The Initial Impact of Instruction Development Intervention on
Student's Behavior, and Discipline in Learning Computer Subject:
A Case Study in Primary 3 at Saint Gabriel's College of Thailand

Sumitra Trakulkasemsiri

An Action Research Submitted in Partial Fulfillment of the Requirements
for the Degree of Master of Management in
Organization Development and Management
Faculty of Graduate School of Business
Assumption University
Academic Year 2010
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Action Research Title	The Initial Impact of Instruction Development Intervention on Student's Behavior, and Discipline in Learning Computer Subject: A Case Study in Primary 3 at Saint Gabriel's College of Thailand
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The Graduate School/Faculty of Graduate School of Business, Assumption University, has approved this action research as a partial fulfillment of the requirements for the Degree of Master of Management in Organization Development and Management.

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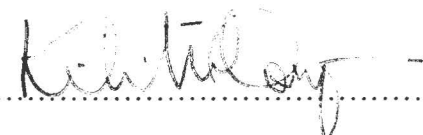
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ABSTRACT

The main purpose of this study is to determine the impact of instruction development intervention on student's behavior and discipline in learning computer science subject particularly in primary 3 at Saint Gabriel's College of Thailand.
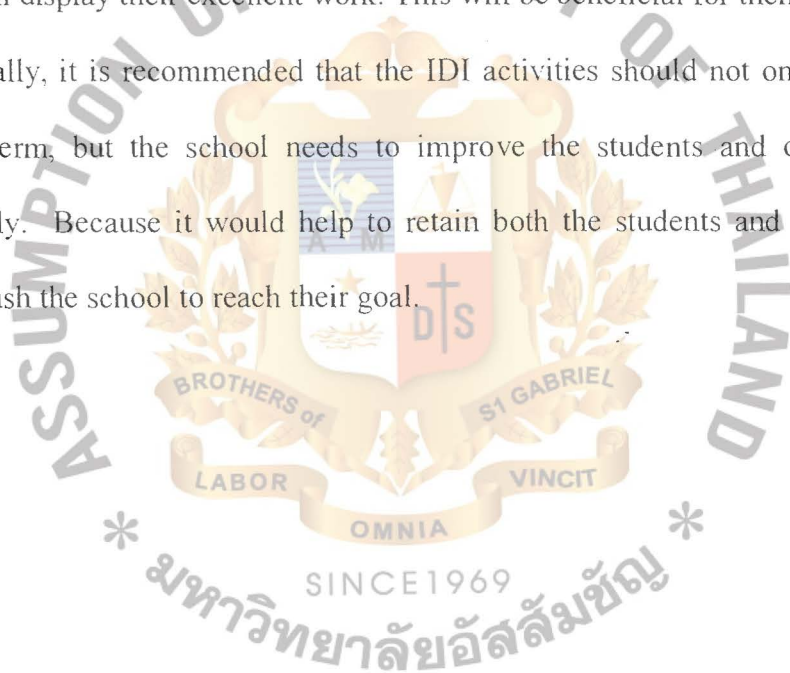
This study is beneficial for computer teachers to design teaching methods. Using teaching materials that are applied to teaching and learning that can change the attitudes of students in third grade from the behavior of using computers for playing games. Change in the use of computers for learning is valuable. The researcher as a computer teacher in primary 3 level has found that 80 % of students in computer class always request permission from teachers for playing games. In the first hour of the computer class, the researcher allows students to play games after they finish their work. It appears that students take the time to work for a few minutes to having time to play computer games. Therefore, this study showed that targeting the students to finish their work before playing games is not the right way for changing student behavior to study. So, the researcher has changed the way of teaching and learning in the computer class by aiming at to modifying behavior from playing computer games to the benefits that students should get from a computer.

For the research design made use of action research with a pre and post IDI comparative analysis of the results of assessment after the IDI. The SPSS Program was used to analyze the data. Moreover, respondents are 26 teachers in primary 3 there are; number one the Head of primary 3 level, number two is the Head of Career and Technology Department, number three is co-teacher, number four are 6 computer team teachers in primary level and number five are 17 teachers in primary 3. The totals of respondents are 92 persons. In addition, the researcher uses intervention process. Theories based on the basic needs of the Maslow. This is the essence of

human nature that all people have basic needs. Young children also have the same basic needs such as they love to play computer games, or a romp in the field. But do not like to be quiet for a long time; do not concentrate on working for a long time. So, the researcher tries to assign activities to students' free time to benefit. Not just to have fun all the time. Instead, they have to work on activities by ideas and the activity must challenge their ability.

After the intervention process, the researcher found that 90% target students group with enthusiasm and concentrate on work all the time. Moreover, many students can display their excellent work. This will be beneficial for them.

Finally, it is recommended that the IDI activities should not only be done in the short term, but the school needs to improve the students and other teachers continuously. Because it would help to retain both the students and their teachers who can push the school to reach their goal.

ACKNOWLEDGEMENTS

Finally thanks, to MMOD students in my class for the instructions of learning, research and presentation to the advisory committee. Moreover, I would like to thank my parents and everyone in my family for their encouragement throughout the study.

Any mistakes that remain in this thesis, the researcher accepts as her own and apologizes for the fallacy that occurred in the study.

Sumitra Trakulkasemsiri

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CHAPTER 1

THE POTENTIAL CHALLENGE FOR CHANGE

1.1 Introduction of the Study

This chapter represents the global context, as well as Asian and the organization context. The background of the study and connects one organization which as selected for this study, together with the current situations presented for a better understanding of the context for this study. Research objectives, statement of the problem, research questions, research hypothesis, and significance of the study, scope and delimitation of the study. These are presented in this chapter. One part of this chapter includes definition of terms used throughout the paper is done to ensure common understanding of concepts and processes of the study.

The importance of education does not mean learning only academics. It also means learning about the life of the world around us. Develop a vision of life that allows people to create innovative ideas for their own development. In the words of that "Education is the process of thinking". Education makes people see and understand what nothing is wrong. Education is not in textbooks but education is about lessons in life.

Education is an important tool in the economic development of countries. Education makes people's dreams come true. Education gives an opportunity to work. So, Education of people in the Nation is very important.

The word "education" is learning, the pursuit of knowledge. When people have learned then, they will bring their knowledge to use in daily life. Learning is not

meant to learn from textbooks or in academia only but, means the instruction to people to know what they have never knows. Teaching is along with the evolution of human as teaching the behavior of human nature in order to assist each other in learning things for their daily life. Teaching is a natural human behavior which occurs generally.

The nature teaching model began to arise when scholars and thinkers tries to transfer those ideas of knowledge and belief by using unique talents and the art of teaching.

Teaching is a science that is most important to learn. Teachers have most important roles to help shape learning. The most successful teaching did not mean that students pass their exam only but, the success of teaching is in a student who has a quality life, which means people who have self-discipline.

Society which is consisting of quality personnel has self discipline. Social development will occur quickly, so the role of teachers today is responsible for teaching students the knowledge and integrity. Means to teach students self-discipline to have morals and be honest. (Science teaching: knowledge for learning process effective. Tisana Khammanee, Chulalongkorn University, 2552, p.2-3)

1.1.1 Global Context:

Education is one of the best development investments. It is transformational for individuals, families and societies. Education is critical to the achievement of all Millennium Development Goals (MDGs) and other development outcomes.

Education enables people to participate actively in their societies, increases access to employment and other sources of income and opens up opportunities. Education also delivers benefits in health, governance, productivity, gender equality and nation-building.

Achieving universal primary education and gender parity at all levels of education are Millennium Development Goals. While there has been some progress towards meeting these goals, worldwide at least 72 million children remain out of primary school and 250 million out of secondary school.

Globally there has been an improvement in gender parity yet inequality for girls remains an issue—of the 26 million children out of primary school in Asia and the Pacific, 16 million are girls.

Getting girls and boys to attend school is only part of the challenge. There is growing evidence that, even where enrolment targets are being met, children are not acquiring basic literacy and numeracy skills. The poor quality of basic education affects students by reducing their capacity to succeed in further education or employment. http://www.ausaid. gov.au/keyaid/education.cfm

1.1.2 Asian Context:

The history of education in Asia reflected and extended the influence and teachings of three major philosophical, religious traditions: Hinduism (including Buddhism), Islam, and Confucianism (including Neo-Confucianism). Over time, these traditions interacted with one another, although the interaction was not entirely mutual, nor did it blunt the cultural distinctions of the various regions of South Asia,

Southeast Asia, and East Asia. Indeed, while Buddhism exerted its widespread influence across East Asia from the third century B.C.E on, it never replaced the primacy of Confucianism. Similarly, although Islam infiltrated India from the eighth century C.E. on, the foundation of Hindu cultural traditions remained unshaken.

A middle region, Southeast Asia, was influenced by Buddhism and Confucianism, resulting in a unique blended educational experience. From the eighteenth century on, as Western culture came into the region, Asia's educational practices in general underwent a sea change that resulted in a previously unknown level of uniformity. Regional diversity, however, remains visible, reflecting the differences in political settings, cultural values, and economic development, making a comprehensive overview of education in Asia impossible. For this reason, the following discussion will deal primarily with educational practices in South and East Asia with a focus on exploring the ideological dynamics embedded within those regions and the impact of historical change from without. http://science.jrank. org/pages/7642/Education-in-Asia-Traditional-Modern.html

Education in Japan: When Japan opened herself to the world in 1868, one of the government's high priorities was catching up with Western standards in science and education. The Japanese education system was reformed mainly according to the German and French model which experts regarded as most suitable and advantageous.

After the Second World War, the Americans reformed the Japanese education system after their own that consists of six years of elementary school, each three years of junior and senior high school and four years of university or two years of junior college.

Compulsory education includes elementary school and junior high school. Over 90% of all students also graduate from high school and over 40% from university junior college. At universities the percentage of male students is higher than that of female students while the opposite is the case at junior colleges. The number of graduate university students is relatively low.

A characteristic of the Japanese school system is its entrance exams, and with them a high competitiveness among students. Most high schools, universities, as well as a few private junior high schools and elementary schools require applicants to write entrance exams. In order to pass entrance exams to the best institutions, many students attend special preparation schools (juku) besides regular classes, or for one to two years between high school and university (yobiko). The most prestigious universities are the national University of Tokyo and University of Kyoto, followed by the best private universities. http://www.japan-guide.com/e/e2150.html

Japan in the past through a serious crisis as World War II. So to see that, any country faced with domestic problems. Whether it about politics problem, government problem and so on. This would affect the quality of life of the population. The cause of the problems of mankind came from thoughts. So what challenges for people who do research in this research is on cognitive processes of humans. The idea of a matrix of human action is the beginning of human behavior. Researcher as a teacher therefore, the importance of teaching students who will grow up to be adults in the next day is they must be self-disciplined and known reason. Implantation on the self-discipline is difficult and takes time to change attitudes and behavior of people. So it is at the challenge of the teacher's ability.

In Beijing "Chinese People's fifty-year Anniversary of Victory over Japan Commemoration Capital University Students' Hwang Ho Big Chorus Rally" was open, and ten million students from 56 universities in Beijing participated. Also each university had the events with theme of the resistance against Japan such as theatrical contest, chorus contest singing songs of the resistance against Japan and putting the movies relating to the resistance against Japan on the screen. The elementary and middle school also had lecture meetings celebrating victory over Japan besides thought education. http://park.org/Japan/TokyoNet/aip/ HOT/EDUCATION/china2. html#para1

The education in India is strongly influenced by the state of political and economical affairs at the time. For example, in the second five year plan (1956-60) when heavy industries became the basic industries, the socialistic education was given and emphasized on conversion of basic education and secondary and higher educations. Also, when India saw the economic crisis and the school attendance rate fell in 1960's a big reconsideration on the whole education was done establishing the advisory committee including foreigners.

Today the system which was decided by the international conference party is resolved. It has 10-2-3 system and in some states it has 5-3-2 system or 4-3-3 system. The elementary education is divided into the first term and the latter term, and the diffusion of the first term is 83.7% and the latter 41.9%. The tuition fee of public school is free. The special curriculum for farm villages and minority races take effect and the hygiene and nourishment project is propelled. The secondary education is divided to the first term and the latter term, and the first term is for studying the extension of elementary education and the latter term is divided into the college

entering course and vocational education course to study. It is the characteristic that scientific education and talent education are done. The rate of the students to enter the first term is 24.6%. For the higher education, 137 higher educational systems aim at the improvement of the qualities of education and research in scientific technology. http://park.org/Japan/TokyoNet/aip/HOT/EDUCATION/india.html

1.1.3 Thailand's Context

Education in Thailand is provided mainly by the Thai government through the Ministry of Education from pre-school to senior high school. A free basic education of twelve years is guaranteed by the constitution, and a minimum of nine years' school attendance is mandatory.

Formal education consists of at least twelve years of basic education, and higher education. Basic education is divided into six years of primary education and six years of secondary education, the latter being further divided into three years of lower- and upper-secondary levels. Kindergarten levels of pre-primary education, also part of the basic education level, span 2–3 years depending on the locale, and are variably provided. Non-formal education is also supported by the state. Independent schools contribute significantly to the general education infrastructure.

Education is important for everyone in the world, population every race every religion, every country in the world because, education is a tool to develop people. When people have been developed, society will develop and the nation will also develop.

Processes of thinking are important factors that need to be developed alongside the learning of citizens in the nation. The education system of a country

will not develop specific technical knowledge only. However, it will promote training for the different populations in the nation to bring the knowledge gained in training to improving their work for a better life in future.

Therefore, cognitive processes, it is extremely important in the development of quality of life of people in the country. Nowadays, if the national population is not having creative thinking or also called "cannot think" or "lack creative thinking" the countries will not progress.

To encourage people in the country "Deem to be", have a rationalist and have creativity, they must receive training since childhood; starting from the school, family and adults, whether parents or teachers, must teach children to think rationally, teaching children to have their self-discipline. Encourage children to have good behavior, teach children to recognize their value, teaching children to use their free time to benefit or teach students to have enough quality.

1.1.4 Organization Context: Saint Gabriel's College Background

Saint Gabriel's College is administered by the Brothers of St. Gabriel. St. Gabriel's College was founded in 1920, by Reverend Brother Martin de Tour; moreover, he himself was the architect designing the building. On February 6th, 1922 the building was first used and name was "Red Building". The first time St.Gabriel's College has 150 students. From now on St. Gabriel's College aims to be a "World Class School," that produces the "Best Masterpiece Products." The institute must have the "Best Quality of teachers," "Happy Personnel at all Levels," and a conducive atmosphere to assure the best results of Saint Gabriel's College education, technological appliances, physical environment, cooperation between PTA(Parent-

teacher Association) & Alumni, appreciating local wisdom, caring for the neediest, and helping the less fortunate ones. St. Gabriel's College students are all boys ranging from primary 1 to secondary 6. (Age: 6 to 18 years old) Saint Gabriel's College separates students to 4 parts. The first part is from primary 1 to primary 3, the second part is from primary 4 to primary 6, the third part is from secondary 1 to secondary 3 and the last part is secondary 4 to secondary 6. From now on schools' philosophies are:

1. The purpose of man's existence is to know the Truth, to love and to search for it, which is the source of life and all knowledge.

