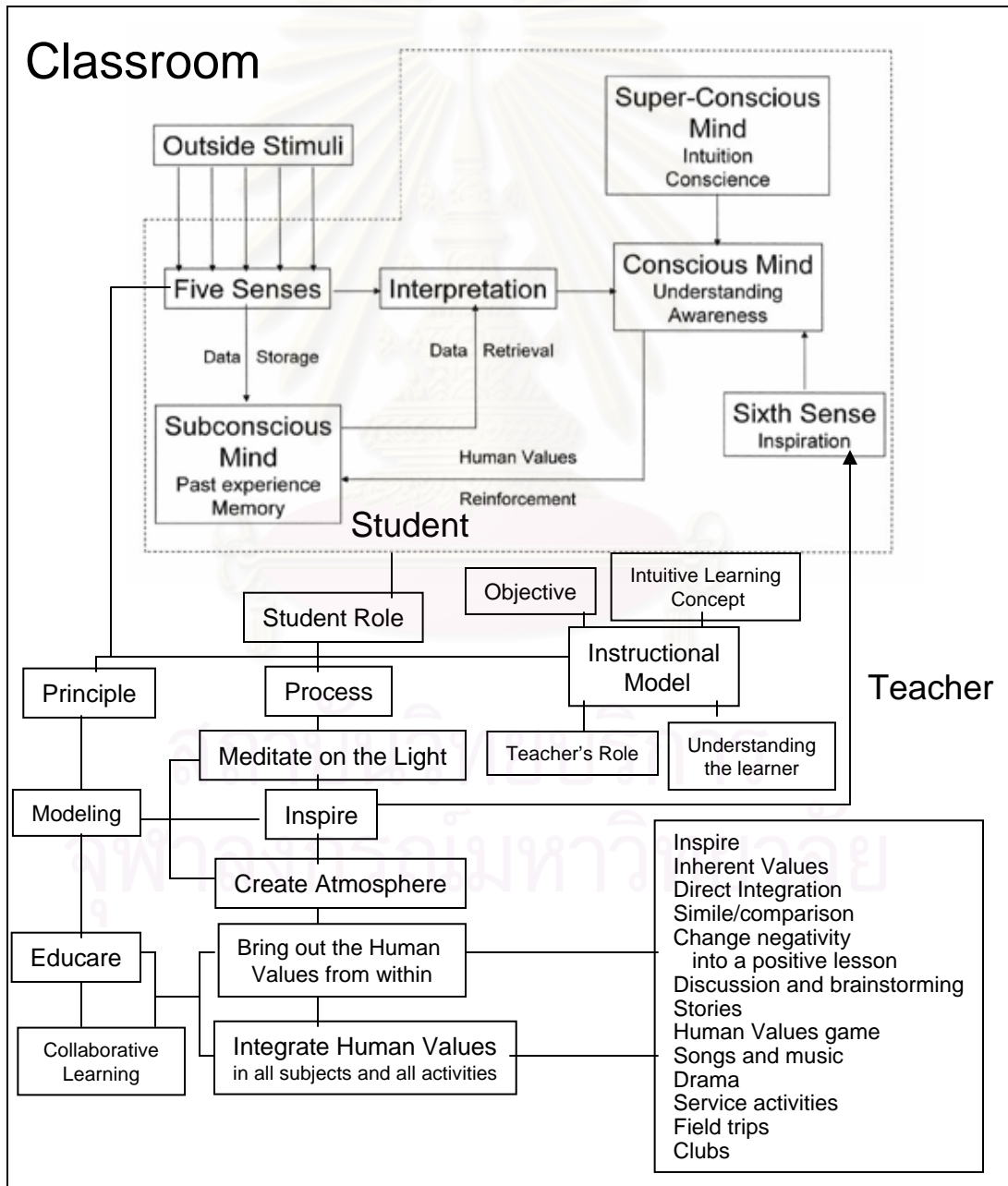


Figure 6.8 The Human Values Integrated Instructional Model

Chapter 7

Test of the Model on Students and Teachers

The Model developed in Chapter 6 is now being implemented in the Sathya Sai School although the Human Values Integrated Learning Concept as described in Chapter 3 has been used previously in the school. Following the research on students and teachers described in sections 5.1 and 5.2 in Chapter 5, we have seen big changes in the character and behaviors of the students and teachers. Students felt more peaceful in their everyday life and have greater love and compassion towards all living things. The causes for the changes are mainly daily prayers and meditation and the influences from their teachers. As for the teachers, they also felt more calm and peaceful as well as having greater love and compassion. The main cause for the transformation is again daily prayers and meditation. At the same time, there is an influence from their colleagues, the teachers themselves as well as the love of the children towards the teachers.

This chapter will deal with Phase 5 and phase 6 of the study. In phase 5, the Human Values Integrated Instruction Model was presented by the researcher to teachers and educators as well students and parents in Thailand as well as in Fiji Islands, China, Indonesia, and Kasakhstan. Feedback was obtained from those who attended the presentation. Phase 6 describes tests conducted on students at two different levels. Both were done during the first semester of the academic year 2003. The first test was conducted on second year undergraduates of the Faculty of Education, Chulalongkorn University. Due to the available time of the test which was a period of 5 weeks with two hours per week of instruction, it was not possible to apply everything mentioned in the Model in Chapter 6. The second test was conducted on students of the 5th grade at a primary school in Lamnarai in the province of Lopburi. The time available for the test was only nine weeks at one hour of instruction per week. Thus the same limitation applied in this second study.

