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# Editor's Notes

The La Salle University (LSU) researchers featured in the November-December issue tackle a wide range of topics covering students & teachers' academic concerns to employees' interests to designing systems.

This issue features three papers on computer software design and application specifically suited for some units such as the engineering laboratories, the accounting office in the university; two papers on employees - one regarding the extent of economic relief of Republic Act 9504; the other, about the impact of extended overtime on labor productivity. Last two papers aiming to improve academic programs launched on (1) finding out how reading techniques help LSU college students gain skills in comprehension, (2) determining the reading proficiency and the perception of students towards tutorial program. The findings of these research are the bases of the authors for improving their programs.

Once again, the Lasallian Research Forum has crossed the boundaries of academic disciplines by featuring these eight researches.

# The Extent of Economic Relief of RA 9504 to Employees of La Salle University

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#### **Abstract**

The enactment of RA 9504 in 1998 was for the purpose of giving economic relief to individual taxpayers. The said law increases the basic personal exemption to Php 50, 00.00 from Php 20, 000.00 if the taxpayer is single, Php 25, 000.00 I if the taxpayer is a head of the family and Php 32, 000.00 if the taxpayer is married. In addition, this law raises the basic additional exemptions for every qualified dependent child to Php 25, 000.00 each from Php 8, 000.00. Whether or not this law will bring economic relief to employees of LSU is the problem that was looked into by this research

The research showed that there is substantial economic relief to employees of La Salle University. Collectively, the group of taxpayers who get the most benefit of the new law are the married ones with 3 or 4 qualified dependent children, with a withholding tax reduction per pay day of Php 887.00 and an income tax reduction of Php 3, 000.00-Php 5, 000.00.

#### 1. Introduction

In 1997, the Philippine congress enacted R.A. 8424 which is otherwise known as the "Tax Reform Act of 1997". The said law amended the National Internal Revenue Code of the Philippines and provides wide-ranging tax breaks to different groups of individuals including overseas Filipinos. Section 23 of the law, a non-resident citizen will be taxed only on income derived from sources within the Philippines (NIRC, 1997). In 2008, the Philippines experienced a major economic blow. BSP reported inflation rate on food, beverage and tobacco reached as high as 17.8% in July while fuel, electricity and water's inflation reached 8.2% in May. At an average, the inflation rate

on all commodities reached as high as 12.4% in July at an average inflation increase rate of 1.28% from the month of January. With these economic conditions, the President, Her Excellency, Mme Gloria M. Arroyo urged the congress to fast track the passing of House Bill 3971 which is consolidated with the Senate Bill 2293. On May 27, 2008, it passed Congress and it passed the Senate the following day. On June 17, 2008, the President signed into law R.A. 9504 otherwise known as the "Tax Relief Law of 2008". Its primary purpose is to grant tax relief to individual taxpayers to cope with the adverse economic condition of the time.

Prima facie, the law brings relief to individual taxpayers. It increases the basic personal exemption to P50, 000 regardless of the status - from P20, 000 for single, P25, 000 for head of the family and P32, 000 for married individuals. Mathematically, it decreases the net taxable income by P30, 000 of single individual, P25, 000 of head of the family and P18, 000 of married individuals (Ballada, 2008, Reyes, 2007). In addition, it raises the additional personal exemption to P25, 000 per qualified dependent child from P8, 000 under R.A. 8424. Further, the new law exempts individuals earning minimum wage or earning P10, 000 a month whichever is higher from the withholding of income tax. However, the law does not exempt them from paying the income tax at the end of the year.

The law takes effect on July 6, 2008. But just like any new law enacted, it requires the implementing rules and regulations, of which in this case, a revenue regulation is required from the BIR. A draft revenue regulation (RR) was released for comment on June 26, 2008. The said RR provides that the new law is prospective in application. In addition, it provides two sets of withholding tax tables — the Transitional Withholding Tax Table to be applied on income earned from July to December of 2008 and the Withholding Tax Table to be used starting year 2009. However, on December 18, 2008, RR16-2008 was released providing that the personal and additional exemption in the year of transition should be averaged (RR, 2008).

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# 2. The Problem and Methodology

Though on its face, undeniably, the new law is beneficial to the individual taxpayer, but up to what extent will it benefit us employees of La Salle University? Specifically, what could be the answers to the following questions:

- 1. What is the profile of LSU employees as income tax payers?
- 2. What could be the average decrease of withholding tax per employee and per classification?
- 3. How much will be the difference in the 2008 income tax liability under R.A. 8424 and under R.A. 9504?
- 4. Will the decrease of withholding tax, compensate the inflation of basic commodities?