2. The belief that a man justifies himself and his existence by the nobility of his work. This is expressed by the school motto: **LABOR OMNIA VINCIT**.

Saint Gabriel's College is situated on 565 Samsen Road, Dusit, Bangkok, Thailand 10300. School web site is www.sg.ac.th. There are 4 Brothers, 360 Thai teachers, 38 foreign teachers, 5,400 students, and 122 workers. The teachers are divided into 2 groups; teaching teachers and non - teaching teachers. There are 12 grade levels. These grade levels are primary 1 - primary 6, and secondary 1- secondary 6. Each level has 7 rooms. There are 63 – 65 students in each room. Saint Gabriel's College divided the organization structure into 5 parts. The first part is the Director's Office, the second part is the Academic Affairs, the third part is the Disciplinary Affairs, the fourth part is the Activity Affairs, and the fifth part is the Service Affairs. (see the figure 1.1)

Saint Gabriel's College Structure

Saint Gabriel's Foundation, Thailand

Parents & Teachers Association	School Director	Alumni Association

Headmaster

Office of the Director	Academic Affairs	Disciplinary Affairs	Activities Affairs	Service Affairs
- Information Technology - Research & Quality Auditing - Recreation Center - Teacher Welfare Fund - School bus Service - Policy & Planning - HRD -Accounting Management	-Curriculum Development **- Teaching Management** - Test & Evaluation - Document Product -Intensive English Program -Extra Curricular Program - Registrar Office	- Administrator Department - Self Discipline Development - Good Behavior Management - Student's Welfare - Guidance Center	- Democracy Providing - Music Center - Boy Scout Training - Military Training - Social Development - Community Relationship	- School Building - School Vehicle Management - Multimedia Development - Campus Ministry - Canteen Management - Library & Museum - School Bulletin - Healthy Development

Figure 1.1 : Organization Structure of Saint Gabriel's College

From figure 1.1 represents the management structure of Saint Gabriel's College. School provide the curriculum into two programs there are; 1) Intensive English Program for five subjects there are; Mathematics, Science, Social studies, English and Technology & Computer. 2) Basic Program for every subject by teaching in Thai language. All students have to learn both programs to make students achieve academic excellence in all aspects of learning, develop students knowledge and learning skills for their daily life.

1.1.5 Primary 3 Current Situation

The primary 3 level has 20 teachers dividing students into 8 rooms & each room has 65 students. Divide a subject into seven groups there are; Science, Mathematics, English, Thai language, Social, Physical and Technology&Computer. (See the figure 1.2) For the computer subject students are divided into a half room to learn the computer and the second half of the students will learn about technology for example in the first semester students number 1-33 will learn about computers and students number 34-65 will learn about technology. But, for the second semester students' number 1-33 will learn about technology and students' number 34-65 will learn about computers.

The current situation for students in primary 3 level is specific on the computer class. Students in room 7 are with the intention of learning. Some students are concerned with a short meditation but, most students try to learn and they are interested to use a computer. Students in room 8 issues rarely distracting but, they rarely listen to instructors and facilities. Most students in room eight, there are seven-eight years old which is younger than the normal age. The normal age of students in third grade is nine years as shown in chapter four. Most students in the computer class love to play computer games but do not like reading, especially reading materials for learning about how does a computer work or the work of various programs, a basic knowledge that students need to understand. This will lead to development of computer skills they will need to apply in their daily life in the future. Data supporting this idea as shown in chapter three are results of examination before learning, and classroom performance.
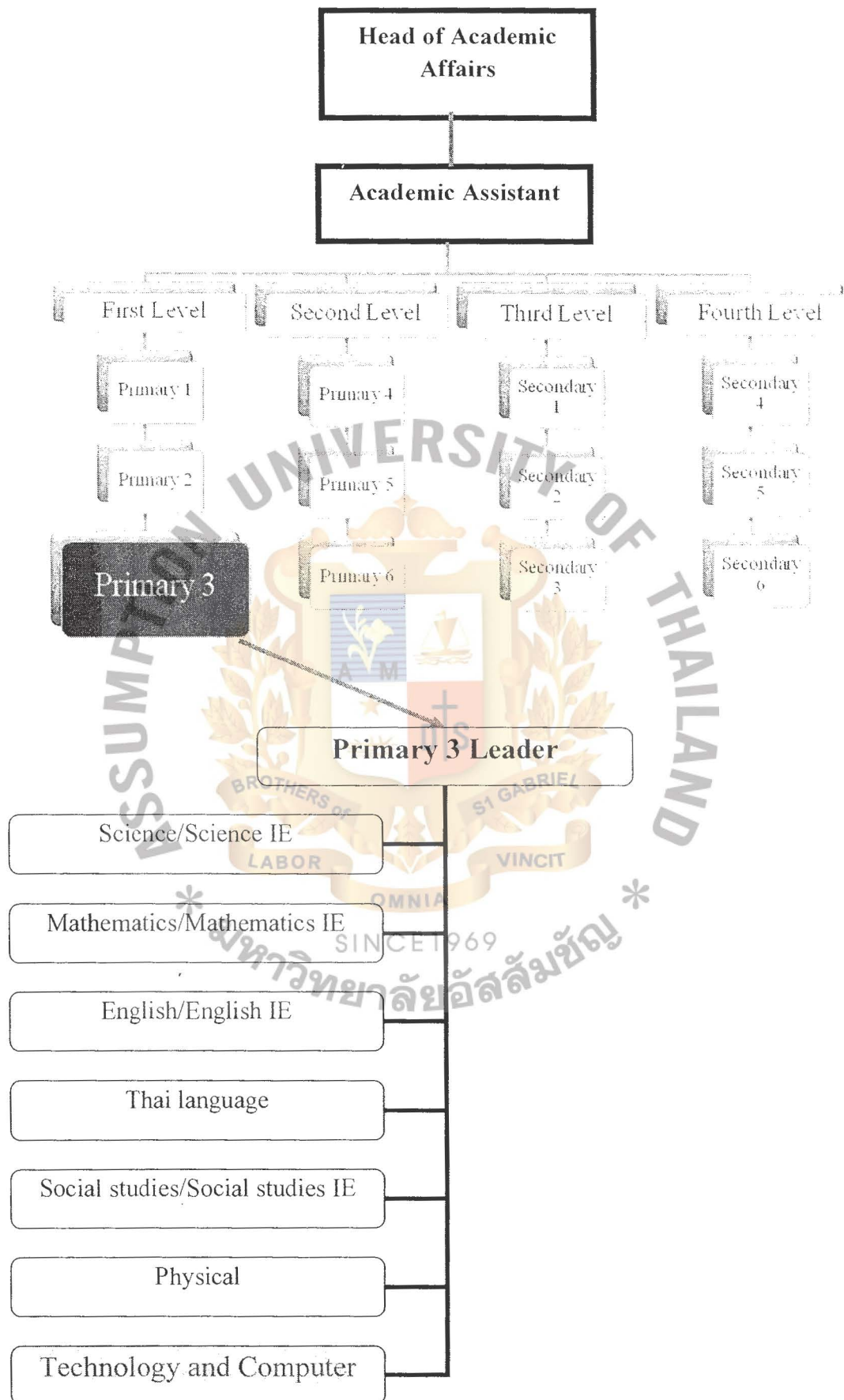
Figure 1.2: Organization Structure of Primary 3 Level

1.1.6 SWOT Analysis of Saint Gabriel's College

St. Gabriel's College is a famous school in Bangkok, evidenced by the number of students increasing every year as a result of the dedicated work of all staff in schools in take care students. School receive acceptance from parents. St. Gabriel's College has much strength that many parents would like to send their children to study here. In addition, schools also have weaknesses that need to be developed as shows in the table below.

Table 1.1: SWOT Analysis of Saint Gabriel's College

Strengths:	Weaknesses:
- Director has high vision and concentrate with education investment. - School management teams and teachers to potential add developed by major continuously as personnel qualified master degree graduate more consistently. - Student has high abilities. - Teachers are professional in their subjects and have opportunity to improve themselves. - School has an IPSLE programs for develop educational to be international standard. - School has sufficient funds to support various project or activities. **Area focus : Primary 3 room 7 and 8** - Director to promote and encourage every teachers develop their own quality of teaching in English for every subjects. - In each class, was invited professional teacher to teach and instructive as well.	- Student's failure to comply with regulations of the school. - Limited space for students in classroom. - Students are talkative in classroom. - About 20 % of students in the class have short concentrate in learning. - Teachers do not prepare before teaching. - Students do not participate in learning according to their needs. **Area focus : Primary 3 room 7 and 8** - Most students are intend to play computer games rather than learning about computer applications. - About 70% of students in the class do not have a typing skill. - Students do not have creative thinking but they always copy the ideas from their friends.
Opportunities:	**Threats:**
- Parents can support for school's activities. - Alumni to support the school activities. - A famous school.	- Competition from others school such as public schools or private schools. - Traffic jam around the school area. - There are many games shop and Internet cafe around school that can

• Students have a chance to study aboard. **Area focus : Primary 3 room 7 and 8** • Students have their own computer so, they can learn the use of computer skills by themselves for example; they can use programs that they have never use before.	attract students to play. **Area focus : Primary 3 room 7 and 8** • Most students are laziness in learning compute but, like to practice activities only.

Strengths

Saint Gabriel's College has a lot of strengths. Director's vision seems to be "top five in Asia" means that school would like to be "a world class school". School has a management team and teachers have been developed continuously with graduates in masters' degree qualifications increases continuously. Especially, teaching the Intensive English curriculum. That is the identity of the school.

Teachers have been developed continuously so, the Director sends many teachers to study abroad including learning masters degrees to improve their variety & knowledge skills. In addition, schools receive support from parents and alumni to create activities at various learning levels and including encouraging professionals from foreign to come to teach at schools. Students also have been developed continuously at full curriculum capacity especially to ethics, to have good manners, be healthy and have desirable characteristics as specified. Moreover, school is ready in terms of teaching and learning activities that students are focusing significant. Moreover, the school has improved environment conducive to learning and having the atmosphere of learning.

Weaknesses

Point to the weaknesses area of Saint Gabriel's College there are; most students who do not comply with regulations of the school. Each classroom has 60-65 students so; students have limited space in the class and also in school or the limited area for playing during lunch break. Some students are not interested to study such as; they talk too much in the class or have short concentration in learning. Some teachers do not prepare the lesson plan before teaching; this makes students lose the chance to learn. Besides this, students do not participate in learning according to their needs most students learn from the textbook.

Opportunities

Most students came from a rich family so; their parents always support everything such as; paying for teachers to teach them in a special class, paying for study abroad or purchasing equipments to facilitate learning. Moreover, the school's reputation results in parents wanting to send their kids to study here. Resulting of school has the opportunity to select students who are ready to learn.

Threats

School also has a trouble that is difficult to control as the competition from other public or private schools. Saint Gabriel's College is in Bangkok so; traffic jam is an obstacle to learning of student. There are many games shops and Internet cafés around the school that can attract students to play. Some students are fleeing the school to play games in the Internet Cafe.

Based on the SWOT analysis, it is observed that the weaknesses point of Saint Gabriel's College is student's behavior and discipline. The researcher as a computer

teachers realize that to get school's goal, we have to improved student's behavior and discipline that is why I choose this topic to study.

1.2 Research Objectives

1. To describe and analyze the current situation and learning performance of Saint Gabriel's College in terms of as "human social system" or "corporate living person".

2. To diagnose the current situation of Saint Gabriel's College in terms of student's behavior and discipline in learning computer subjects.

3. To identify and implement appropriate IDI's to improve student's behavior and discipline in learning computer subjects.

4. To determine the initial impact of IDI on student's behavior and discipline in learning computer subjects.

1.3 Statements of the problem

The main area of this study focused on the initial impact of Instruction Development Intervention on Student's behavior and discipline in learning computer subject. A case study in primary 3 room 7 and 8 at Saint Gabriel's College of Thailand.

1.4 Research Questions

1. What is the current situation of student's behavior and discipline in learning computer subject?

2. What are the appropriate Instruction Development Interventions (IDI's) for student's behavior and discipline in learning computer subject?

3. What is the initial impact of IDI on student's behavior and discipline in learning computer subject?

4. Is there any difference between Pre and Post of IDI on student's behavior and discipline in learning computer subject?

1.5 Research Hypotheses

Ho 1. There is no initial impact of IDI on student's behavior and discipline in learning computer subject.

Ha 1. There is initial impact of IDI on student's behavior and discipline in learning computer subject.

1.6 Definition of Terms

1.6.1 Student

Student is a person engaged in study; one who is devoted to learning; a learner; a pupil; a scholar; especially, one who attends a school, or who seeks knowledge from professional teachers or from books; as, the students of an academy, a college, or a university; a medical student; a hard student. http://www. brainyquote.com /words/st/student224972.html

1.6.2 Behavior

Behavior is a verb that expresses symptoms or interactions when faced with the stimulus or various other situations, express different symptoms such movement may be observed or measured, such as walking, speaking, writing, heartbeat. http://www.nwlink.com/~donclark/leader/leadhb.html

1.6.3 Student Behavior

Student Behavior – is observable and can be objectively measured. Many psychologists have therefore proposed that student behavior, such as making a correct response on a test or raising one's hand, be the basis for measuring education outcomes, communicating with teachers, and making recommendations to them. (David E. Hunt&Edmund V. Sullivan, 1974).

1.6.4 Discipline

Discipline is "the task of helping children learn to behave in acceptable ways within the family and within society". The term discipline does not mean punishment; it means "guidance" or "direction". www.nde. state.ne.us/HSR/documents/Discipline.ppt

1.6.5 Learning

Learning is a process of Mental, Physical and Spiritual development. Development is advancing and growth. Development is proof that learning has taken place. One has to apply him or herself to a given situation and or context in order for learning to occur. http://www.mwls.co.uk/messageboard/learndef.htm

1.6.6 Classroom Management

Classroom Management is the ways in which pupil behavior, movement and interaction during a lesson are organized and controlled by the teacher to enable teaching to take place most effectively. (Richards, 1990)

1.6.7 Team Coaching

Team coaching is provided to intact groups for the purpose of developing the ability of the team to work together to achieve results. It can be defined as direct interaction with a team intended to help members make full, coordinated use of collective resources in building relationships, communicating and accomplishing the work. (http://www.coachmargie.com/html/team_coaching.html)

1.6.8 Teacher's Journal

Teacher's Journal is a personal record of occurrences, experiences, and reflections from teaching, student behaviors and lesson plan after finished class kept on a regular basis; a diary.