6.1 Presentation of the Model to Teachers and Academics, Students and Parents

The researcher presented the Human Values Integrated Instructional Model to a wide audience of different countries, races, religions, cultures and tradition. Feedback was obtained in order to make any changes to improve the Model.

6.1.1 Foreign Countries

The following countries were given seminars on the Human Values Integrated Instructional Model: Fiji Islands (5 one day seminars), Kazakhstan, China, and Indonesia (2 one day seminars). They were given an evaluation form at the end of the day to fill in. The questionnaires contain 4 statements which they answer by choosing one of the five choices: very much, much, fair, little, none.

First statement: After listening to the talk on the Model, you have gained more knowledge and understanding of the learning and teaching concept.

Second statement: The model can be usefully applied to teaching in the classroom.

Third statement: You are inspired and motivated to apply this model in your profession.

Fourth statement: You are inspired and motivated to apply this model in your own daily life.

Population:

Fiji Islands:	474 persons	60.93%
Kazakhstan:	52	6.68%
China	15	1.93%
Indonesia	237	30.46%

Sex:

Female:	374 persons	48.07%
Male:	393	50.52%
Not specified:	11	1.41%

Education:

Bachelor Degree:	354 persons	45.50%
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Master Degree:	41	5.27%
Doctorate Degree:	9	1.16%
Other qualifications:	319	41.00%
Not specified:	55	7.07%
Profession:		
Preschool teachers	52	6.68%
Primary School teachers	252	32.52%
Secondary School teachers	222	28.53%
School Administrators	128	16.45%
University Lecturers	44	5.66%
Students	29	3.73%
Clergy/monks	7	0.90%
Parents	46	5.91%
Others	33	4.24%
Not specified	5	0.68%

Table 5 Response of overseas teachers to the questionnaires

	Very Much		Much		Fair		Little		None		Not specified	
	Persons	%	Persons	%	Persons	%	Persons	%	Persons	%	Persons	%
Understanding of Concept	488	62.7	228	29.3	48	6.2	7	0.9	2	0.3	5	0.6
Applied in teaching	465	59.8	256	32.9	33	4.2	14	1.8	1	0.1	9	1.2
Motivated to use this Model in class	477	61.3	228	29.3	49	6.3	12	1.5	0	0	12	1.5
Motivated to use this Model in life	536	68.9	191	24.6	36	4.6	9	1.2	2	0.3	4	0.5

Conclusion: Taking the responses of very much and much we find the following: –

Statement 1: After listening to the talk on the Model, you have gained more knowledge and understanding of the learning and teaching concept.

Number of persons who responded very much or much: 716 or 92.0%

Statement 2: The model can be usefully applied to teaching in the classroom.

Number of persons who responded very much or much: 721 or 92.7%

Statement 3: You are inspired and motivated to apply this model in your profession.

Number of persons who responded very much or much: 705 or 90.6%

Statement 4: You are inspired and motivated to apply this model in your own daily life.

Number of persons who responded very much or much: 727 or 93.5%

From the above statistics, the Human Values Integrated Instructional Model has been well received and accepted by the majority of teachers in all the countries above.

6.1.2 Thailand

The Human Values Integrated Instructional Model was presented to teachers, lecturers, students, parents, etc. in Thailand. The details are given below.

Total Number of persons: 824

Places where the Model was presented:

Chaiyapoom	140 persons	16.99%
Rajabhat Mahasarakham	76	9.22%
Lopburi	115	13.96%
Rajabhat Nakornsawan	137	16.63%
Cancer Center, Saraburi	19	2.31%
Chulalongkorn University	75	9.11%
ABAC University	57	6.92%
Foreign Teachers/Sathya Sai School	8	0.97%
Teachers from various provinces	197	23.91%

Sex: Female	449 persons	54.49%
Male	375	45.51%

Education:

Bachelor Degree	649	78.76%
Master Degree	118	14.32%
Doctorate Degree	6	0.73%
Other qualifications	41	4.98%
Not specified	10	1.23%

Position:

Pre-school teachers	45 persons	5.46%
Primary School Teachers	303	36.77%
Secondary School Teachers	159	19.30%
School Administrators	153	18.57%
University Lecturers	17	2.06%
University Students	120	14.56%
Monk	1	0.12%
Parents	2	0.24%
Others	32	3.88%
Not specified	1	0.12%

Questionnaires were given at the end of the seminar. The questions were as follows:

- 1) You have better understanding of the Human Values Integrated Instructional Model after listening to the talk.
- 2) The Model fits in agreement with the National Education Act B.E.2542 (1999)
- 3) The Model can be used in instruction in the classroom.
- 4) The Model can be used in our daily life.
- 5) Any suggestions to improve the Model.

The answers to the questionnaires are summarized in the table below.

Table 6 Response to questionnaires of Thai teachers

Question/Statement	Very much	Much	Fair	Little	Not at all	No answer
	%	%	%	%	%	%
Good understanding of the model	31.67	54.49	12.74	0.73	0	0.36
Agree with the National Education Act	41.26	49.03	7.77	0.61	0	1.33
It can be applied to instruction in class	35.92	52.43	10.44	0.61	0.12	0.49
It can be applied to our daily life	46.11	35.63	8.75	1.88	0	1.88

The following suggestions were given:

- The seminar should last longer.
- Similar seminars should continue to be arranged.
- Seminars should be arranged for
 - All those who are involved in education
 - School administrators
 - Parents
 - The general public
 - The youth
- Would like to see an actual class using this Model.
- Would like to have more details on this model.