This research is a descriptive-comparative and evaluative research. The units under study were the 187 employees of LSU of the S.Y. 2008-2009. The researcher used the secondary data furnished by the LSU Accounting Office.

#### 3. Results and Discussion

Using the data from the accounting office on the basic salary of 187 La Salle University Employees of S.Y. 2008-2009, 43% of the LSU Employees are single, 9% are head of the family and 48% are married. The taxpayers' profile dispersion is shown below in Figure 1:

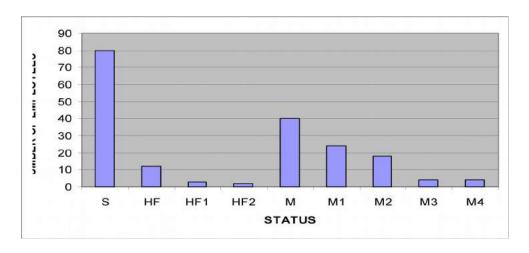
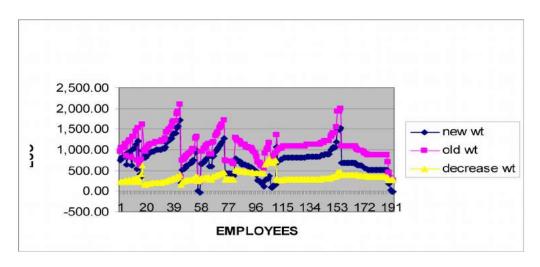


Figure 1: LSU Employees Exemption Dispersion

Of the 48% married taxpayers, 44% are married without qualified dependents, 26% are married with one qualified dependent child, 20% are married with two qualified dependent children, and the remaining 10% are married with three or four qualified dependent children.

Individually, the withholding tax under the R.A. 8424 and under R.A. 9504 has a substantial difference to as low as P187 per pay day to as high as P694 per pay day but at average, the withholding tax reduction will only be P336 as shown in Figure 2 below:



**Figure 2:** Semi-monthly Withholding Taxes and their Differences Under RA 8424 and Under R.A. 9504

Collectively, married taxpayers with three and four qualified dependents gets the most benefit from the new tax law with new withholding taxes lower than the reduction of withholding tax as shown in Figure 3 that follows:

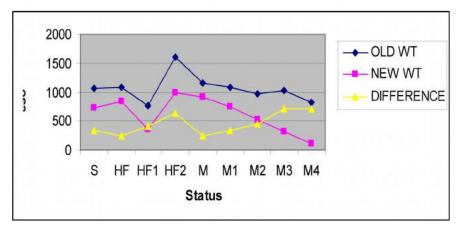
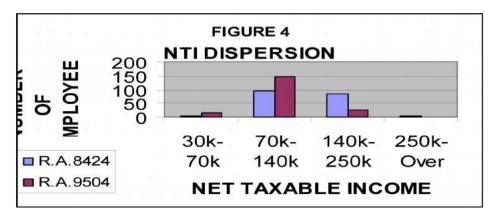


Figure 3

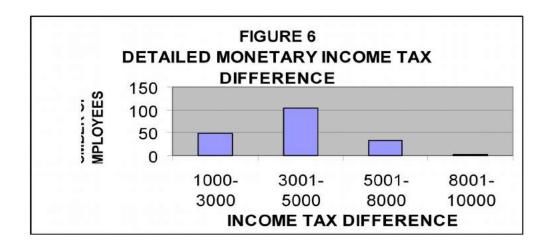
Numerically, married individuals have a withholding tax savings of as high as P887 per pay day or an 89% reduction of the withholding tax.

Figure 4 below shows the dispersion of LSU employees according to their Net Taxable Income (NTI) bracket under the old law and under the new law. The NTI brackets are those used in the tax table for individual taxpayers.



Evident from Figure 4 is a significant shift from higher net taxable income bracket to lower net taxable income bracket under the new law (RA9504). There are ten (10) employees who are under the net taxable income bracket of P70, 000-P140, 000 in RA 8424 who will be under the net taxable income bracket of P30, 000-P70, 000 in the new law RA9504. However, the net taxable income bracket of P70, 000 – P140, 000 will increase by 51 employees as there is a significant drop of 57 employees who have a net taxable income bracket of P140, 000-P250, 000 and employees of net taxable income bracket of over P250, 000.