1.6.9 Reward

Reward is something that is given in return for good or evil done or received or that is offered or given for some service or attainment. (http://www.merriam-webster.com/dictionary/reward?show=1&t=1288070941)

1.7 Significance of the study

How this study will help the students?

The study aims to help students to develop their behavior and discipline in learning computer subject focusing on primary 3 room 7 and room 8 by communicating with parents, teachers can help students to develop their behavior. Students will change their behavior such as; no play computer games too much, nonaggressive behavior because they will not playing computer games too much.

Students will speak politely and use their leisure time usefully. Students will be successful in all subjects that they learn. They will love reading especially textbooks, show intention to learn, be motivated to learn, have an explicit understanding in all subjects that they learn.

How this study will help Saint Gabriel's College?

This study contributes to the achievement of Saint Gabriel's College Goal. Because, nowadays Saint Gabriel's College Goal as "Top Five in Asia" so, to encourage all people in school such as students, teachers and parents to recognizing the importance of developing themselves as a self-disciplined. When all personnel in the organization focus on the quality, school will develop and achieve the school's goal.

How this study will help teachers?

This study hopes to contribute to the achievement of teachers as follows:

- Teachers must change their behavior by following the world changes and must have more creative thinking.

- School have many teachers teaching in the program "Intensive English" and basic subjects. This study will help teachers in the Intensive English program to change attitudes about teaching style. Change the view to resolve the students' problem and change the method of teaching to improve student's learning styles.

1.8 Scope and Limitations of the Study

This case study involves teachers and students as follows: Six teachers in the Division of Technology and Computer, 20 teachers in primary 3 level, 33 students in primary 3 room 7 and 33 students in primary 3 room 8. The research population are 92 people. The scope of this research studies the initial impact of organization development intervention on Student's behavior and discipline. There are some limitations of the study in this research which are as follows; student's behavior and discipline.

CHAPTER 2

REVIEW OF RELATED LITERATURE

AND CONCEPTUAL FRAMEWORK

This research intends to study the current situation of the students in primary 3 room 7 and 8 computer class, specific on students' behavior and discipline.

2.1 Review of relate literature

2.1.1 Change management

Change management plays an important role in any organization since the task of managing change is not an easy one. When we say managing change we mean to say that making changes in a planned and systemic fashion. With reference to the IT projects we can say the change in the versions of a project and managing these versions properly. Changes in the organization or a project can be initiated from within the organization or externally. For example a product that is popular among the customers may undergo a change in design based on the triggering factor like a competitive product from some other manufacturer. This is an example of external factor that triggers a change within the organization. www.management-hub.com /changemanagement59.html

> "Change is no longer an irregular outing, an inconvenient upheaval to be undertaken once every ten years. Change is something we have to learn to live with, to structure and to manage. Change is here to stay, and the winners will be the ones who cope with it." (Bainbridge, 1996, p. 4)

Lewin (1951) produced the first viable model of change in his force field model. In this model, change was characterized as a state of imbalance between driving forces and restraining forces. If these forces are balance or equilibrium, no change could take place. Change is inherent in every context and is a relative concept. "Every phenomenon is subject to change, however apparently stable its nature," (Wilson, 1992, p. 8). That change exists is a predictable notion. "In every industry and business, change ebbs and flows in recurring cycles that to at least some extent can be charted and therefore anticipated and managed," (Nadler & Nadler, 1998, p. 45).

To be lasting, deep change must not only be made amidst organizational layers, but within each of the players themselves. Deep personal change can be uncomfortable, yet the need for each member of an organization to become empowered and internally driven is essential for success in this era of change and evolvement. Quinn cautions that if players are not willing or able to make these deep personal changes, then "slow death" is the alternative. Slow death, "a meaningless and frustrating experience enmeshed in fear, anger, and helplessness, while moving surely toward what is most feared" is the consequence of resistance to change. Burnout can occur if this resistance to change persists, resulting in loss of employment or even destruction of the organization as a whole.

Human nature in general, is that no one would likes to change. Because, "change" means that they have to vary what they are doing in everyday life. Whether it's working style and working methods from the traditional approach or the new things in daily life are in fact.

2.1.2 Classroom Management

A teacher's classroom-management system communicates information about the teacher's beliefs on content and the learning process. It also circumscribes the kinds of instruction that will take place in a particular classroom. A classroom in which the teacher takes complete responsibility for guiding students' actions constitutes a different learning environment than one in which students are encouraged and taught to assume responsibility for their own behaviors. Content will be approached and understood differently in each of these settings. Furthermore, more intellectually demanding academic work and activities in which students create products or encounter novel problems require complex management decisions. This correlation between instructional activity and management complexity further reinforces the interrelated nature of classroom management and curriculum.

The interwoven nature of classroom management and classroom instruction is especially easy to see from a student perspective. Students have at least two cognitive demands on them at all times: academic task demands (understanding and working with content) and social task demands (interacting with others concerning that content). This means that students must simultaneously work at understanding the content and finding appropriate and effective ways to participate in order to demonstrate that understanding. The teacher must facilitate the learning of these academic and social tasks. Thus from the perspective of what students need to know in order to be successful, management and instruction cannot be separated.

As a result of this broadened definition of classroom management, research has moved away from a focus on controlling behavior and looks instead at teacher

actions to create, implement, and maintain a learning environment within the classroom. Everything a teacher does has implications for classroom management, including creating the setting, decorating the room, arranging the chairs, speaking to children and handling their responses, putting routines in place (and then executing, modifying, and reinstituting them), developing rules, and communicating those rules to the students. These are all aspects of classroom management. http://www.answers.com/topic/classroom-management

2.1.3 Learning Child center

Management taught by student center. Considering the appropriateness and benefit to students. Learning activities allow students to play a role in learning Students must participate in learning activities and a variety of learning processes to achieve real learning. (Science teaching: knowledge for learning process effective. Tisana Khammanee, Chulalongkorn University, 2552, p.120)

Student-center learning (also called child-center learning) is an approach to education focusing on the needs of the students, rather than those of others involved in the educational process, such as teachers and administrators. This approach has many implications for the design of curriculum, course content, and interactivity of courses.

For instance, a student-center course may address the needs of a particular student audience to learn how to solve some job-related problems using some aspects of mathematics. In contrast, a course focused on learning mathematics might choose areas of mathematics to cover and methods of teaching which would be considered irrelevant by the student.

Student-centered learning, which is, putting students first, is in stark contrast to existing establishment/teacher-center lecturing and careerism. Student-center learning is focused on the student's needs, abilities, interests, and learning styles with the teacher as a facilitator of learning. This classroom teaching method acknowledges student voice as central to the learning experience for every learner. Teacher-centered learning has the teacher at its centre in an active role and students in a passive, receptive role. Student-centered learning requires students to be active, responsible participants in their own learning. Estes, Cheryl. (2004).

Theory of cooperative learning

Cooperative learning is learning in small groups. The group member which is has difference capability. There are helping each other learn to achieve a goal of group. Slavin David Johnson and Roger Johnson said that the general curriculum is not interested in the relationship and interaction between students. But will focus between teachers and learners or between students and lessons. The relationship between students is always neglected even though other researches indicate that the reason of the students between themselves, the school, the teachers and their friends have an effect on learning. (Science teaching: knowledge for learning process effective. Tissana Khammanee, Chulalongkorn University, 2552, p.98-99)

2.1.4 National Education Standards

Ideals and principles of national education provision, Relevant provisions of the Constitution of the Kingdom of Thailand 1977, the National Education Act 1999, the Second National Education Act 2001 and the Education Policy of the Thai Government presented to the Parliament – all share the ideals and principles of

education provision with the objectives of transforming the Thai society into a knowledge-based one; enabling all Thais to have equal access to education; and development of human resources through continuous lifelong learning, essential for the knowledge-based economy desired.

Significant ideals of education include provision of lifelong learning and transforming the Thai society into a knowledge society. Education aimed at enhancing the quality of life and creating a society with balanced and harmonious integration of wisdom, morality and culture is in fact lifelong education for the benefit of all Thai people. It is aimed at providing the children with a sound foundation; instilling in them attributes of desirable members of society right from basic education level; and enabling them to acquire knowledge and competence required for work of quality. All sectors of the society participate in education provision that meets the learners' actual needs. It can be ascertained that such education is a development process of life and society; an essential factor for sustainable development of the country, resulting in the people's abilities for self-reliance, mutual support for one another and vigorous competitiveness in the international arena.

For realization of the objectives of the above ideals and principles of educational provision, 3 standards and 11 indicators have accordingly been set. These are;

First standard: Desirable characteristics of the Thai people as both citizens of the country and members of the world community;

Second standard: Guidelines for educational provision; and

Third standard: Guidelines for creating learning society / knowledge society.

(National Education standards, Office of the National Education Council Ministry of Education, 2006, p.39-40)

2.1.5 Organization as a System

Why is it Important to Look at Organizations as Systems? The effect of this system theory in management is that writers, educators, consultants, etc. are helping managers to look at organizations from a broader perspective. Systems theory has brought a new perspective for managers to interpret patterns and events in their organizations. In the past, managers typically took one part and focused on that. Then they moved all attention to another part. The problem was that an organization could, e.g., have wonderful departments that operate well by themselves but don't integrate well together. Consequently, the organization suffers as a whole.

Now, more managers are recognizing the various parts of the organization, and, in particular, the interrelations of the parts, e.g., the coordination of central offices with other departments, engineering with manufacturing, supervisors with workers, etc. Managers now focus more attention on matters of ongoing organization and feedback. Managers now diagnose problems, not by examining what appear to be separate pieces of the organization, but by recognizing larger patterns of interactions. Managers maintain perspectives by focusing on the outcome they want from their organizations. Now managers' focus on structures that provoke behavior that determine events -- rather than reacting to events as was always done in the past. http://managementhelp.org/org_thry/org_sytm.htm

Organization must have a management system. If organizations do not have any managing or do not have a good management system that organization cannot be succeeding. Nowadays, the world is change to what we call "globalization" because

the world is competitive. Communications can quickly and easily, so if the organization does not manage the system. The organization will experience failure or cannot continue to succeed.

Educational organizations are the most indispensable for managing the organization. Because the study of management is the most important to develop people. If the system management of education organization fails, it will have a negative impact on people.

When a comparing the classroom with the organization, teacher acts as a facilitator for the learners, there must be management activities in the classroom so that learners can learn the most. This is a management systems the same as the organization management.

2.1.6 Organization Development

An Old Standard Definition of OD: The nature and needs of organizations are changing dramatically. Correspondingly, the profession of organization development (OD) has been changing to meet the changing needs of organizations. Therefore, it may be most useful to consider several definitions of organization development. Here's a standard definition. The next section gives some contrasting definitions.

For many years, the following definition was perhaps the standard definition for OD. The following definition was developed in 1969 at a time when an organization was considered to be much like a stable machine comprised of interlocking parts.

"Organization Development is a planned effort, organization-wide, and managed from the top, to increase organization effectiveness and health through

planned interventions in the organization's 'processes,' using behavioral-science knowledge." (-- Beckhard, "Organization development: Strategies and Models", Reading, MA: Addison-Wesley, 1969, p. 9.)

New Definitions of OD: Today's organizations operate in a rapidly changing environment. Consequently, one of the most important assets for an organization is the ability to manage change -- and for people to remain healthy and authentic. Consider the following definition of OD:

"Organization Development is the attempt to influence the members of an organization to expand their candidness with each other about their views of the organization and their experience in it, and to take greater responsibility for their own actions as organization members. The assumption behind OD is that when people pursue both of these objectives simultaneously, they are likely to discover new ways of working together that they experience as more effective for achieving their own and their shared (organizational) goals and that when this does not happen, such activity helps them to understand why and to make meaningful choices about what to do in light of this understanding." (-- Neilsen, "Becoming an OD Practitioner", Englewood Cliffs, CA: Prentice-Hall, 1984, pp. 2-3.)

Content from above, will see that the development organization in the former and the current session have changed rapidly. Today all personnel in an organization must recognize the importance of organization change. That all organizations must adjust to developments in the organization to be better. Most importantly, people in the organization must recognize that the organization will not be developed. If all people do not collaborate in the development of people, everyone must begin to change their development in organizations to achieve the organization goal.

2.1.7 Student's behavior

Human needs are an important part of human nature. Values, beliefs, and customs differ from country to country and group to group, but all people have similar needs. As a leader you must understand these needs because they are powerful motivators. Abraham Maslow felt that human needs were arranged in a hierarchical order (Maslow, 1954). He based his theory on healthy, creative people who used all their talent, potential, and capabilities. At the time, this methodology differed from most other psychological researches in that it was based on observing disturbed people. There are two major groups of human needs: basic needs and Meta needs.

Basic needs are physiological, such as food, water, and sleep; and psychological, such as affection, security, and self-esteem. These basic needs are also called deficiency needs because if they are not met by an individual, then that person will strive to make up the deficiency.

The higher needs are called Meta needs or being needs (growth needs). These include justice, goodness, beauty, order, unity, etc. Basic needs normally take priority over growth needs. For example, a person who lacks food or water will not normally attend to justice or beauty needs. The basic needs must normally be met before the Meta or being needs above them can be met. The four Meta needs can be pursued in any order, depending upon a person's wants or circumstances, as long as the basic needs have all been met. http://www.nwlink.com/~donclark/leader/leadhb.html

Therefore, students have the same behavior same Meta needs or being needs, especially behavior of students in the elementary level. They are still in childhood trigger or stimulus trains several effects on the expression of their behavior in the

classroom. Moreover, human general are satisfaction with the positive force added rather than a negative force added.

2.1.8 Student's discipline

Self-discipline is the ability to get yourself to take action regardless of your emotional state. Self-discipline is one of many personal development tools available to you. Of course it is not a panacea. Nevertheless, the problems which self-discipline can solve are important, and while there are other ways to solve these problems, self-discipline absolutely shreds them. Self-discipline can empower you to overcome any addiction or lose any amount of weight. It can wipe out procrastination, disorder, and ignorance. Within the domain of problems it can solve, self-discipline is simply unmatched. Moreover, it becomes a powerful teammate when combined with other tools like passion, goal-setting, and planning. http://www.stevepavlina.com/blog/2005/06/self-discipline/

A teacher does not mean that to give the knowledge to students only. But mean that to teach students to be self-disciplined. Because, students are in self-discipline will enable them to make their lives successful. So the word behavior and discipline is a word often used simultaneously. Student development must regardless of their discipline. Teaching students to discipline themselves to start from the first is to teach students self-discipline is one that challenges the ability of teachers is particularly.