Conclusion

In answering the questionnaires, by taking the answers of “very much” and “much” together, we obtain the following percentage of all the respondents.

Question 1: You have better understanding of the Human Values Integrated Instructional Model after listening to the talk. 86.16% of the respondents answered very much or much.

Question 2: The Model fits in agreement with the National Education Act B.E.2542 (1999). 90.29%

Question 3: The Model can be used in instruction in the classroom. 88.35%

Question 4: The Model can be used in our daily life. 81.74%

From the above results, the majority (>81%) have a good understanding of the Model and found the model to be useful in the classroom as well as for their own life. There were no suggestions to help improve the Model. The suggestions given were mainly requests to continue to give seminars to all educators as well as school administrators, parents, youths as well as the general public.

6.2 Tests Conducted on Second Year Undergraduate Students

Test Site: Faculty of Education, Chulalongkorn University, Bangkok

Treated Class: Second year undergraduate class.

Period of Test: June 3, 2003 to July 1, 2003

Duration of Test: Two hours per week totaling 10 hours

Variables:

Independent variable: Human Values Integrated Instructional Model

Dependent variable: Change of attitude to life

Evaluation: Pretest and post test were performed at the beginning and at the end of the course.

Research Instrument: Students are asked to answer a simple question: "What do you want most in your life?"

Marks from 0 to 10 are then given in accordance with the following criteria.

Marks	Criteria
0	Selfishness, doing everything for oneself
1	Doing things for oneself and family only
2	Doing things for oneself, family and society
3	Not thinking of oneself, but only for family
4	Not thinking of oneself but for family and society
5	Thinking of society
6	Thinking of society and country
7	Thinking of society, country and the whole world
8	Thinking of the whole world
9	Seek the Truth of Life – middle path – sense control
10	Complete detachment from the world – no desire for anything

Another questionnaire (Appendix 1) was used at the end of the course to find out whether the objectives were also achieved in addition to the main test above.

Instruction conducted by: The researcher himself

Course Title: Human Values Integrated Instructional Model

Course Description:

The purpose of education.

Education vs. Educare.

Human Values Integrated Learning Concept:

The five senses and the learning process. Interpretation of the meaning of the stimuli received. The conscious mind and the sub-conscious mind.

Making use of the sub-conscious mind in the learning process. Control of the emotions. Calming the mind. Meditation. Intuition. The super-conscious mind. The sixth sense. Love and compassion as the central theme for the learning process. The environment.

The learning brain.

Integrated instruction.

Objective:

After completing the course, the student will

1. know himself/herself better.
2. be inspired to change his/her own life and have more human values.
3. better understand the process of learning.
4. be able to apply the process of learning to his/her own life.
5. be able to use the human values integrated instructional model in teaching others.

Content of the course each week

June 3	Pre-test The purpose of education. Education vs. Educare.
June 10	Human Values Integrated Learning Concept.
June 17	Continuation of the Human Values Integrated Learning Concept.
June 24	The learning brain. Human Values Integrated Instruction.
July 1	Review of the course. Questions and answers. Discussion. Post-test.

Methodology: Lecture, discussion and inspiring the learner.

Method of Instruction:

1. Prayers in the form of singing	2 minutes
2. Meditation	
Awareness of the breath	2 minutes
Light meditation	6 minutes
3. Interactive lecture and discussion of the course content	90 minutes
4. Summary and assignment	10 minutes

Teaching aids: LCD projector, power point presentation, cassette tape player

The result of the test : In the pretest and posttest, students responded to the question “What do you want most in your life?”, as follows.

Student	Pretest	Posttest	Marks	
			Pretest	Posttest
1	Joy and success in education, family and in future jobs	Help family and relatives	1	2
2	Happiness for oneself and those around us.	Desire nothing	3	10
3	Successful in life	Happiness, everyone be happy and full of love	0	3
4	Happiness	Sense and mind control	0	9
5	Peace and joy, love and warmth in the family	Want everyone to be happy, be a good teacher helping students to become good.	1	8
6	Help the family to be full of comfort and joy	Help the family to be full of comfort and joy	4	4
7	Successful in one's job, happiness in the family, a good person in society.	Everyone in the world be full of love and compassion	3	8
8	Happy family	Lead a peaceful life and be useful to society	4	7
9	Self sufficient life, use of knowledge for one's benefit, family and society	Enlightened in all things, practice so as to be useful	3	9
10	Happy life, warm family, do things to make our parents proud	A good person in thought, word and deed. Happiness for all living things.	1	8
11	Want funds to buy material for teaching children in rural area	Live with good health in body and mind. Make our life and other's full of values.	3	4

12	Happy life, help parents and relatives to be happy	Detachment	2	10
13	Happy life, take care of parents and make them proud	Have a happy life and not create problems for others. Take care of parents.	1	1
14	Happy in society, study at a high level	Be a good person as well as others and the world full of peace	0	8
15	Teach children in rural area to realize the value of their life	Peace for the world. Discover the truth of life.	7	9
16.	Successful life; happy; not creating problems for others.	Equanimity; loving	0	9
17.	Achieve good marks in learning so as to make parents proud.	Know oneself; live a simple life; love and compassion.	0	9
18.	Happy; successful in life; simple and warm family.	Lead a simple life; everyone live together in peace.	1	7
19.	Happy; all wishes come true; family and friends are happy.	Making life worthwhile; family and friends are happy on the basis of self satisfaction.	1	6
20	Smile and joy everyday; good feeling towards one another.	Human excellence; righteousness; love and compassion; solving problems using peaceful means.	4	9

Table 7 Average score for pretest and posttest

	Pretest	Posttest	Increase	% Increase
Total marks	39	140	101	259
Average Score per person	1.95	7.0	5.05	259

Questionnaire at the end of the course

The questionnaire is shown in Appendix1. There are three questions for which the students have five choices: very much, much, fair, little and none. To obtain some quantitative measurement, marks are given as follows:

Very much =4; much = 3; fair = 2; little = 1; none = 0

There were 22 students and the reply were as follows.