RA 9504 will have a significant economic benefit for the LSU employees as shown in figure 6 below.



Most (55%) of the employees will have an income tax reduction of P3,000-5,000, 26% will have an income reduction of P1,000-P3.000, 17% will have an income tax reduction of P5,000-P8,000 and only 2% will have an income tax reduction of P8,000-P10,000.

Since the lowest withholding tax reduction per pay day is 15% of the original withholding tax and the inflation rate for all items in average in 2008 is 9.3, the reduction in withholding tax due to the enactment of new law will substantially compensate the inflation in 2008

#### 4. Conclusion

Based on the above results and findings, the enactment of RA 9504 brings substantial economic relief to employees of La Salle University. However, married individuals with three or four qualified dependent children will experience the most benefit from the said new law.

## **List of References**

- 2008. Ballada, Win Lu. Income Taxation (2008 Edition). Domdane Publishers, Manila Philippines
- .2007. Reyes, Virgilio. Income Taxation: Principles, Law and Problems (2007 Edition). Manila, Philippines.
- 1997. National Internal Revenue Code Uploaded from: http://www.chanrobles.com/legal6nircmain.htm. Date Retrieved: February 5, 2009
- 2008. Revenue Regulation 16-2008 Uploaded from: http://www.bir.gov.ph/iss\_rul/reg2008.htm. Date Retrieved: January 28, 2009

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## **CPE/ECE Laboratory Inventory and Information System**

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#### **Abstract**

The study aims to improve the existing inventory system in the Electrical Engineering (EE), Electronics and Communications Engineering (ECE), and Computer Engineering (CpE) laboratory. The said study is divided into two parts where the first involves the gathering of data that will be included in the software should majority of the students agree to implement a computerized inventory system. This part also determines whether there is a need to have an information system that includes all the manuals and datasheets needed for the students experiment. The second part focuses on the development of the software that will fit the needs and demands of the students. This will be done using a Microsoft Visual Basic program and will include all the necessary information and data the students want. This software follows the stages of Software Development Life Cycle (SDLC).

#### 1. Introduction

In any academic institutions, hands-on experiments are very essential to develop the technical knowledge of the theories of the different subjects that the students learned especially in the field of engineering. All the materials and equipment that are needed for these experiments are stored in the laboratory room. Not only does it need to be neat and organized, but it must also contain all the necessary equipment and materials needed for these experiments. These equipment and materials must be listed in the laboratory's inventory system.

Having an organized and systematic inventory system in the engineering laboratory in La Salle University will be useful in several ways. First, students can easily identify or determine the availability of

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all needed materials for their experiments which also will encourage them to make some request of the materials that are not on the list. Second, since there is only one custodian for the Chemistry, Physics, and Engineering laboratories, this system will ease up the custodian's job in looking for all the materials needed by the students. Furthermore, it will result in a speedy procurement of the said materials. Lastly, this system will store all the equipment and materials that a certain student has borrowed or returned; thus, making the students liable to any damage on or losses of the materials and equipment borrowed.

#### Statement of the Problem

This proposed inventory system has the capacity of displaying all the important information and status of the apparatus, materials and electronic parts that can be found in the EE, ECE and CpE laboratory. The system also addresses the needs of the students and custodian for ease and comfort in handling the different equipment, components and apparatus found in the laboratory. Furthermore, the system will also monitor which equipment goes in and out of the room. Thus, the researchers seek to answer the following questions

- 1. What are the common problems faced by both the custodian and students in the laboratory?
- 2. Is there really a need to have a computerized inventory system for the ECE/EE/CPE laboratory?
- 3. How can a computerize inventory system be implemented?
- 4. How can the system help the students make a speedy procurement of the apparatus and materials they need?

# Objectives

The objectives of this study are the following:

- 1. To implement an inventory system that fits the needs of the students and custodian
- 2. To minimize the loss of laboratory equipment and materials
- 3. To find out the impact of having a computerized inventory system.