The word "teacher" has important functions in creating students to be good people quality so they will grow into adults with good quality in the future. The word "good quality" does not mean that education success does not mean getting a high score. Never fail, but to have quality is to have their self-discipline in which the word

"self discipline" is means to have good ideas, doing good for themselves and others. Therefore, the word "behavior" and "discipline" must go together. If they do not have self-discipline they would not be quality persons.

2.2 Conceptual Framework

This conceptual framework is the map used in the conduct of the action research using a pre-post IDI comparative analysis. The design is divided into three steps is the Pre-IDI is to identify current students' behavior. Identify the unwanted behavior such as aggressive, impatient, sluggishness in learning, the lack of self-discipline and so on. These behaviors affect students. The researcher proposes to solve problems by scheduling IDI activities "Thoroughbred Cartoons" for students to use their free time to benefit. Moreover, this activity also encourages students to use computers to benefit more than the use of computers for gaming only. The outcome of this activity is to reduce unwanted behavior problems, including lack of self discipline in students. The researcher as a teacher teaching a computer elementary class at Saint Gabriel's College based on problems with behavior and discipline issues that affect the learning levels of students in small age as shown in the following table.

Table 2.1: Conceptual Framework

Pre-IDI	IDI	Post-IDI
Student's behavior **1. Students do not intend to study** • Intend to play computer games rather than learning about computer applications. • Dislike following computer textbook, but uses a computer to perform activities. • Talking in classroom. • Do not have a typing skill. • Do not have creative thinking. **2. Teaching style** • Use only one style to teach. • Teachers have backwardness technological.	**Classroom management** **1. Teaching method / Motivating student to learn** • Using learner-centered in learning. • Students to meditate before learning. • Divide students into groups for activities. • Using game "Thoroughbred of cartoons" • Give award for the winner. • Let's students reading cartoon story or the story that they like from the Internet. • Meditation practice **2. Teacher training / seminar** • Group preparing lesson • Team coaching • Computer training for updating the new technology	**Student's behavior** • Students are able to intent to study. • Students can control themselves very well. • Students have concentrated on learning better. • Students are able to love to read especially the textbook. • Students will be able to improve the knowledge by themselves.
Student's discipline • Students do not follow the computer lab rules. • Student's failure to comply with regulations of the school.	**Classroom management** **Teaching methods /** • Define rules for computer labs for students to follow. • Reinforcement for students who follow the computer lab rules such as gives reward. • Punish students who do not follow the computer lab rules such as give a minus score.	**Student's discipline** • Students are able to follow the computer lab rules or school's rules. • Students have more self discipline.

Table 2.1: Conceptual framework

In the pre IDI phase, it has shown the current situation of student's behavior and student's discipline in primary 3 computer class. Student's behavior was divided into two sub variables there are; intention to learn and teaching style. In the computer class, students do not intend to study but they like to play computer games rather than learning computer application. About 80 % of each room does not like to follow the computer textbook but use a computer to perform activities. About 90 % of students in each class do not have typing skill that is very important for them for the future especially in the primary 4 computer class. Moreover, in 70% of each room, students do not have creativity. Observation from classroom activity is the use of computers for students to draw cartoon pictures. Most students are drawn by copying from a friend or copy from those who are skilled in painting. For teaching style, some computer teaches use outdated teaching methods, such as give students open textbooks and describe or use the same activity as the last year for example 'drawing the same cartoon picture' these make the students bored.

The problem on students discipline in the computer class is students do not follow the computer lab rules as a result; students do not have self-discipline and fail to comply with the school rules.

The post IDI has been designed to enhance the performance of each variable between before and after the IDI and to adjust the behavior of students and a teacher in the computer subject to achieve the objectives of the school is to provide modern education in an international school.

CHAPTER 3

RESEARCH METHODOLOGY

This chapter represents the research design and methodology; instruments such as questionnaires, the data collection technique, the data collection procedure and data analysis. The action research explains the three phases of Instruction Development Intervention (IDI) process. It covers the number of respondents, the instruments, and the data collection procedures and techniques and data analysis.

3.1 Research design

3.1.1 Phase I: Pre-IDI

The research design of this study is patterned the action research model which composes of a three phase process; Pre-IDI, IDI, and Post-IDI. The researcher uses qualitative and quantitative questions to ensure the reliability and consistency of data and results. Qualitative method is used deep down and interprets the area of problem after analyzing the results from the quantitative method. The researcher diagnosed the two main areas of this study. These are student's behavior and discipline in primary 3 level room 7 and 8 specific on computer subject.

After the necessary data will be collected, the Statistical Package for Social Science (SPSS) software will be used to analyze the collected data from the questionnaires. The methods are divided into three steps; the first step is use questionnaires for computer teachers and teachers in primary 3 level, questionnaires for students in primary 3 level to explore the behavior and discipline of students currently in primary 3 level. Then use the Statistical Package for Social Science

(SPSS) software to process data from the questionnaires and then make the project to help resolve problems with behavior and discipline of students. After implementation of the project is completed, using the Statistical Package for Social Science (SPSS) software for data evaluation following details.

The research design is based on the model of instruction development intervention on student's behavior and discipline in primary 3 computer class.

3.1.2 Phase II: IDI

The researcher is assesses by using the Pre-IDI activities to resolve problems of student behavior and discipline. Activities of teaching style are divided in two ways. There are the activity learning typically is taught by the content of study such as teaching students to use MS-Word and use the Internet to find information in room 7. But for room 8, the activity is "Thoroughbred of Cartoons", where students will learn how to use MS-Word along with the use of Internet in search of information about students' favorite cartoons. Moreover, students can find the information about their favorite cartoons from the school library. After finalizing, the researcher will conclude student's performance activity in the class.

In addition, to student's discipline the researcher defines computer lab's rules and students have to follow them. Reinforce students who follow the computer lab rules by rewards. Punish students who do not follow the computer lab's rules such as give a minus score.

3.1.3 Phase III: Post-IDI

This phase describes the summary of both activities there are activity I for room 7 and activity II for room 8. Quantitative and qualitative methods will be utilized to analyze and interpret the obtained data from pre-IDI and post-IDI. A summary is from a score of successful activities. The students can answer questions about students' favorite cartoons. In addition, a summary of the criteria of students on activities score "Thoroughbred Cartoons". Moreover, teachers' conclusion of this phase as an activity where teachers assess students after completing the activity. Statistical analyses will be run to get the frequency, percentage and mean, plus, determining the difference between pre-IDI and post-IDI to determine the initial impact of organization development interventions. The Statistical Package for Social Science (SPSS) software will be used in the tabulation and computation of the data gathered.

3.2 The respondents

This research is actually IDI program of teachers in primary 3 and students in primary 3 computer class room 7 and 8 teachers as shown in the below table, the research population was 92 respondents. Room 8 was the intervention group while, room 7 was served as control group of the study.

3.2.1 The respondents for interview

In dept interview

- 6 computer teachers

- 20 teachers in primary 3

Focus groups discussion

- 33 students in primary 3 room 7

- 33 students in primary 3 room 8

3.2.2 The respondents for questionnaire

Function	Respondents
1. Teachers in computer subject	6
2. Teachers in primary 3 level	20
3. Students in primary 3 computer class	
3.1 room 7	33
3.2 room 8	33
Total	92

Table 3.1: Respondents

In table 3.2 Show the lists of population and the respondents in this study.

Group	Population	Respondents	Percentage
Teacher	26	26	28.26%
Student	66	66	71.74%
Total	92	92	100%

Table 3.2: Lists of population respondents

3.3 Research Instruments

There are three instruments used in this study as follows; survey questionnaires, interview guides and observation checklist.

3.3.1 Questionnaires survey

The researcher distributed questionnaires to the students in the computer class primary 3 room 7 and 8, and teacher in primary 3. These also focus on student's behavior and discipline.

Part 1: Three questions for demographic profile

Part 2: Seven questions (Q1-Q7) for student's behavior and three questions

(Q8-Q10) for student's discipline

3.3.2 Interview guide

Teacher used interview guide to find the root course of the problem based on student's behavior and discipline.

3.3.3 Observation checklist

The researcher observed classroom focus on student's behavior and discipline in the computer class. The observation include computer teachers in primary level, teachers in primary 3 level and student in primary 3 room 7 and 8.

3.4 Data Collecting Technique and procedure

3.4.1 Data collection Techniques

The researcher used questionnaires, interview guides and observations for the primary data collection techniques. The Statistical Package for Social Science (SPSS) software is used for data processing.

Use of Questionnaires

This is the main instrument used in data collection. The result measured quantitatively. The researcher used questionnaires to check student's behavior and discipline before doing the process.

Interview

The researcher asked questions to check the student's behavior and discipline, and check how the students change their behavior and discipline. Moreover, the researcher asked questions about their favorite cartoon for activities

Observation and checklist

Using the observation to collect data and to observe student's behavior and discipline in the computer class.

3.5 Data Collection Procedures

In this phase, the researcher prepares a time to distribute the questionnaires, return the questionnaires, collect and analyze data. Tabulation and analysis of the data gathered will be utilized and performed, using the Statistical Package for Social Science (SPSS) software.

3.6 Data Analysis

3.6.1 Quantitative data analysis; The researcher uses the Statistical Package for Social Science (SPSS) software to analyze the data, providing answer to research questions, and hypothesis testing.

Questionnaire part 1: demographic profile is analyzed by descriptive statistics of frequency distribution and percentage.

Questionnaire part 2 and 3: analyzed with four point scale. The paired sample t-test is another statistic method used to analyze differences between Pre and Post IDI. The confidence interval set as 90%. The average weighted mean to assign categories of ratings as follows:

Descriptive Rating	Point	Arbitrary Level
Strongly Agree	4 points	3.26-4.00
Agree	3 points	2.51-3.25
Disagree	2 points	1.76-2.50
Strongly Disagree	1 point	1.00-1.75

3.6.2 Qualitative data analysis; The researcher analyzed the data gathered from in depth interviews, focus on group activity discussion and observations then apply it as a support tool to collect data and information from questionnaires.

CHAPTER 4

PRESENTATION OF FINDINGS AND ANALYSIS OF DATA

This chapter represents the results and findings for action research process of instruction development intervention in three phases they are; Pre-IDI, IDI and Post-IDI. The succession of data is presentation and discussion in this chapter.

4.1 Demographic Profile of the Respondents

This study is divided into two groups; group 1 is students in the elementary years 3 room 7 and group 2 are students in the elementary years 3 room 8. In group 1 researcher taught by following the content of the lesson without intervention in any way. However, for group 2 the research method of intervention by using the activity of learning to solve student behavior and discipline problems.

The frequency and percentage is used to analyze the demographics of respondents including gender, age and class level.

Table 4.1: Gender

Gender	Frequency	Percentage
Male	66	100%

All respondents are boys.

Table 4.2: Age

Age	Frequency	Percentage
7	11	16.66%
8	34	51.52%
9	21	31.82%
Total	66	100%

The age of respondents is shown in table 4.2. There are 51.52% of respondents whose age is 8 years old. This is the largest portion of the population. There are 21 respondents 31.82% of all respondents whose age is 9 years old. There are 16.66% respondents whose age is 7 years old.

Table 4.3: Class level

class	Frequency	Percentage
7	33	50%
8	33	50%
Total	66	100%

Respondents' class level is 33 respondents or 50% from room 7 and room 8.

4.2 Phase I: Pre-IDI

Research question 1: What is the current situation of student's behavior and discipline in learning computer subject?

From this phase, the researcher focuses on the current situation divided into two main areas there are, students' behavior and discipline. In this phase, the process to identify the problems in the organization and to find appropriate IDI activity to solve problems. The current situation analysis in student's behavior and discipline are collected from the primary data using questionnaires, observations and interviews.

Questionnaires are divided into two types. The first type is for the teachers in primary 3 level. Second type if for students in primary 3 rooms 7 and 8. The questions in the questionnaire are as follows.

The researcher would like to be sure that the results of the answer should be in the right way of the real situation so, researcher explained to students to understand that this questionnaire does not affect student's scores anymore.

Pre-IDI (Student's questionnaires)

Table 4.4: Perception of student's questionnaires in term of student's behavior and discipline in primary 3 room 7 and 8 computer class

Items	N	Mean	SD	Rating Level
Q1 Student likes to playing computer games.(in computer class)	66	3.78	.41	Strongly Agree
Q2 Student likes to play during lunch time until the attendance study time.	66	3.42	.80	Strongly Agree
Q3 Student likes to fight playing with friends.	66	2.87	.85	Agree
Q4 When your friends make you angry, you will interact with indecent words immediately.	66	3.12	.73	Agree
Q5 Do not like to learn by following the computer text book but likes to doing activities.	66	3.42	.68	Strongly Agree
Q6 Student does not have concentrate in learning, such as talk a lot, absent-minded in the classroom.	66	2.24	.97	Disagree
Q7 Students do not understand the course content that they have learned in computer class.	66	3.25	.79	Agree
Q8 Responsibility of the students in the class are relatively low, such as do not sent homework, or do not work on assignment to send to the teacher.	66	1.95	.79	Disagree
Q9 Students absent or fled in computer classes on a regular basis.	66	1.46	.58	Strongly Disagree
Q10 Students failing to comply with lab rules regulations such as the computer lab.	66	2.89	.55	Agree
Average for Pre IDI	**66**	**2.84**	**.26**	**Agree**

The perception of respondents towards student's behavior and discipline before IDI, present that the total average mean was 2.84, the standard derivation was 0.26 and the rating level was agree. This indicated that respondents were approving with the current situation.

Pre-IDI (Teacher's questionnaires)

Table 4.5: Perception of teacher's questionnaires in term of student's behavior and discipline in primary 3 room 7 and 8 computer class

Items	N	Mean	SD	Rating Level
Q1 Most of students' time in playing computer games. (in computer class)	26	3.19	.74	Agree
Q2 Like to play during lunch time until the attendance study time.	26	3.80	.40	Strongly Agree
Q3 Have an aggressive behavior such as, violence playing with friends.	26	2.96	.72	Agree
Q4 Saying uncomplimentary use obscene words in conversations with friends all the time.	26	1.92	.56	Disagree
Q5 Do not likes to learn by following the computer text book but likes to do activities.	26	3.84	.36	Strongly Agree
Q6 Do not like to study hard. Do not have concentrate in school, such as talk a lot, absent-minded in the classroom.	26	2.61	.57	Agree
Q7 Students do not understand the course content that they have learned in computer class.	26	2.69	.47	Agree
Q8 Responsibility of the students in the class are relatively low, such as do not sent homework, or do not work on assignment to send to the teacher.	26	2.69	.73	Agree
Q9 Students absent or fled in computer classes on a regular basis.	26	1.23	.42	Strongly Disagree
Q10 Students failing to comply with lab rules regulations such as the computer lab.	26	2.92	.74	Agree
Average for Pre IDI	26	2.78	.19	Agree

The perception of respondents towards student's behavior and discipline before IDI, present that the total average means was 2.78, the standard derivation was 0.19 and the rating level was agree. This is the same result with student's questionnaires result.