1. Question 1. After listening to the talk on the Model, you have gained more knowledge and understanding of the learning and teaching concept.

Very much:	10 students	40 marks	
Much:	12 students	36 marks	
Total:	22 students	76 marks	86% of maximum score

The maximum score is $22 \times 4 = 88$ marks.

2. The Model is in agreement with the National Education Act, B.E 2542 (1999)

Very much:	10 students	40 marks	
Much:	12 students	36 marks	
Total:	22 students	76 marks	86 % of maximum score.

3. The model can be used in giving instruction

Very much:	17 students	68 marks	
Much:	5 students	15 marks	
Total:	22 students	83 marks	94% of maximum score

Conclusion

All except for two of the students showed positive changes in attitude. The marks obtained by the students in the pretest and posttest are as shown in the graph below.

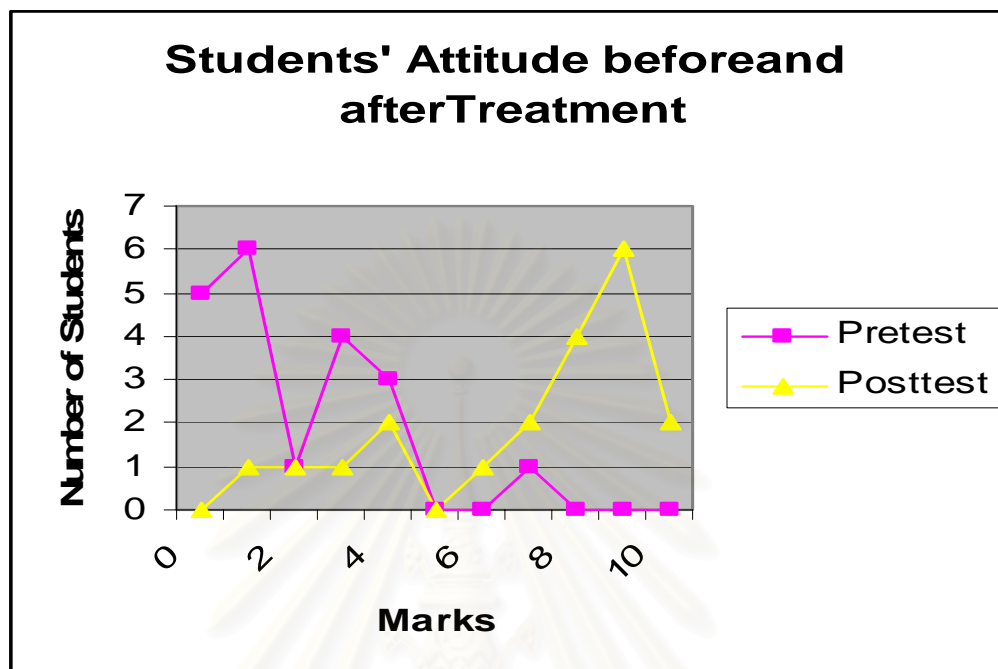


Fig. 7.1 Students attitude before and after treatment.

6.3 Tests Conducted on Children of the 5th Grade in a Primary School

School where the test took place: Anubal Lamnarai, Sub-district of Lamnarai, Chaibadam District, Lopburi Province

Treated Class: Grade 5/5

Control Class: Grade 5/1

Period of Test: July 22, 2003 to September 23, 2003

Duration of Test: 1 hour/week altogether 9 hours (there was a national holiday during this period)

Variables:

Independent Variable: Human Values Integrated Instructional Model

Dependent Variable: Students' behavior

Evaluation: There were both a pretest and a post test. Evaluation was done by the three groups as shown.

1. Self-evaluation by the students.
2. Evaluation by parents
3. Evaluation by class teachers

Research Instrument: The questionnaire used in the evaluation by the three groups are as shown in Appendix .

Instruction conducted by: The researcher himself

Method of Instruction:

- | | |
|--|------------|
| 1. Prayers in the form of singing | 2 minutes |
| 2. Meditation | |
| Awareness of the breath | 2 minutes |
| Light meditation | 6 minutes |
| 3. Thematic approach based on the interest of the students | 30 minutes |
| 4. Students discuss the human values that they have understood | 10 minutes |
| 5. Summary and delegating home work | 5 minutes |

The instructor (the researcher) asked the students what the students were interested in. The students agreed on two topics which they were most interested in.

1. The exploration of the planet Mars
2. The movie entitled "Behind the Picture"

These two topics became the themes of discussion. Each theme took four periods to cover. In case of the movie, this was shown on the screen for the students to see.

The most important part of instruction is to inspire the students

The result of the test

The result could only be used in cases where there was participation in both the pretest and the posttest.