# Scope of Study

The study will be divided into two major stages. The first aims to determine the advantages and disadvantages of the present system in the ECE/EE/CPE laboratory. In this stage, the custodian and the students are expected to give their opinions and suggestions towards the improvement of the existing inventory. It is in this part where the problems in the present laboratory are determined thus enabling the researchers to solicit brilliant ideas from the students on how to improve such system. The second part of the study focuses on the design on improving the existing inventory system for the ECE/EE/CPE laboratory. This system will be designed in accordance to the needs of the students and custodian as determined in the first part of the study. The system is only applicable for the computer engineering, electrical and electronics, and communications engineering laboratory.

### Review of Related Literature

The system will be implemented using high level programming language. A computer is capable of executing different program written by the user. These programs come in different levels namely high-level and low-level language. Low level languages are those codes that are difficult to understand since these are the language within the computer

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system expressed in series of 0's and 1's. Low languages are also referred to as machine languages since most of the time only the machines and components within the computer can understand such codes.

High level programming languages on the other hand provides a much easier interface to user. This means that users can interact with these programs easily. An example of a high level programming language is the Microsoft Visual Basic 6.0. This language is an event-driven programming language which means that the whole operation of a system can be divided into different sequence of sub menus to be presented to the user. The sub menus will allow users to have a step-by-step understanding on the different features that the program generates. This programming language also allows programmers to create an interface to user thus allowing the user to have an idea on how to use the system. This programming language also allows programmer to create databases within the system making it very suitable for making the CpE/ECE Laboratory Inventory System.

In designing the software, the SDLC (Systems Development Life Cycle will be followed. Systems Development Life Cycle (SDLC), or Software Development Life Cycle, in systems engineering and software engineering refers to the process of creating or altering systems, and the models and methodologies that people use to develop these systems. The concept generally refers to computer or information systems. In software engineering the SDLC concept underpins many kinds of software development methodologies. These methodologies form the framework for planning and controlling the creation of an information system: the software development process. Systems Development Life Cycle (SDLC) is any logical process used by a systems analyst to develop an information system, including requirements, validation, training, and user ownership. An SDLC should result in a high quality system that meets or exceeds customer expectations, reaches completion within time and cost estimates, works effectively and efficiently in the current and planned Information

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Technology infrastructure, and is inexpensive to maintain and costeffective to enhance. Computer systems have become more complex and often (especially with the advent of Service-Oriented Architecture) link multiple traditional systems potentially supplied by different software vendors. To manage this level of complexity, a number of system development life cycle (SDLC) models have been created: "waterfall," "fountain," "spiral," "build and fix," "rapid prototyping," "incremental," and "synchronize and stabilize." Although the term SDLC can refer to various models, it typically denotes a waterfall methodology. Systems development life cycle is the oldest formalized methodology for building information systems, intended to develop information systems in a very deliberate, structured and methodical reiterating each stage of the life (http://en.wikipedia.org/wiki/Systems Development Life Cycle).

The traditional systems development life cycle originated in the 1960s to develop large scale functional business systems in an age of large scale business conglomerates. Information systems activities resolved around heavy data processing and number crunching routines. In the 1980s the Structured Systems Analysis and Design Method (SSADM) was based in SDLC. SSADM is a systems approach to the analysis and design of information systems, produced for the Office of Government Commerce, a UK government office concerned with the use of technology in government. Since the 1980s the traditional life cycle approaches to systems development has been increasingly replaced with alternative approaches and frameworks, which attempted to overcome some of the inherent deficiencies of the traditional SDLC (Glossary of Software Engineering, 2001).

## 2. Methodology

This chapter employs method of determining whether it is necessary to implement a computerized inventory system. The research methodology serves to explain and achieve the objectives.

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A questionnaire was given to the selected ECE, EE, and CPE students in La Salle University. This questionnaire aimed to solicit necessary information as to how the student should want to improve the existing inventory system in La Salle University.

The questionnaires were given to selected students using the laboratory during the 2<sup>nd</sup> semester of that school year. These data was basis of information to be included in the system should the students desire a computerized inventory system. If majority of the respondents suggested having a computerized system, the different stages of the SDLC (Software Development Life Cycle) was to followed.

Questionnaires were given to selected BS-EE, BS-ECE, and BS-CpE students in La Salle University. The questionnaire was divided into two parts, the first part dealt with the status of the existing system and likewise determined whether something was needed to improve the current system. The second part dealt with all the necessary information and data that the student felt important to be included in the redesigning the existing system.

#### 3. Results and Discussions

After the questionnaires had been answered by the respondents, the following data were obtained.