Summary Assessments Pre-IDI (Interview, Observation)

Summary and interview of computer teachers in primary 3 level in terms of student's behavior and discipline in primary 3 level. The researcher divided the interviews into two parts there are 10 questions for students in primary 3 room 7 and 8

in computer class and 10 questions for teachers in primary 3 level. Total respondents are 92 as shown in chapter three. Summarized from interviews founded that:

- ❖ Most students' time in playing computer games.

- ❖ Like to play during lunch time until the attendance study time.

- ❖ Do not like to learn by following the computer text book but like to do activities.

- ❖ Have an aggressive behavior such as, violence playing with friends.

- ❖ Students do not understand the course content that they have learned in computer class.

- ❖ Students do not understand the course content that they have learned in computer class.

- ❖ Responsibility of the students in the class is relatively low, such as do not send homework, or do not work on assignment to send to the teacher.

- ❖ Students failing to comply with lab rules regulations such as in the computer lab.

Expand the result is student's behavior and discipline for students in the young class small from the perspective of teachers involved. Will find that most problems resulting from the use of incorrect time. Such as computer games enthusiasts. The students' favorite game is a fighting game. Thus, the resulting of student's behavior and discipline in severe emotional aggression. It also found that students do not like reading books but, like reading comic or cartoon books. Which affect learning for example students do not have concentrate in learning.

Observation: Student's behavior

Table 4.6: shows the number of students who do not intend to study before IDI

Observation Items	Number of students who do not intend to study							
	Room 7				Room 8			
	1st	2nd	3rd	Average	1st	2nd	3rd	Average
Talkative	14	15	13	14	16	15	15	15
Annoy friends	4	4	3	4	4	4	5	4
Unmindful/abstracted	5	6	3	5	7	9	5	7
Absent class	2	1	1	1	1	2	2	2
Walk around class	5	5	4	5	6	5	7	6
Do not send homework	10	12	14	12	13	15	16	16
Total				41				50

Table 4.6 shows the number of students who do not intend to study. This table is showing student's behaviors survey of students who learn computer in primary 3 room 7 and 8 which indicates behavior which the students should be improving in 6 aspects. Those are talking in the class, annoying friends, unmindful the lesson, absent the class, walking around the class and do not send homework. Therefore, summarizing of this survey found that the worst behavior which was always found in computer class is that they are talkative more than the average by 15 times. The second is 'do not send homework' by the average of 14 times. From the observation it shows that the student's behavior of talking in class is to talk about other topics not related to the computer subject so, when teachers asked questions about the content that teachers explain to students who are talkative in class, it indicates that students cannot answer the question and also do not know what questions were asked? That is

a behavior result of students who do not understand the content or activities that teachers assign. In addition, another behavior which the students should be improving is not sending their homework. From the observation have found that most students are avoiding homework but, they will copy homework from friends before class. Some assignment is to draw a picture and coloring. When students have less time to draw a picture, students cannot make a beautiful painting.

4.3 Phase II: IDI Instruction Development Intervention

This phase represents the IDI activities and answers the research question number two: What are the appropriate Instruction Development Interventions (IDI's) for student's behavior and discipline in learning computer subject?

The researcher conducted and implemented the IDI activities in the area of student's behavior and discipline. The research target are students in computer class primary 3 room 7 and 8.

4.3.1 Researcher's activity

The researcher designs the teaching method to change student's behavior and discipline. Collaborative learning method is useful for student's behavior and discipline and it was showing in the IDI design for student. In primary 3 level students have to learn computer subject 2 periods per week followed by curriculum. So, IDI is designed for the teachers to teach in the classroom. Teachers must to work hard especially; teachers must prepare the lesson plans, computer equipments. Teachers must know the required programs for teaching well. Before IDI, the researcher had to study to gain more knowledge by reading books, newspapers,

watching television and searching for information from the Internet is show in the schedule in table 4.7:

Table 4.7 Intervention Time Gantt chart

Process	Time line (October-November 2009)				
Preparing and organizing meeting	Oct W. 4				
Training teacher in the use of computer programs in teaching		Nov W. 1	Nov W. 2		
Preparing the games			Nov W. 2		
Preparing the presentation topic				Nov W. 3	
Professional teaching					Nov W. 4

4.3.2 Group I: In this phase the researcher taught students in computer class primary 3 room 7 by following the content from the text book and followed academic performance under the topic of 'drawing a second dimensional picture'.

4.3.3 Group II: This phase, researcher use "Student-Center Instruction" by the activity "Thoroughbred of Cartoons" in computer class primary 3 level room 8 under the topic of 'drawing a second dimensional picture'.

4.3.3.1 Group I activity: Picture design

Researcher teaching the students by following the content from the text book and following academic performance started by explaining the main concept of picture design as follows;
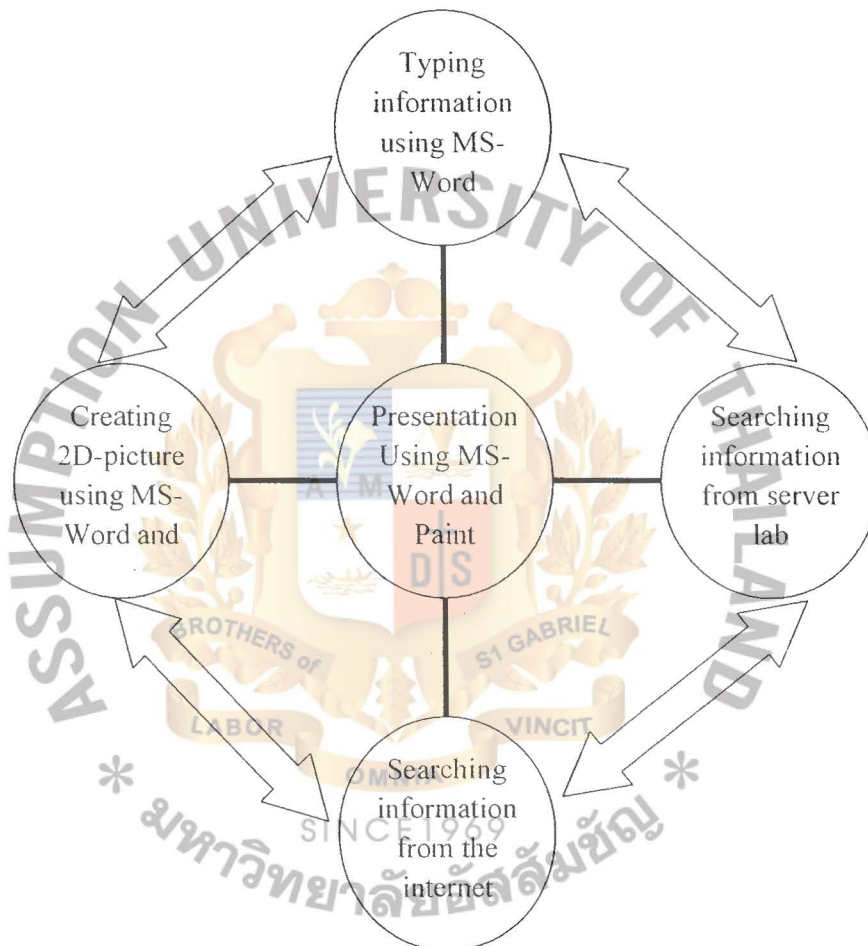
Chart 4.1: Main Concept (Concept mapping)

After finishing the explanation, the researcher let students to create the second dimensional picture by following the teacher. Students created the same picture of "a snow man". This is the example of picture that students created;

Merry Christmas 2010

Picture 4.1: Group I activity "Snow man"

4.3.3.2 Group II: Activity "Thoroughbred of Cartoons"

For this group, the researcher intervenes by transforming teaching methods and learning styles from the same topic that is 'drawing a second dimensional picture' based on the content of the lesson. Provide an activity for students to use free time in the library to find information about their favorite cartoon, provide activities in the computer lab for students to find information about their favorite cartoon from the internet. After that, researcher let students draw cartoons which they like by using Microsoft Office Word software assigned the topic as "My favorite cartoon".

4.3.3.2.1 Step 1: Find favorite cartoons

The researcher advice students to search for information from the school library and the internet where students can use their free time during lunch. Access a computer lab or the school library to find information about student's favorite cartoon for activities "Thoroughbred Cartoons" using the form below.

Survey for Students in computer class primary 3 room 7 and 8

"My Favorite Cartoons"

****

Please write the name of the top five favorite cartoons that you like by writing the name of a favorite cartoon and the reasons of why you like these cartoons.

The name of favorite cartoon	The reason of why you like these cartoons
First	
Second	
Third	
Fourth	
Fifth	

Thereafter, the researcher prioritizes of student's data to rank a top five favorite cartoon types to provide classroom activities using the name "Thoroughbred Cartoons". These are examples of information that students receive from the internet.
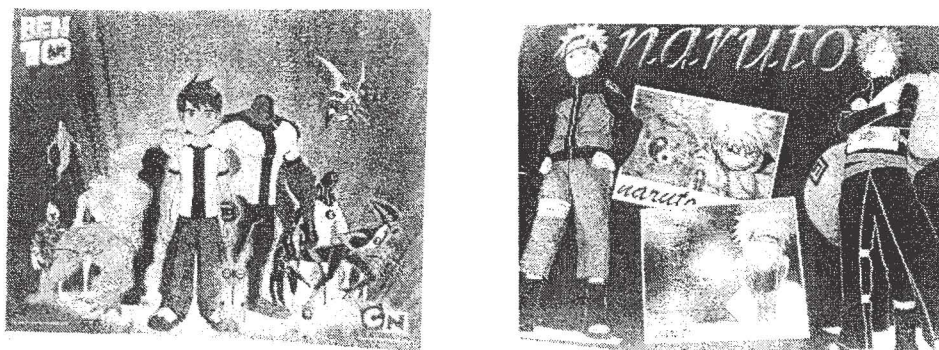
Doraemon : โดเรม่อน

โดเรม่อน หรือโดราเอม่อน เป็นแมวหุ่นยนต์ในโลกอนาคต ยุคศตวรรษที่ 22 เกิดวันที่ 3 กันยายน พ.ศ. 2655 มีน้ำหนัก 129.5 กก. ความสูง 129.3 ซม. กระโดดได้สูง 129.3 ซม. และยังวิ่งได้เร็วถึง 129.3 กม./ชม. ลักษณะตัวอ้วนกลมสีน้ำเงิน ไม่มีใบหู เนื่องจากถูกหนูกิน ไม่มีนิ้วมือ มีกระดิ่งห้อยคอสีเหลือง มีหนวดหกเส้น มีกระเป๋าหน้าสำหรับ เก็บของวิเศษ สารพัดอย่างที่สุดยอด อาหารที่ชอบที่สุดคือ แป้งทอด (โดรายากิ) สิ่งที่กลัวที่สุดคือ หนู

Picture 4.2: Sample student's favorite cartoon pictures

After receiving data from students the researcher ranked the favorite cartoons by dividing them into five orders. They are;

1. Ben ten   2. Doraemon

3. Pokaemon   4. Dragon ball and

5. Conan

At the end of group I activity class, the researcher tried to observe the classroom based on student's behavior and discipline while they were working on their jobs. The researcher have found that most students are intent to learn and draw the picture by following the teacher but, some students about 20% of the class they do not intend to study and talk with friends, open another program, try to open the website which the teachers did not allow.

4.3.3.2.2 Step 2: Encouraged student

For this group, the researcher encourages students to use the game quiz. The researcher makes activity "Thoroughbred Cartoons" which is about cartoon story. The researcher randomly selected the top five student's favorite cartoons and asked questions about the cartoon story and recorded the score for students who can get the correct answer and give an award to the winner.

4.3.3.2.3 Teaching approach

The researcher shows the second dimensional pictures by presenting on the projector and explanation about the differences between one dimensional picture and two dimensional pictures. Then drawing second dimensions cartoon picture and then students draw their favorite cartoon using Microsoft Office Word software followed the teacher. These are examples data of students who is finished an activity.

My favourite c~~~~~ ~~10 Alien Force"

Brainstorm

I am rockey
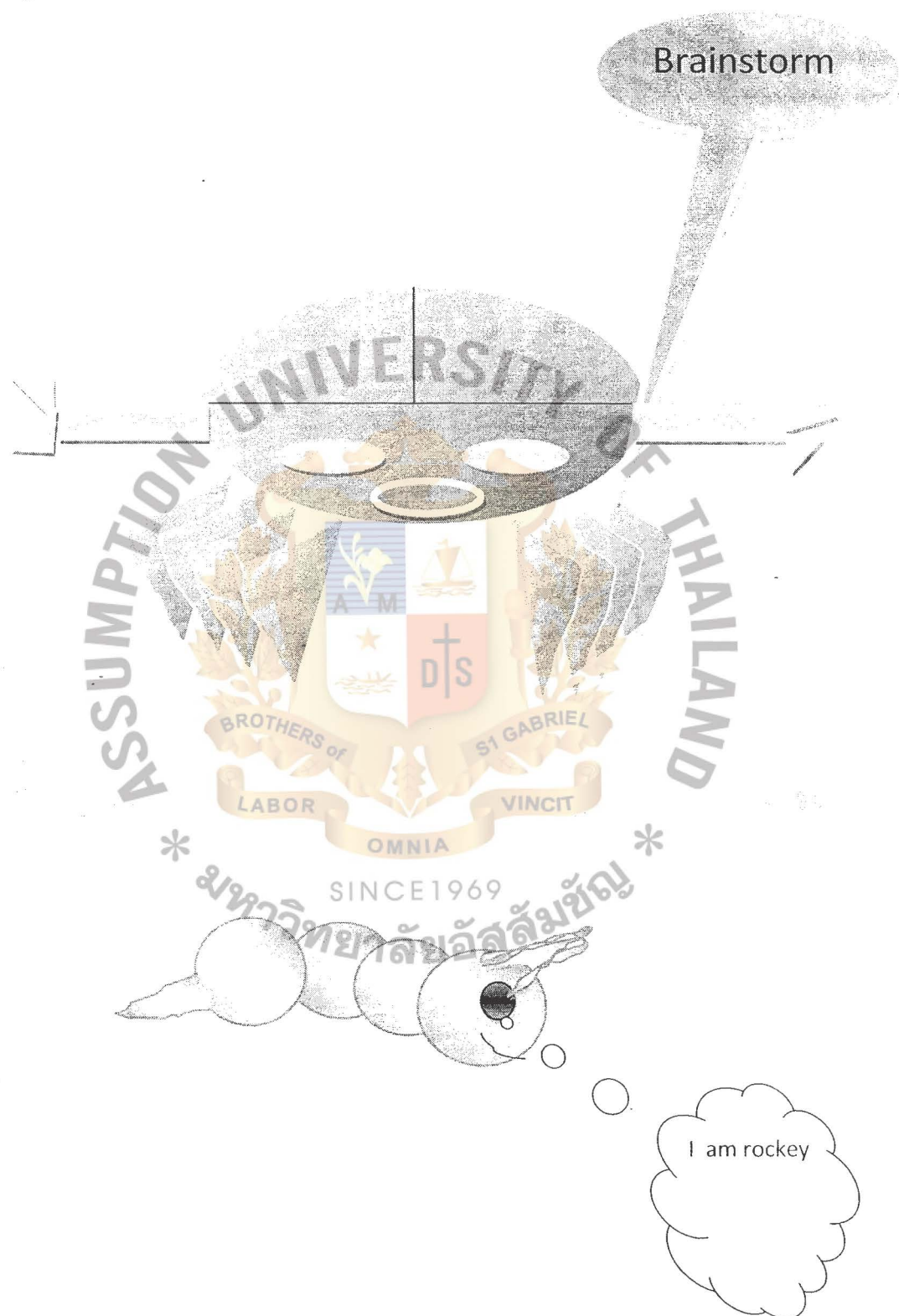
Picture 4.3: Group II activity "favorite cartoon pictures"

4.4. Phase III: Post-IDI

In this phase, researcher used classroom observation during the activities students found that 90% of students in class are paying attention to answer questions and find information from the Web site all the time and most of students in the class very happy to read about cartoon stories.