The number of responses with both the pretest and posttest are shown below:

Evaluation by	Test Group (Class 5/5)	Control Group (Class 5/1)
Students	29	32
Parents	18	8
Teacher	27	26

The average mark per student is as shown in the following table:

Table 8 Average mark evaluation for treated group and control group

	Class 5/5 (Treated group)			Class 5/1(Control group)		
	Pretest	Posttest	% Increase	Pretest	Posttest	% Increase
Students	47.59	47.83	+0.5%	44.25	46.56	+5.2%
Parents	49.61	53.89	+8.6%	43.13	41.88	-2.9%
Teachers	50.89	68.07	+33.8%	46.12	47.58	+3.2%

Conclusion

With the permission of the administrator of the school, the researcher took a class in morality, ethics and Buddhism for 9 hours in a class of children age between 11 to 12 years. There was a control group of a different class of the same grade and age group of children. Only the class teachers of both the treated group and the control group are fully aware that this is part of the research to develop an instructional model. Parents and students are not aware of the objective.

The main difference between the treated class and the control class is the use of a part of the Human Values Integrated Instructional Model developed in Chapter 6. There are obvious limitations to the full use of the Model because of the short time available and there is no control of the environment. The salient points used in the treated group are as follows:

- 1) Prayers and the Light Meditation were used at the beginning of each class.
- 2) The teacher (researcher) used the method of inspiring the learner.
- 3) An atmosphere of peace, love, care, freedom and safety was created in the classroom.
- 4) The teacher created a student-centered classroom where children decided what they wanted to learn and how they want to learn. They are free to ask questions or make comments whenever they wish.
- 5) Human Values are an integral part of all the classes.
- 6) Human Values are not taught but are brought out from within the child.
- 7) Students are kept happy. There is joy in learning. Students are smiling and laughing. They are very interested in what they have themselves decided to learn.
- 8) Socratic Method is often used to stimulate discussion and to bring out the values.

9) Collaborative learning was encouraged. Students learn to share what they know and understand with others.

The same test was used in both the pre-test and the post-test and the same was used by the students, parents and teachers. Class teachers knowing that this was a test of the behavior of the students, observed the students' behavior throughout the period. The result evaluation by teachers showed that there was quite a big change in the behavior of the students in the treated class (33.8%) where as the control group there was a change of 3.2%. There was quite a low response from parents. 62.07% of the parents in the treated group responded whilst in the control group only 25% of the parents replied with the questionnaires. The result was that parents believed that the children in the treated group improved by scoring 8.6 % higher marks whereas the control group was a little worse with a negative 2.9%. The evaluation by the children themselves did not correlate with the evaluation of the teachers and the parents. On observing the children, they were unsure of what answers to give and some were asking their friends. In the treated group, the children said that there was no significant change as the result shown a change of 0.5%. The control group however showed an increase of 5.2 %. Perhaps the reason for this is that the questions may be too difficult for them to answer at the age of 11 to 12 years.

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Chapter 8

Conclusion of Research, Implications and Recommendations

Research Findings

Phase 1: Other Learning Theories

The following theories are compatible with the Human Values Integrated Learning Concept and are useful in the development of the Human Values Integrated Instructional Model.

- 1) Theory of Humanistic Mental Discipline – Plato and Aristotle
- 2) Theory of Natural Unfoldment – Rousseau, Froebel and Pestalozzi
- 3) Theory of Intellectual Development of Bruner
- 4) Learning Theory of Carl Rogers
- 5) Learning Ideas of Combs
- 6) Learning Ideas of Knowles
- 7) Learning Ideas of Faure
- 8) Information Processing Theory – Klausmeier
- 9) Theory of Multiple Intelligences – Gardner
- 10) Theory of Cooperative or Collaborative Learning – Slavin, David Johnson and Roger Johnson
- 11) Theory of Educare – Sri Sathya Sai Baba, Chancellor of the Sri Sathya Sai Institute of Higher Learning, India

Most of the above were discussed at the end of Chapter 5. The Information Processing Theory was discussed in Chapter 3. All these ideas are incorporated in the Human Values Integrated Instructional Model.

Phase 2 Documentary Research

1) Training of teachers in the Human Values Integrated Learning Concept

Documents were found since the concept was first propagated in Thailand in 1987. Evaluation forms numbering 7,854 were found on the training in various parts of Thailand. The teachers (92.6%) confirmed that the training was very good or good. The content of the training (the Human Values Integrated Learning Concept) was good or very good (92.3%). Teachers (86%) can apply this to teachings in their schools. Teachers (74%) found the concept useful in their life. The teachers further suggested that this type of training should continue to all sections of society.

2) Documentary Reports of Sathya Sai Schools in other Countries

The examples of four schools from Venezuela, Singapore, Kenya and Zambia were given. Examples of the transformation taking place in the students, teachers, and parents were given. All are very positive feedback on the learning concept.

3) Past Foreign Students trained in Thailand.

Documentary reports were obtained from 25 former students from 17 countries (Australia, India, Indonesia, Israel, Holland, Japan, Malaysia, Mexico, Morocco, Qatar, Singapore, Spain, Sri Lanka, Sweden, UK, USA, and Venezuela). All 100% said that they were transformed as a result of their stay in Lopburi, Thailand. They have attributed the cause to many things including, the love, prayers and meditation, examples of the lecturers, the kindness of teachers and children in the School. They have derived a lot of benefit in their life.