In addition, research criteria of activity test to measure the success of the activity table. Researcher has found that 90% of students in room 8 get high score rather than students in room 7. (see from the table below)

4.4.1 Rate measurement and evaluation of actual conditions.

Table 4.8: Activity score for room 7

No.	Name	Room 7 Scoring criteria						Total
		Panting	Drawing	Creating				
		10	10	10				30
34	Tanatip	8	8	9				25
35	Phuparit	8	8	8				24
36	Tatpong	8	10	8				26
37	Nattawat	9	7	8				24
38	Touchchai	8	8	10				26
39	Pannatorn	8	9	8				25
40	Pakorn	8	9	9				26
41	Siriwich	8	9	8				25
42	Warungkul	8	9	9				26
43	Kasemwat	8	8	9				25
44	Achitpol	9	8	9				26
45	Tanatip	9	9	8				26
46	Noppamai	8	9	8				25
47	Yannawut	8	8	10				26
48	Krittapas	8	8	10				26
49	Nattawut	8	10	10				28

50	Matawin	8	8	8				24
51	Sasis	8	9	10				27
52	Chayut	8	9	9				26
53	Natapatr	8	7	9				24
54	Thirawut	8	8	8				24
55	Nitikarn	8	8	8				24
56	Seathe	7	8	8				23
57	Nattapol	8	8	8				24
58	Trinnapat	8	8	8				24
59	Purinut	8	8	9				25
60	Warintorn	8	8	8				24
61	Chatrklaw	8	8	9				25
62	Warintorn	8	9	9				26
63	Woramet	8	8	8				24
64	Nattapol	9	8	8				25
65	Nattapong	8	8	8				24
66	Pokchatr	8	9	9				26
67	Jiramet	8	8	8				27

4.4.2 Rate measurement and evaluation of actual conditions.

Table 4.9: Activity score for room 8

No	Name	Room 8 Scoring criteria						Total
		Painting	Drawing	Creating				
		10	10	10				30
34	Nattaprid	10	9	9				28
35	Kankrit	10	10	10				30
36	Pakorn	10	10	10				30
37	Chayanat	10	10	10				30
38	Peeranat	10	9	9				28
39	Natapapop	10	9	8				27
40	Kongpop	10	10	7				27
41	Nattapatr	10	10	8				28

42	Natakorn	10	8	7				25
43	Chanakan	10	10	7				27
44	Chaibancha	10	8	7				25
45	Natt	10	10	10				30
46	Parisorn	10	10	10				30
47	Satitkun	10	10	10				30
48	Wachirapat	10	9	9				28
49	Jirateep	10	9	9				28
50	Pasit	10	9	9				28
51	Sapsin	10	9	9				28
52	Chawin	10	10	8				28
53	Narut	9	9	9				27
54	Patarakorn	10	10	9				29
55	Tinnapatr	10	10	10				30
56	Nattapong	10	10	10				30
57	Akrachai	10	9	9				28
58	Woraprach	10	10	10				30
59	Jetnupit	10	9	9				28
60	Napatr	10	10	10				30
61	Peerapong	10	9	9				28
62	Worapoj	9	9	9				27
63	Suwanart	10	9	9				28
64	Pongpanot	10	10	9				29
65	Sasawat	10	10	9				29
66	Suranai	10	9	10				29
67	Korapat	9	9	8				26

4.4.3 Post-IDI Performance of student's score room 7

Table 4.10: Post-IDI Performance of student's score room 7

Score Range	Quality Index	Frequency	Percentage
26-30	Excellent	13	39.39%
21-25	Superior	20	60.60%
15-20	Above average	0	0%
0-14	Lower average	0	0%
Total		33	100%

4.4.4 Post-IDI Performance of student's score room 8

Table 4.11: Post-IDI Performance of student's score room 8

Score Range	Quality Index	Frequency	Percentage
26-30	Excellent	31	93.93%
21-25	Superior	2	6.06%
15-20	Above average	0	0%
0-14	Lower average	0	0%
Total		33	100%

From students' scores of both groups we see that students from an intervention group have an effective participation rate very well. Moreover, the researcher has surveyed in the classroom atmosphere and has found that the difference is obvious the intervention group. All students are eager to perform activities with excitement, fun and learn all the time.

4.4.5 Post-IDI (student's questionnaires)

Table 4.12: Post-IDI Performance from student's questionnaires

Items	N	Mean	SD	Rating Level
Q1 Student likes to playing computer games.(in computer class)	66	2.22	.67	Disagree
Q2 Student likes to play during lunch time until the attendance study time.	66	2.30	.65	Disagree
Q3 Student likes to fight playing with friends.	66	2.46	.58	Disagree
Q4 When your friends make you angry, you will interact with indecent words immediately.	66	2.53	.53	Agree
Q5 Do not like to learn by following the computer text book but likes to doing activities.	66	2.24	.60	Disagree
Q6 Student does not have concentrate in learning, such as talk a lot, absent-minded in the classroom.	66	1.50	.50	Strongly Disagree
Q7 Students do not understand the course content that they have learned in computer class.	66	1.65	.54	Strongly Disagree
Q8 Responsibility of the students in the class are relatively low, such as do not sent homework, or do not work on assignment to send to the teacher.	66	1.68	.53	Strongly Disagree
Q9 Students absent or fled in computer classes on a regular basis.	66	1.42	.49	Strongly Disagree
Q10 Students failing to comply with lab rules regulations such as the computer lab.	66	1.27	.44	Strongly Disagree
Average for Post-IDI	**66**	**1.93**	**.18**	**Disagree**

After finishing class, the researcher used the questionnaires which were the same as phase I. The perception of respondents toward the student's behavior and discipline after IDI, it showed that the total average means was 1.93, the standard derivation was 0.18 and the rating level was disagreeing. This indicated that respondents were rejecting the current situation.

4.4.6 Post-IDI (teacher's questionnaires)

Table 4.13: Post-IDI Performance from teacher's questionnaires

Items	N	Mean	SD	Rating Level
Q1 Most of students' time in playing computer games.(in computer class)	26	1.76	.65	Disagree
Q2 Like to play during lunch time until the attendance study time.	26	2.23	.58	Disagree
Q3 Have an aggressive behavior such as, violence playing with friends.	26	2.50	.50	Disagree
Q4 Saying uncomplimentary use obscene words in conversations with friends all the time.	26	1.92	.56	Disagree
Q5 Do not like to learn by following the computer text book but likes to doing activities.	26	3.19	.56	Agree
Q6 Do not like to study hard. Do not have concentrate in school, such as talk a lot, absent-minded in the classroom.	26	3.15	.54	Agree
Q7 Students do not understand the course content that they have learned in computer class.	26	2.92	.48	Agree
Q8 Responsibility of the students in the class are relatively low, such as do not sent homework, or do not work on assignment to send to the teacher.	26	2.15	.46	Disagree
Q9 Students absent or fled in computer classes on a regular basis.	26	1.23	.42	Strongly Disagree
Q10 Students failing to comply with lab rules regulations such as the computer lab.	26	1.26	.45	Strongly Disagree
Average for Post-IDI	**26**	**2.23**	**.19**	**Disagree**

The perception of respondents toward student's behavior and discipline after IDI, present that the total average mean was 2.23, the standard derivation was 0.19 and the rating level was disagree. This is the same result with student's questionnaires result which means that student's behavior and discipline has changed.

Observation: Student's behavior

Table 4.14: shows the number of students who do not intend to study after IDI

Observation Items	Number of students who do not intend to study							
	Room 7				Room 8			
	1st	2nd	3rd	**Average**	1st	2nd	3rd	**Average**
Talkative	9	5	4	**6**	7	2	3	**4**
Annoy friends	2	2	1	**2**	1	1	2	**1**
Unmindful/abstracted	2	3	1	**2**	4	3	2	**3**
Absent class	1	0	1	**1**	1	1	0	**1**
Walk around class	2	2	1	**2**	2	1	1	**1**
Do not send homework	5	4	5	**5**	4	4	3	**4**
Total				**18**				**14**

Table 4.14 shows the number of students who do not intend to study. This table shows the student's behavior survey of students who learned computer in primary 3 room 7 and 8 which indicates behavior which the students should be improving in 6 aspects.

4.5 Hypothesis Testing

In this topic, the researcher would discuss the result of quantitative and qualitative data analysis. The researcher would answer the research question on number 3 which are: What is the initial impact of IDI on student's behavior and discipline in learning computer subject?

Ho 1: There is no initial impact of IDI on student's behavior and discipline in learning computer subject.

Ha 1: There is an initial impact of IDI on student's behavior and discipline in learning computer subject.

4.5.1 The Comparison of Mean on the Perception of Student's behavior and discipline (student's questionnaire)

Table 4.15: The Comparison of Mean on the Perception of Student's behavior and discipline.

	Items	N	Pre-IDI		Post-IDI	
			Mean	SD	Mean	SD
Q1	Student likes to play computer games. (in computer class)	66	3.78	0.41	2.22	0.67
Q2	Student likes to play during lunch time until the attendance study time.	66	3.42	0.80	2.30	0.67
Q3	Student likes to fight playing with friends.	66	2.87	0.85	2.46	0.58
Q4	When your friends make you angry, you will interact with indecent words immediately.	66	3.12	0.73	2.53	0.53
Q5	Do not like to learn by following the computer text book but likes to doing activities.	66	3.42	0.68	2.24	0.60
Q6	Student does not have concentrate in learning, such as talk a lot, absent-minded in the classroom.	66	2.24	0.97	1.50	0.50
Q7	Student does not understand the course content that they have learned in computer class.	66	3.25	0.79	1.65	0.54
Q8	Responsibility of the students in the class are relatively low, such as do not sent homework, or do not work on assignment to send to the teacher.	66	1.95	0.79	1.68	0.53
Q9	Students absent or fled in computer classes on a regular basis.	66	1.46	0.58	1.42	0.49
Q10	Students failing to comply with lab rules regulations such as the computer lab.	66	2.89	0.55	1.27	0.44
	Student's behavior and discipline	**66**	**2.84**	**0.26**	**1.93**	**0.18**

Table 4.15 shows the comparison of student discipline and behavior before and after intervention; this suggests that after the intervention process was found that student's behavior and discipline which not good was decreased the value from 2.84

to 1.9. This implied that from the intervention as a result, student's behavior and discipline have developed for the better.

4.5.2 The Comparison of Mean on the Perception of Student's behavior and discipline (teacher's questionnaires)

Table 4.16: The Comparison of Mean on the Perception of Student's behavior and discipline (teacher's questionnaire)

	Items	N	Pre-IDI		Post-IDI	
			Mean	SD	Mean	SD
Q1	Most of student's time in playing computer games. (in computer class)	26	3.19	0.74	1.76	0.65
Q2	Like to play during lunch time until the attendance study time.	26	3.80	0.40	2.23	0.58
Q3	Have an aggressive behavior such as, violence playing with friends.	26	2.96	0.72	2.50	0.50
Q4	Saying uncomplimentary use obscene words in conversations with friends all the time.	26	1.92	0.56	1.92	0.56
Q5	Do not like to learn by following the computer text book but likes to doing activities.	26	3.84	0.36	3.19	0.56
Q6	Do not like to study hard. Do not have concentrate in school, such as talk a lot, absent-minded in the classroom.	26	2.61	0.57	3.15	0.54
Q7	Students do not understand the course content that they have learned in computer class.	26	2.69	0.47	2.92	0.48
Q8	Responsibility of the students in the class are relatively low, such as do not sent homework, or do not work on assignment to send to the teacher.	26	2.69	0.73	2.15	0.46
Q9	Students absent or fled in computer classes on a regular basis.	26	1.23	0.42	1.23	0.42
Q10	Students failing to comply with lab rules regulations such as the computer lab.	26	2.92	0.74	1.26	0.45
	Student's behavior and discipline	**26**	**2.78**	**0.19**	**2.23**	**0.19**

Table 4.16 shows the comparison of student discipline and behavior before and after intervention in purpose of the teacher in class related to the target. This suggests that after the intervention process was found that student's behavior and

discipline which not good was decreased the value from 2.78 to 2.23. This implied that from the intervention as a result, student's behavior and discipline have developed for the better.

4.5.3 Summary of the comparison of the Number of students who do not intend to study before and after IDI

Table 4.17: The summary table of the comparison of the number of students who do not intend to study before and after IDI

Observation Items	Number of students who do not intend to study for 3 times before and after IDI			
	Room 7		Room 8	
	before	after	before	after
Talkative	14	6	15	4
Annoy friends	4	2	4	1
Unmindful/abstracted	5	2	7	3
Absent class	1	1	2	1
Walk around class	5	2	6	1
Do not send homework	12	5	16	4
Total	41	18	50	14

From the table 4.17 indicated the summary of the comparison of the number of students who do not intend to study before and after IDI. It showed that they were improved their behavior and discipline into positive way in the classroom.

4.5.4 The Paired Sample t-test Analysis: Student's questionnaires before and after IDI

Table 4.18: Pair Sample t-test on student's questionnaires before and after IDI

	N	Mean	SD	t-test	P-Value
Pre-IDI (student's questionnaires)	66	2.84	.262	25.97	.000
Post-IDI (student's questionnaires)	66	1.93	.188		

From the table 4.18 the Paired Sample T-Test on student's questionnaires before and after IDI, it showed that the total average mean of Pre-IDI was 2.84 and the standard derivation was 0.262. After implementation of the IDI activity, the total average mean of Post-IDI was 1.93 and the standard derivation was 0.188. The P-Value was 0.00 which was less than the significance level of 0.05 so, it shows that the hypothesis (Ho 1) was rejected and the hypothesis (Ha 1) was accepted. This is suggesting that there was a significant difference in the student's behavior and discipline before and after IDI.

4.5.5 Pair Sample t-test Analysis: Teacher's questionnaires

Table 4.19: Pair Sample t-test on teachers' questionnaires before and after IDI

	N	Mean	SD	t-test	P-Value
Pre-IDI (teacher's questionnaires)	26	2.78	.198	12.08	.000
Post-IDI (teacher's questionnaires)	26	2.23	.197		

From the table 4.19 the Paired Sample T-Test on teacher's questionnaires before and after IDI, it showed that the total average mean of Pre-IDI was 2.78 and the standard derivation was 0.198. After implementation IDI activity, the total average mean of Post-IDI was 2.23 and the standard derivation was 0.197. The P-Value was 0.00 which was less than the significance level of 0.05 so, it show that the hypothesis (Ho 1) was rejected and the hypothesis (Ha 1) was accepted.

CHAPTER 5

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

AND EPILOGUE

This chapter presents the summary of findings, conclusion and recommendations for future study and epilogue.

5.1 Summary of findings

This study was conducted based on 92 respondents who are teachers in disciplinary affairs office, teachers in primary 3 level, student in primary 3 level room 7 and room 8. Assessment on activity of room 7 and 8 during pre-IDI are both having the same result. Both rooms moderately manifest the stimulation of interest, fostering collaboration, establishing rapport; encourage involvement and structured classroom experienced. While the post-IDI results show a different perspective or change in the level of manifestation in room 7 as compared to room 8.

Table 5.1 summary of Quantitative result

Variable	Mean of Pre-IDI	Mean of Post-IDI	Difference of Mean	t	P-value	Result to Ho
Student's Questionnaires	2.84	1.93	-0.91	25.97	0.00	Reject
Teacher's Questionnaires	2.78	2.23	-0.55	12.08	0.00	Reject

There were positive way changes students' behavior and discipline in primary 3 room 7 and 8 computer subjects after implementing the IDI activities as show in the table below:

Table 5.2 Summary of Qualitative result

Variable	Result after IDI
Student's behavior and discipline	Students have self behavior and self discipline such as; - Intend to study - No talking or walking in the class - Agreeable friends - Come to the class on time - Always send their homework - Accept the computer labs' rule

5.2 Conclusion for each area of study

The main purpose of the study is to investigate the initial impact of IDI on student's behavior and discipline in learning computer subject.

5.2.1 Student's behavior and discipline

The study design was developed into three phases: Pre-IDI, IDI, and Post-IDI. The Pre-IDI phase was the process to identify student's behavior and discipline. Moreover, it was the process to find appropriate IDI activities to improve its current situation. In IDI phase it was the taking action phase in each variable.

Intervention from the sample room 8 found students with an enthusiasm for computer classes. Because students have learned how to use a computer to benefit more than playing games. For the students' behavior and discipline after implementing IDI activities, the finding show that the students was interested in learning computer subjects. Students had more attention in the class room and developed their behavior and discipline better than the past. Therefore, as a whole, it can be concluded that there was an impact of IDI on student's behavior and discipline.

5.3 Recommendations

According to the summary findings of this research study, the researcher purposed IDI plans in order to continually improve the efficiently of the entire organization that include the school, the teachers and the students The recommendations would not only for students in primary 3 computer subjects because the student's behavior and discipline and teacher in secondary 6 but also for further study.

Recommendation for this study is that solving the problem behavior and discipline of students with classroom activities only may not cover the real cause of problems for example; the problem of students do not send their homework may not be caused by a lazy, but it can be that they are not ready to learn or they have too much homework. Therefore, suggestions for future research should be expanded the finding cause of the problem for more organized, or how to solve the problem more.

Epilogue

Before I enrolled in the course MMOD, I had several concerns. The first, concern was about my learning, listening, speaking, writing and understanding English. Which I thought I could not as this course was in English. However, finally I decided to learn MMOD course for improving myself, my life and work experience to even greater prosperity.

Now, I finished this course which makes me to understand the MMOD clarification. And I can use the knowledge obtained from this study to apply to use in my life and my work place as well. My advisors always gave me more suggestions that helped me to complete and understand the details of MMOD step by step. My advisors were always guiding me on how to improve my thesis.

While I was doing this thesis, I had learned lots of new experiences such as; knowing myself, how to manage my brain map, how to connect with others, how to pursues, find the real cause of the problem, how to manage the classroom, how to solve the problems and how to improve student's behavior and discipline by suing IDI method. Statistics is a very important factor of the thesis which supports me to better understand the cause of the problems and revise them directly. All of these reasons are the best answers that tell me why I have to learn MMOD? How does MMOD work? and How to apply MMOD in organizations?

Finally, I will apply all knowledge that I got and received experience from MMOD to improve myself and my organization for further advancement. I also share this experiences with my colleagues for developing my organization to become a world class school in the future.

BIBLIOGRAPHY

Books

Bainbridge, C. (1996). *Designing for change: A practical guide for business transformation.* New York: John Wiley.

Barnett, H. G. (1953). *Innovation: The Basis of Culture Change,* McGraw-Hill, NY.

Beckhard, "Organization development: Strategies and Models", Reading, MA: Addison-Wesley, 1969, p. 9.

Beitler, M. A. (2006). *Strategic Organizational Change*, 2nd Ed. Practitioner Press International, Greensboro, NC.

Bennis, W. G., K. D. Benne, & R Chin. (1985). *The Planning of Change*, 4th Ed., CBS College Publishing, NY.

Bennis, W. (1981). The Five Key Traits of Successful Chief Executives, International Management, October.

Blumberg, A. & W. Wiener. (1971). *One from Two: Facilitating an Organizational Merger, Journal of Applied Behavioral Science,* Vol. 7.

Caravatta, M. (1998). *Let's work smarter, not harder: How to engage your entire organization in the execution of change.* Milwaukee, WI: ASQ Quality Press.

Card, S., Moran, T, & Newell, A. (1983). The psychology of human-computer interaction. Hillsdale, NJ:Earlbaum.

Carroll, J.M. (2003). HCI models, theories and frameworks: Towards a multidisciplinary science. Morgan Kaufmann Publishers.

Conger, J.A., Spreitzer, G.M. & Lawler, III, E.E. (eds.) (1999). *The leader's change handbook: An essential guide to setting direction and taking action.* San Francisco: Jossey-Bass.

(1980) *Corporate Culture: The Hard-to-Change Values That Spell Success or Failure, Business Week*, October 27.

Dube, S. C. (1992). *Understanding Change: Anthropological & Sociological Perspectives.*

Duncan, R. (1972b). *Organizational Climate for Change in Three Police Departments: Some Preliminary Findings, Urban Affairs Quarterly,* Vol. 8 No.2.

Eccles, T. (1994). *Succeeding with change: Implementing action-driven strategies.* New York: McGraw-Hill.

Flamholtz, E. & Randle, Y. (1998). *Changing the game: Organizational transformations of the first, second, and third kinds.* New York: Oxford University Press.

Frye, N. (October 1969). *The Ethics of Change: The Role of the University, The School Guidance Worker.*

Galpin, T. J. (1996). *The human side of change: A practical guide to organization redesign.* San Francisco: Jossey-Bass.

Glueck, W. F. (1980). Business *Policy and Strategic Management.* McGraw-Hill, NY.

Gross, N., J. B. Giacquinta, & M. Bernstein (1971). *Implementing Organizational Innovation: A Sociological Analysis of Planned Change,* Basic Books, NY.

Hambrick, D.C., Nadler, D.A. & Tushman, M. L. (1998). *Navigating change: How CEOs, top teams, and boards steer transformation.* Boston, MA: Harvard Business School Press.

Hendry, J., Johnson, G. & Newton, J. (1993). *Strategic thinking, leadership, and the management of change.* New York: J. Wiley.

Homans, G. (1974). *Social Behavior: Its Elementary Forms,* 2nd ed., Harcourt, Brace, Jovanovich, NY.

Johnson, D. W. (1969). *Influence on Teachers' Acceptance of Change, Elementary School Journal,* Vol. LXX, December.

Kanter, R. M. (1981). *Power and Enterprise in Action: Conditions and Strategies for Entrepreneurial Accomplishments among Corporate Middle Managers,* USC Business School Lecture, November 18.

Kelly, P. & M. Kranzberg, Eds. (1978). *Technological Innovation: A Critical Review of Current Knowledge.* San Francisco Press, San Francisco, CA.

Kiesler, C. A. & S. B. Kiesler (1970). *Conformity,* Addison-Wesley, Reading, Mass.

Kotter, J. P. (1996). *Leading Change.* Boston: Harvard Business School Press.

Lawler, E. E. (1980). *Creating High Involvement Work Organizations.* USC Center for Effective Organizations, Los Angeles.

Lawler, E. E. & J. A. Drexler. (1980). *The Corporate Entrepreneur.* USC Center for Effective Organizations, Los Angles.

Leban, B. and R. Stone. (2008). *Managing Organizational Change*. John Wiley & Sons.

Lehr, L. (1979). *Stimulating Technological Innovation - The Role of Top Management, Research Management*, November, 23-25.

Lewin, K. (1951). Field theory in social science: Selected theoretical papers. New York, NY: Harper & Row.

Lippitt, R., J. Watson, and B. Wesley. (1958). *The Dynamics of Planned Change*, New York: Harcourt, Brace & Jovanovich.

Marrow, A., D. Bowers, & S. Seashore (1967). *Management by Participation*, Harper & Row, NY.

Martin, J. (1995). *The Great Transition: Using the Seven Disciplines of Enterprise Engineering to Align People, Technology, and Strategy*, AMACOM, American Management Association, NY, NY.

Maslow, Abraham H. (1970). Motivation and Personality (p. 28). New York: Harper & Row

McWhinney, W. (1992). *Paths of Change*. Sage Publications.

Nadler, D.A., Shaw, R.B. & Walton, A.E. (1995). *Discontinuous change: Leading organizational transformation*. San Francisco: Jossey-Bass.

Nadler, D. A. (1998). *Champions of change: How CEOs and their companies are mastering the skills of radical change*. San Francisco: Jossey-Bass.

Nardie, B. (1996). Context and consciousness: Activity theory and human computer interaction. Cambridge, MA: MIT Press.

Nevis, E.C., Lancourt, J., & Vassallo, H.G. (1996). *Intentional revolutions: A seven-point strategy for transforming organizations*. San Francisco: Jossey-Bass.

Noer, D. M. (1997). *Breaking free: A prescription for personal and organizational change*. San Francisco: Jossey-Bass.

Nickols, F. (2006) *Change Management 101: A Primer*. http://home.att.net/~nickols/change.htm

O'Toole, J. (1981b). *Making America Work*. Continuum, NY.

Ouchi, W. (1981). *Theory Z: How American Business Can Meet the Japanese Challenge*, Addison-Wesley, Reading, Mass.

Pascale, R. T. & A. Athos. (1981). *The Art of Japanese Management*. Simon and Schuster, NY.

Pasmore, W.A. (1994). *Creating strategic change: Designing the flexible, high - performing organization*. New York: J. Wiley

Peters, T. J. (1980). *Putting Excellence into Management, Business Week*, July 21, 196-205.

Pettigrew, A. M. (ed.) (1988). *The management of strategic change*. New York: B. Blackwell.

Quinn, J. B. (1978). *Technological Innovation, Entrepreneurship and Strategy, Sloan Management Review*, Spring, 19-29.

Quinn, R.E. (1996). *Deep Change: Discovering the leader within*. San Francisco: Jossey-Bass.

Reason, J. (1990). Human Error. Cambridge University Press.

Rogers, E. M. & F. F. Shoemaker (1971). *Communication of Innovations: A Cross-Cultural Approach*, The Free Press, NY.

Rothman, J. (1974). *Planning and Organizing for Social Change*. Columbia University Press, New York.

Schwartz, B. M. and R. H. Ewald. (1968). *Culture and Society*, Ronald Press Co., New York.

Senge, P. et. el. (1999) *The Dance of Change*, Currency/Doubleday, NY, NY.

Wallace, A. F. C. (1956). *Revitalization Movements, American Anthropologist* 58:264-81.

Wallace, B. & Ridgeway, C. (1996). *Leadership for strategic change*. London, UK: Institute of Personnel and Development.

Walton, R. E. (1979). *Work Innovations in the United States, Harvard Business Review*, July-August, 88-98.

Watson, G. (1971). *Resistance to Change, American Behavioral Scientist*. Vol 14, May-June.

Waterman, R. H., Jr., T. J. Peters, & J. R. Phillips (1980). *Structure Is Not Organization*, Business Horizons, June, 14-26.

Weber, M. (1947). *The Theory of Social and Economic Organization,* A. M. Henderson and T. Parsons (translators), The Free Press, NY.

Wilson, D.C. (1992). *A strategy of change: Concepts and controversies in the management of change*. New York: Routledge.

Zaltman, G. and R. Duncan. (1977). *Strategies for Planned Change*. John Wiley & Sons.

Electronic sources

Neilsen, "Becoming an OD Practitioner", Englewood Cliffs, CA: Prentice-Hall, 1984, pp. 2-3. *http://managementhelp.org/org_chng/od-field/OD_defn.htm*

Schein, E. (1990). *Kurt Lewin's in the field and in the classroom: notes toward a model of managed learning, Occasional paper, MIT Sloan School of Management.* http://www.solonline.org/res.wp/10006.html

http:://www.yesaustralia.com/cursoestudo-sistemaensinoing.htm

http://www.japan-guide.com/e/e2150.html

http://managementhelp.org/org_thry/org_sytm.htm

http://mot.vuse.vanderbilt.edu/mt322/Oas.htm

www.management-hub.com/changemanagement59.htm

http://managementhelp.org/org_thry/org_sytm.htm

http://www.nwlink.com/~donclark/leader/leadhb.html

http://www.nde.state.ne.us/HSR/documents/Discipline.ppt

http://www.stevepavlina.com/blog/2005/06/self-discipline/

Appendix A

Questionnaire: behavior and discipline of student

Questionnaire for Computer's teachers and teachers in primary 3 level

About behavior and discipline of students in computer class

****

Part 1: Demographic Profiles

Direction: Please complete the following information about yourself by put mark (✓) in the blank describe to your own profile. It is necessary to gather this data for the usefulness of research analysis.