4) Literature related to the Human Values Integrated Learning Concept of the Researcher

The first paper on the Human Values Integrated Concept was printed in 1991 in the Teachers handbook on Sathya Sai Education in Human Values, published by the Sathya Sai Foundation of Thailand. The concept was fully explained in the book "The Five Human Values and Human Excellence" published by the Sathya Sai Institute of Sathya Sai Education (Thailand) in 1997. Since then there have been translation in Portuguese, Chinese, Japanese, Bahasa Indonesia, Lao, French, Russian and German. In 2000, an educator from the UK and Zambia, Victor Krishna Kanu presented a paper at the International Conference on Human Values in India and referred to the concept as the Jumsai Model.

Thus, it has been shown that the Human Values Integrated Learning Concept has been widely accepted internationally.

Phase 3 Ex Post Facto Research

1) Study of students presently studying at the Sathya Sai School in Thailand.

Study of 286 students still studying at the time of the research showed that they have all transformed by exhibiting more human values. The primary school children have Right Conduct and Love at the top of the list, whereas the secondary school students have Peace as the most important value. The causes are attributed to good teachers at the top of the list for primary school children. Prayers and meditation are at the top of the list for secondary school students. Other causes are friends and the school atmosphere.

2) The Study of Teachers in the Sathya Sai School

All have found their life changed and are having more Human Values. The causes are daily prayers and meditation, fellow teachers and loving children, the school atmosphere and example of the leader in the school.

3) Study of Former Students of the Sathya Sai School

In conclusion, the Sathya Sai School had started to implement the Human Values Integrated Instructional Model since the year 2003. Prior to that, the Human Values Integrated Learning Concept has been in effect right from the beginning in 1992. Studies of the children at the school have shown the impact on them bringing out the Five Human Values into their lives. This has also been shown with former students of the School.

All the respondents have exhibited more Human Values in their life. Parents (88.9%) confirmed that it still has an effect on the children's daily life. Parents also said that their children (94.4%) can merge in their new society without problem. The causes of the Human Values are attributed to teachers, the environment, activities in the school and their friends. From the questionnaires, the former students have been able to retain the good habits and refrain from negative influences of the society.

Phase 4 Development of the Human Values Integrated Instructional Model

From the studies made in phases 1 to 3, the Human Values Integrated Instructional Model was developed.

Phase 5 Feedback from Teachers and Educators

The Human Values Integrated Instructional Model developed in phase 4 was then presented to teachers and educators in Thailand and other countries

to receive feed back on the model. The suggestions received will then be used to modify the model.

Thailand:

The resulting answers to the questionnaires from 824 respondents shows: a good understanding of the Human Values Integrated Instructional Model (86.16%); that the Model fits in well with the National Education Act B.E.2542 (1999) (90.29%); that the Model can be used in instruction in the class (88.35%); and the Model can be applied to the daily life of the teachers (81.74%).

Other Countries:

The Human Values Integrated Instructional Model was presented in seminars in Fiji Islands, Indonesia, Kazakhstan and China. In case of Fiji Islands and Indonesia, the Ministry of Education invited the researcher to give the seminar. In Kazakhstan, it was the First Lady who made the invitation. China was represented by the local education authority of the Province of Guandong who made the invitation. Teachers and academics numbering 778 persons responded to the questionnaires.

They have a good understanding of the Human Values Integrated Instructional Model (92.00%). The Model can be usefully applied in the classroom (92.7%). They are motivated to apply the model to their profession (90.6%). They are motivated to apply the Model in their daily life (93.5%).

In both Thailand and the four countries, there was a very high support of the model. There were no suggestions to alter the model in anyway. There were suggestions only on arranging more seminars so that more teachers will gain knowledge of the Model.

Phase 6 Testing of the Human Values Integrated Instructional Model

1) Test in the Faculty of Education, Chulalongkorn University

Second year undergraduate students were given lectures on the human Values Integrated Instructional Model by the researcher. The period of test was only five weeks with two hours per week of instruction. There was a pre-test and a post-test to see if there is any transformation, using a simple test to measure the degree of selfishness in a scale of 0 to 10. Scoring 0 means there is complete selfishness. Scoring 10 means complete absence of selfishness.

The pre-test showed an average score of 1.95. After the treatment, the students showed an average score of 7.0. Thus there was a 259% increase in the score indicating that a large transformation had taken place amongst these students.

2) Test at the primary level of education

A government school in the sub-district of Lamnarai, the district of Chaibadan in the province of Lopburi was chosen as a test site. Children aged between 11 and 12 years in grade 5 was chosen for the test. The treated class was grade 5/5 and the control class was 5/1. There was a pre-test and a post-test. Only nine hours of instruction was given, but the result as evaluated by class teachers and parents showed a change in the treated class as compared with the control group.

In conclusion, the tests of the Human Values Integrated Instructional Model on both at the undergraduate level and primary level showed the effectiveness of the Model in bringing out Human Values in the students and bringing about a transformation in the students.

Implications

The Human Values Integrated Learning Concept obtained through intuition, has gained wide acceptance around the world. The researcher then develops the Human Values Integrated Instructional Model which was then tested. Clearly, this Model is shown to be very effective in bringing out Human Values and creating a transformation in the learner.

In Thailand where education reform is rapidly progressing especially in the field of information technology, but the Constitution of Thailand requires that education must impart values integrated knowledge. The main problem has been to find an effective method of instruction that produce good citizens of the country. There is no denying that there is a decline in morality every where throughout the world. Many governments are looking for an effective way to reverse the trend in society. It is recognized that education is one effective way to change the future because children are the future citizens of the country. Thus it is the view of the researcher that the model developed in this dissertation will provide the means to reverse the trend in society.