1. Gender

   ( ) Male   ( ) Female

2. Age

   ( ) 20-25   ( ) 26-30   ( ) Over 31

3. Class level

   ( ) Level 1   ( ) Level 2   ( ) Level 3   ( ) Level 4

Part 2: Student's behavior and discipline

Direction: Please comment on the following issues by putting ✓ into the reviews box to showing your most opinion.

Current situation of Students' behavior and discipline in computer class	Strongly agree	Agree	Disagree	Strongly disagree
1. Most of students' time in playing computer games. (in computer class)				
2. Like to play during lunch time until the attendance study time.				
3. Have an aggressive behavior such as, violence playing with friends.				
4. Saying uncomplimentary use obscene words in conversations with friends all the time.				
5. Do not like reading academic books but likes to read cartoon books.				
6. Do not like to study hard. Do not have concentrate in school, such as talk a lot, absent-minded in the classroom.				

7.	Students do not understand the course content that they have learned.				
8.	Responsibility of the students in the class are relatively low, such as do not sent homework, or do not work on assignment to send to the teacher.				
9.	Students absent or fled in computer classes on a regular basis.				
10.	Students failing to comply with lab rules regulations such as the computer lab and other laboratories.				

แบบสอบถามครูหมวดคอมพิวเตอร์และครูระดับชั้นประถมศึกษาปีที่ 3

เกี่ยวกับพฤติกรรมและระเบียบวินัยของนักเรียนในห้องเรียนคอมพิวเตอร์

****

Part 1: Demographic Profiles

Direction: Please complete the following information about yourself by put mark (✓) in the blank describe to your own profile. It is necessary to gather this data for the usefulness of research analysis.

1. Gender: ( ) Male   ( ) Female

2. Age :   ( ) 20-25   ( ) 26-30   ( ) Over 31

3. Class level: ( ) Level 1   ( ) Level 2   ( ) Level 3   ( ) Level 4

Part 2: Student's behavior and discipline

โปรดแสดงความคิดเห็นในประเด็นต่อไปนี้ โดยทำเครื่องหมาย ✓ ในช่องแสดงความคิดเห็น ให้ตรงกับความคิดเห็นของครูมากที่สุด

สภาพปัจจุบันเกี่ยวกับพฤติกรรมและระเบียบวินัยของนักเรียนในห้องเรียนคอมพิวเตอร์	เห็นด้วยอย่างยิ่ง	เห็นด้วย	ไม่เห็นด้วย	ไม่เห็นด้วยอย่างยิ่ง
1. ใช้เวลาส่วนใหญ่ในการเล่นเกมคอมพิวเตอร์				
2. ชอบวิ่งเล่นในระหว่างพักกลางวันจนกระทั่งหมดเวลาพัก				
3. มีพฤติกรรมก้าวร้าว ชอบเล่นต่อสู้ รุนแรง กับเพื่อน ๆ				
4. พูดจาไม่สุภาพ ใช้วาจาหยาบคายในการพูดคุยกับเพื่อนตลอดเวลา				
5. ไม่ชอบเรียนตามหนังสือเรียน แต่ชอบปฏิบัติกิจกรรมอย่างเดียว				
6. ไม่ตั้งใจเรียน ไม่มีสมาธิในการเรียนเช่น คุย เล่นเหม่อ ในชั่วโมงเรียน				

7. นักเรียนไม่เข้าใจเนื้อหาที่เรียนในห้อง คอมพิวเตอร์				
8. นักเรียนมีความรับผิดชอบในการเรียนค่อนข้าง น้อย เช่น ไม่ส่งการบ้าน ไม่ทำงานส่งครู				
9. นักเรียนขาดเรียน หนีเรียน ในวิชาคอมพิวเตอร์ เป็นประจำ				
10. นักเรียนไม่ปฏิบัติตามกฏระเบียบการใช้ ห้องปฏิบัติการเช่น				

Questionnaire for Student in primary 3 level

About behavior and discipline of students in computer class

****

Part 1: Demographic Profiles

<u>Direction:</u> Please complete the following information about yourself by put mark (✓) in the blank describe to your own profile. It is necessary to gather this data for the usefulness of research analysis.

1. Gender

    ( ) Male   ( ) Female

2. Age

    ( ) 7   ( ) 8   ( ) 9 or over

3. Class level

    ( ) Level 1   ( ) Level 2   ( ) Level 3   ( ) Level 4

Part 2: Student's behavior and discipline

<u>Direction:</u> Please comment on the following issues by putting ✓ into the reviews box to showing your most opinion.

Current situation of Students' behavior and discipline in computer class	Strongly agree	Agree	Disagree	Strongly disagree
1. Student likes to play computer games.				
2. Student likes to play during lunch time until the attendance study time.				
3. Student likes to fight playing with friends.				
4. When your friends make you angry, you will interact with indecent words immediately.				
5. Do not like to learn by following the computer text book but likes to doing activities.				
6. Student does not have concentrate in learning, such as talk a lot, absent-minded in the classroom.				

7.	Student does not understand the course content that you have learned.				
8.	Responsibility of the students in the class are relatively low, such as do not sent homework, or do not work on assignment to send to the teacher.				
9.	Students absent or fled in computer classes on a regular basis.				
10.	Students failing to comply with lab rules regulations such as the computer lab.				

แบบสอบถามนักเรียนระดับชั้นประถมศึกษาปีที่ 3

เกี่ยวกับพฤติกรรมและระเบียบวินัยของนักเรียนในห้องเรียนคอมพิวเตอร์

****

Part 1: Demographic Profiles

<u>Direction</u>: Please complete the following information about yourself by put mark (✓) in the blank describe to your own profile. It is necessary to gather this data for the usefulness of research analysis.

1. Gender

   ( ) Male   ( ) Female

2. Age

   ( ) 20-25   ( ) 26-30   ( ) Over 31

3. Class level

   ( ) Level 1   ( ) Level 2   ( ) Level 3   ( ) Level 4

Part 2: Student's behavior and discipline

โปรดแสดงความคิดเห็นในประเด็นต่อไปนี้ โดยทำเครื่องหมาย ✓ ในช่องแสดงความคิดเห็น ให้ตรงกับความคิดเห็นของนักเรียนมากที่สุด

สภาพปัจจุบันเกี่ยวกับพฤติกรรมและระเบียบวินัยของนักเรียนในห้องเรียนคอมพิวเตอร์	เห็นด้วยอย่างยิ่ง	เห็นด้วย	ไม่เห็นด้วย	ไม่เห็นด้วยอย่างยิ่ง
1. นักเรียนชอบเล่นเกมคอมพิวเตอร์				
2. นักเรียนชอบเล่นในระหว่างพักกลางวันจนกระทั่งหมดเวลาพัก				
3. นักเรียน ชอบเล่นต่อสู้ กับเพื่อน ๆ				
4. เมื่อเพื่อนทำให้นักเรียนโกรธ นักเรียนจะตอบโต้ด้วยวาจาไม่สุภาพทันที				
5. ไม่ชอบเรียนตามหนังสือเรียน แต่ชอบปฏิบัติกิจกรรมอย่างเดียว				

6. นักเรียน ไม่มีสมาธิในการเรียนเช่น คุย เล่น เหม่อ ใน ชั่วโมงเรียน				
7. นักเรียนไม่เข้าใจเนื้อหาที่เรียนในห้องคอมพิวเตอร์				
8. นักเรียนมีความรับผิดชอบในการเรียนค่อนข้างน้อย เช่น ไม่ส่งการบ้าน ไม่ทำงานส่งครู				
9. นักเรียนขาดเรียน หนีเรียน ในวิชาคอมพิวเตอร์เป็น ประจำ				
10. นักเรียนไม่ปฏิบัติตามกฏระเบียบการใช้ ห้องปฏิบัติการเช่น				

Questionnaire for Students in primary 3 level

About students' favorite cartoons

****

Please write the name of the top five favorite cartoons that you like by writing the name of a favorite cartoon and the reasons of why you like these cartoons.

My favorite cartoon number one is ....

....

I like this cartoon because..

....

My favorite cartoon number two is ....

....

I like this cartoon because ....

....

My favorite cartoon number three is ....

....

I like this cartoon because ....

....

My favorite cartoon number four is ....

....

I like this cartoon because ....

....

My favorite cartoon number five is ....

....

I like this cartoon because ....

....
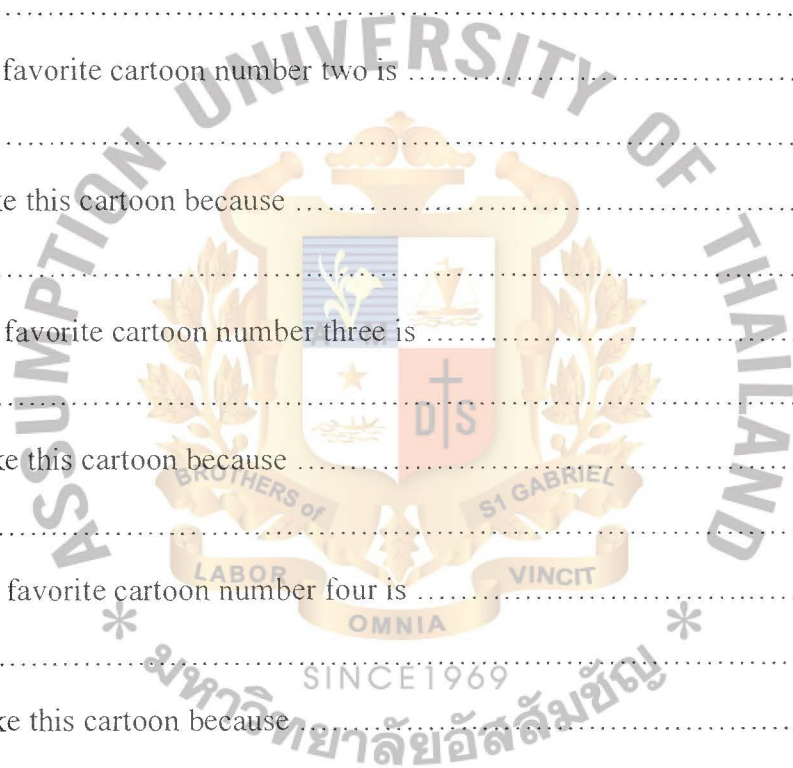
แบบสอบถามนักเรียนระดับชั้นประถมศึกษาปีที่ 3

เกี่ยวกับการ์ตูนที่นักเรียนชอบ

****

โปรดระบุการ์ตูนที่นักเรียนชอบมา 5 ลำดับ โดยเขียนชื่อตัวการ์ตูนที่ชอบ เรียงตามลำดับที่นักเรียนชอบ และ

แสดงเหตุผลที่นักเรียนชอบการ์ตูนตัวนั้น ๆ ด้วย

การ์ตูนตัวโปรดของฉัน อันดับแรกชื่อ ....

ฉันชอบการ์ตูนตัวนี้เพราะ ....

....

การ์ตูนตัวโปรดของฉัน อันดับสองชื่อ ....

ฉันชอบการ์ตูนตัวนี้เพราะ ....

....

การ์ตูนตัวโปรดของฉัน อันดับสามชื่อ ....

ฉันชอบการ์ตูนตัวนี้เพราะ ....

....

การ์ตูนตัวโปรดของฉัน อันดับสี่ชื่อ ....

ฉันชอบการ์ตูนตัวนี้เพราะ ....

....

การ์ตูนตัวโปรดของฉัน อันดับห้าชื่อ ....

ฉันชอบการ์ตูนตัวนี้เพราะ ....

....

Appendix B

Pair Sample t-test Analysis
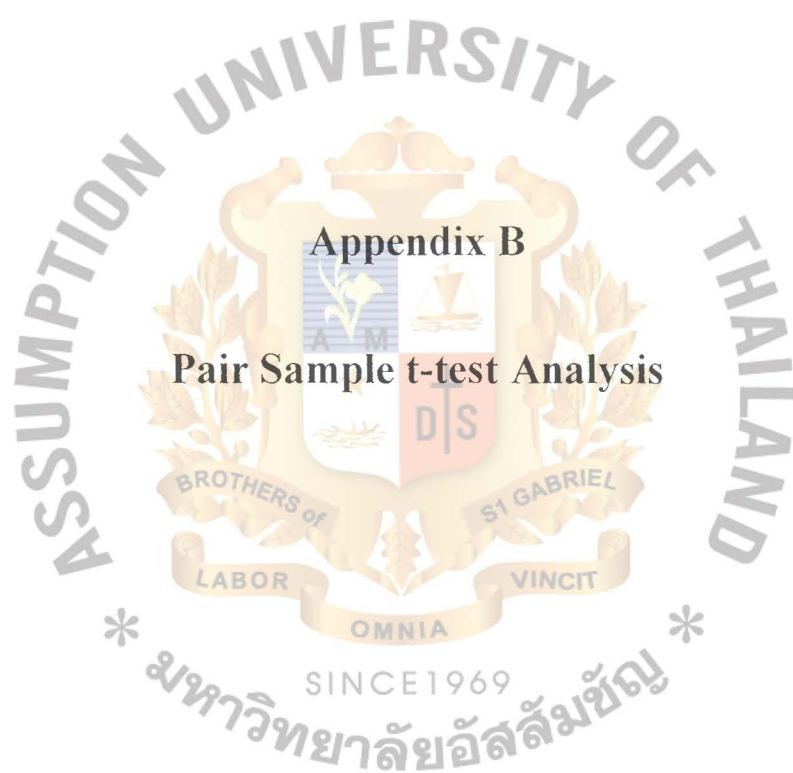
Paired Statistic

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pre students	2.8455	66	.26264	.03233
	post student	1.9303	66	.18808	.02315
Pair 2	pre teacher	2.7885	26	.19865	.03896
	post teacher	2.2346	26	.19787	.03881

Paired Correlation

		N	Correlation	Significance
Pair 1	pre students and post student questionnaire	66	.227	.067
Pair 2	pre teacher and post teacher questionnaire	26	.306	.129

Paired Samples Test

		Paired Differences					t	df	Sig(2-tailed).
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	pre students - post student questionnaire	.91	.28	.035	.84	.98	25.97	65	.00
Pair 2	pre teacher - post teacher questionnaire	.55	.23	.045	.45	.64	12.08	25	.00

Appendix C

No	Name	Room .... Scoring criteria						Total
		Painting	Drawing	Creating				
		10	10	10				30
34								
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Appendix D

Post-IDI Performance of Room 7

Score Range	Quality Index	Frequency	Percentage
26-30	Excellent	13	39.39%
21-25	Superior	20	60.60%
15-20	Above average	0	0%
0-14	Poor	0	0%
Total		33	100%

Post-IDI Performance of Room 8

Score Range	Quality Index	Frequency	Percentage
26-30	Excellent	31	93.93%
21-25	Superior	2	6.06%
15-20	Above average	0	0%
0-14	Poor	0	0%
Total		33	100%