The Model is not difficult to understand. The training of teachers in Thailand and other countries have demonstrated that one day seminar will give an understanding of the model. However to teach children effectively, the teachers have to undergo a process of transformation also. The teachers who have come from various parts of the world to be trained in Thailand for a period of ten weeks have been shown to have undergone the process of transformation which will give them motivation and inspiration to work for the benefit of the children and bring about transformation in the children. It has been demonstrated also that children and teachers who have undergone transformation will retain the values gained and will have a greater immunity to the negative effect of society.

There is a very important implication for the researcher in finishing the dissertation. For now the real work has to begin. A text book has to spell out the methodology of the model so as to be able to guide teachers and educators in Thailand

and other countries. Extensive training of teachers will now start. There will be a great demand for this Model.

Recommendations

1) All governments should take up the task of transforming children and youths of the country. In so doing, teachers will also be transformed. Because children are transformed, they will in turn influence their parents in the home to transform. That means the community and society will be transformed. This will ensure peace for the whole world.

2) Teachers have the most important task that is to transform the students under their charge. The teachers hold the future in their hands. But the teachers have to change themselves first.

3) Parents are the teachers at home. Parents and teachers have to work together to achieve success in this task of helping their children to find peace in the world.

4) Governments should give full support to this effort to transform society. The best investment for the future is the investment in education for children and youths.

5) Governments should create an environment conducive to the learning process that will produce good people in society rather than great people without Human Values in society.

6) To succeed in this learning process, every section of the society should also be engaged in the learning process. We must have learning children, learning teachers, learning school, learning parents, learning community, learning society, learning government, learning countries – it must be a world of learning.

7) Leaders should be an example of Human Values so our children will have role models to emulate.

8) Education without character (Human Values), commerce without morality, science without humanity, politics without principles, all are useless and positively dangerous.

9) The Human Values Integrated Instructional Model has been tested in this research, the researcher now urges all governments to try it and test it to help bring out the Human Values in all people.

The researcher is willing to help train trainers from all countries without charging any fees for a period of 10 weeks at the Sathya Sai School, Lamnarai, Chaibadan, Jharkhand Province. Trainers are expected to be transformed and armed with the necessary skills to train other teachers in their respective areas or countries.



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Appendices

Appendix 1 Questionnaires in Thai used in Phase 5 when the Human Values Integrated Instructional Model was presented to teachers and educators in Thailand.

แบบสอบถาม

รูปแบบการเรียนการสอนแบบบูรณาการคุณค่าความเป็นมนุษย์

๑. เพศ () ชาย () หญิง
๒. ระดับการศึกษา () ปริญญาตรี () ปริญญาโท () ปริญญาเอก
() อื่นๆ.....
๓. อายุ ปี
๔. อาชีพ
() ครูปฐมวัย () ครูประถมศึกษา () ครูมัธยมศึกษา () ผู้บริหารโรงเรียน
() อาจารย์ในระดับอุดมศึกษา () นิสิตนักศึกษา () พระ / นักบวช
() ผู้ปกครองและตัวแทนชุมชน

ตอนที่ ๒ ความคิดเห็นเกี่ยวกับรูปแบบการเรียนการสอนแบบบูรณาการคุณค่าความเป็นมนุษย์

๑. ท่านได้มีความรู้ความเข้าใจมากขึ้นกว่าเดิมหลังจากได้ฟังการบรรยาย
() มากที่สุด () มาก () พอสมควร () น้อย () ไม่ได้อะไรเลย
๒. สอดคล้องกับ พรบ. การศึกษา พ. ศ. ๒๕๔๒
() มากที่สุด () มาก () พอสมควร () น้อย () ไม่สอดคล้องเลย
๓. สามารถนำไปใช้ในการเรียนการสอน
() มากที่สุด () มาก () พอสมควร () น้อย () ใช้ไม่ได้เลย
๔. สามารถนำไปใช้ในชีวิตประจำวัน
() มากที่สุด () มาก () พอสมควร () น้อย () ใช้ไม่ได้เลย

๕. ข้อเสนอแนะในการปรับปรุงรูปแบบการเรียนการสอนแบบบูรณาการคุณค่าความเป็นมนุษย์ให้ดียิ่งขึ้น
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Appendix 2 Questionnaire used in Phase 5 of the research after the Human Values Integrated Instructional model have been presented to foreign teachers and educators both in Thailand and abroad.

Questionnaire

Human Values Integrated Instructional Model

Date:.....

1. Sex () Male () Female
2. Education () Bachelor Degree () Master Degree
 () Doctorate Degree () Other qualifications.....
3. Age.....
4. Profession () Teacher, Pre-school () Teacher, Primary School
 () Teacher, Secondary School () School Administrator
 () University Lecturer () University Student
 () Monks/ Clergy () Parents/ community Representative
5. Nationality.....

Section 2: Opinion

1. After listening to the talk on the Model, you have gained more knowledge and understanding of the learning and teaching concept.
 () Very much () Much () Fair () Little () None
2. The model can be usefully applied to teaching in the classroom.

Very much Much Fair Little None

3. You are inspired and motivated to apply this model in your profession.

Very much Much Fair Little None

4. You are inspired and motivated to apply this model in your own daily life.

Very much Much Fair Little None

5. Suggestions for improving the Human Values Integrated Instructional

Model: _____

Appendix 3 Questionnaires used in Phase 6 of the research when doing pre-test and post-test after treatment of children at Anubal Lamnarai

Personal Details

Name of student:.....

Date of birth:.....

Sex: Male Female

Race:.....

Religion:.....

Class:.....

Profession of parents or guardians:.....

Date of evaluation:.....

Questionnaire

The following statements present the behavior of the student. Please circle the number which you feel represents the behavior of the student at the time of the evaluation.

0 The statement is not true at all

1 The statement is partially true some of the time

2 The statement is true most of the time

1. Good effort in learning	0	1	2
2. Responsible person in performing the duty	0	1	2
3. Sharing things with others	0	1	2
4. Caring for others	0	1	2
5. Get on with others well	0	1	2
6. Love and compassion towards animals	0	1	2
7. Happy person	0	1	2
8. Speak the truth	0	1	2
9. Respect for teachers	0	1	2
10. Clean and well dressed	0	1	2
11. Healthy living	0	1	2
12. Good concentration in doing work	0	1	2
13. Wiling to help others when opportunity arises	0	1	2
14. Taking good care of one's property as well as other's	0	1	2
15. Punctual person	0	1	2
16. Speak politely	0	1	2
17. Knowing what is suitable for the occasion	0	1	2
18. Making good effort in doing work	0	1	2
19. Showing good initiative	0	1	2
20. Making good effort in practicing meditation	0	1	2
21. Good manners	0	1	2

22. There is patience and good effort in general	0	1	2
23. Self confidence	0	1	2
24. Engage in arguments often	0	1	2
25. Sleeping in classroom	0	1	2
26. Stealing	0	1	2
27. Lacking concentration and being forgetful	0	1	2
28. Not doing work properly	0	1	2
29. Threatening person	0	1	2
30. Making a lot of noise	0	1	2
31. Engaging in fights with others	0	1	2
32. Bad temper	0	1	2
33. Lack of self control	0	1	2
34. Unwilling to listen to others' point of view	0	1	2
35. Often teased by others	0	1	2
36. Egoistic	0	1	2

Total marks for statements 1 – 23

Total marks for statements 24 – 36

It is to be noted that statements 1 – 23 are positive behavior and statements 24 – 36 are negative behavior.

Appendix 4 The following results were details of Phase 3 research on students of the Sathya Sai School

Table 9. Percentage of reporting of values classified by values and grades

CHANGES THAT HAVE TAKEN PLACE SINCE COMING TO THE SCHOOL													
Human Values	Grade	Percentage of reporting											
		1	2	3	4	5	6	7	8	9	10	11	12
RIGHT CONDUCT													
Speak politely	16					14			10	12			
Stop mistreating others	16												
Cleanliness	16												
Self reliance	16											14	
Humility			22										
Punctuality													
Save Money													
Good manners						14							
Discipline				6	17		12					21	
More responsible		8.3		18	17	37	15	21	14	29	14		
Self-confidence			4				9			12	14	25	
Work harder									29				
Respect for the rights of others									10				
Becoming leaders													25
PEACE													
Thinking before doing						9							
Peaceful and calmness		20	4	9	21	23	24	33	19	18	43	50	
Concentration			19	15			12	8		29	14		
Patience				9			18		10		14		
Good memory							9		14				
Self control									10				
LOVE													
Giving					14								25
Helping others	8	34	11			23							
Less selfishness	4					9							
Loving friends		25											
Get on with others					24	14	9	8					
Love and compassion		13	41	12	31	9	15	17		18	29		
Sharing	12							8					
Better understanding									14				
Love and unity													
TRUTH													
Telling the truth	12												
Understand the process of learning			4										
Greater faith in Buddhism				6									
Determination to study		13				11	9			24			
Improved learning			11	6	21	34	9		10			25	
Better reasoning							12						
Careful thinking								8					
Planning of life									10				
Realize the purpose of life								8					
Ability to solve problems											14		
NON-VIOLENCE													
Friendliness													
Not hurting/killing animals		25		12									
Love trees/nature		13											
Not taking advantage of others			11										
Better understanding of life													
Unity											14	25	
Number of Students	25	24	27	33	29	35	33	24	21	17	14	4	

Biography

Name: Art-ong Jumsai Na Ayudhya

Education

B.A. (Hons), M.A. in Mechanical Sciences, Cambridge University, UK.

Ph.D. in Communications, Imperial College of Science and Technology, London University, U.K.

Past Experiences

1966 – 1973 Senior Lecturer at the Faculty of Engineering, Chulalongkorn University

1973 – 1988 Marketing Director, Thai Plastic and Chemical Co., Ltd.

Managing Director, Thai Chipboard Co., Ltd.

Corporate Relations Manager, Caltex Oil Co., Ltd.

Director of the National Research Institute of Science and Technology

1988 – 1995 Member of Parliament

Deputy Chairman of the House Committee on Education

Secretary of the House Committee on Science, Technology and Environment

Executive Director, Asia Pacific Parliamentary Union

Executive Director, Asean Parliamentary Union

Secretary to the Foreign Minister

1996 - Chief Administrator of Sathya Sai School

Director of the Institute of Sathya Sai Education

Visiting Lecturer on Human Values Education at many Universities in Thailand and abroad.

Special Experience

Participated in NASA's Viking Space Project in the design of subsystem of the automatic landing device.

Expert in the National Research Council on rockets for use in the Artificial Rain Making Project.

Awards

1984 Top Scientist of the year

Publications

1991 Handbook for Teachers in Education in Human Values

1997 The Five Human Values and Human Excellence

1997 Integration of Human Values in Mathematics and Sciences