Table 1: Number of respondents that are using the ECE/CPE laboratory

	Ye	ear Lev	/el	
Course	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	TOTAL
B.S. Computer Engineering	4	8	2	14
B.S. Electronics and Communications	19	7	0	26
Engineering				

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Table 1, continued.				
B.S. Electrical Engineering	1	1	0	2
Total	24	16	2	42

Table 1 shows the breakdown among the forty two (42) engineering students who answered the questionnaire. Majority of the respondents came from departments of Computer Engineering and Electronics and Communications Engineering. More than half of the total respondents were from the ECE Department while the EE department only had 2 respondents only.

Table 1.1: Percentage of the respondents from the total population

Course	Po	Total pulati	on	Percentage of Respondents
	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	
B.S. Computer Engineering	6	13	13	43.75%
B.S. Electronics and Communications	17	10	9	72%
Engineering				
B.S. Electrical Engineering	6	5	7	11%
Total				

Table 1.1 shows the percentage of the respondents in relation to the total population of BS CpE, BS ECE, BS EE students from  $3^{rd}$  year to  $5^{th}$  year. Most of the students who are using the laboratory are  $3^{rd}$ ,  $4^{th}$ , and  $5^{th}$  year BS-ECE and BS CPE students. For the BS-EE students, only the  $3^{rd}$  year use the laboratory.

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Table 2: Response of the respondents to *Part I* of the questionnaire

1. How often in one week do you borrow		AN	SWERS	
	Once	Twice	3X	Mor
equipment, apparatus, and component in the laboratory?	15	16	8	3
2. The procurement for each equipment and	All	Most	Sometime	Not
apparatus is fast.	the	of the	S	at
	time	time		all
	4	15	22	0
4. The custodian is always available during	All	Most	Sometime	Not
each experiment.	the	of the	S	at
	time	time		all
	6	28	8	0
6. Do you fill up the borrowers slip before	All	Most	Sometime	Not
borrowing from the laboratory?	the	of the	S	at
	time	time		all
	7	4	12	19
5. Do you return the equipment, apparatus,	All	Most	Sometime	Not
and components after using it?	the	of the	S	at
	time	time		all
	34	5	1	2
6. Do you know what are the available	Yes		No	
equipment and components in the laboratory?	12		28	
equipment and components in the abouttory:	_			
6.1 Does the laboratory need to improve		'es	No	
	Y	Ves	<b>No</b> 2	
6.1 Does the laboratory need to improve the inventory system?  6.2 How do like such system to be	<b>Y</b>			rized
6.1 Does the laboratory need to improve the inventory system?	Y 4	10	2	rized
6.1 Does the laboratory need to improve the inventory system?  6.2 How do like such system to be	<i>Y</i> 4 <i>Mai</i>	10 nual	2 Computer 28	rized
6.1 Does the laboratory need to improve the inventory system?  6.2 How do like such system to be implemented?	Y  Availab	10 mual 0	2 Computer 28 nent	

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Table 2 shows the respondents' response to  $Part\ I$  of the questionnaire. The following data were obtained.

- 1. Fifteen of the respondents used the laboratory once a week while 16, 8, and 3 respondents used the laboratory twice, three times, and more than three times respectively.
- 2. Four students responded that the procurement of the laboratory equipment and apparatus was fast all the time. Fifteen respondents said that most of the time it was fast while twenty two other respondents say that sometimes it was fast.
- 3. The custodian was available at the laboratory all the time according to six students. Only eight of them said it was only sometimes that the custodian was available while twenty-eight other respondents said most of the time the custodian was available at the laboratory.
- 4. Seven of the respondents filled-up the borrowers slip all the time. Four did it most of the time. Twelve did it sometime while nineteen of them did not care at all in filling up the borrower's slip
- 5. Majority of the students returned the equipment and components they had borrowed. Only two of the respondents did not return any of them to the laboratory.
- 6. More than 75% of the respondents said they were not very familiar with all the available equipment, apparatus and components in the laboratory. 40 respondents out of 42 believed that there was indeed a need to improve the existing inventory system at the laboratory. Such improvement in the system could be implemented manually according to 10 of the respondents while 28 others say it should be computerized.

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Table 3: Availability of equipment, apparatus, and manuals in the laboratory

		Never	Some	Most	All
	1. Manuals for operating the equipment	9	14	8	10
2.	Datasheet for all digital components	18	12	5	6
3.	Experiment manuals for all exercises.	1	8	22	11

Table 3 shows the response to question **no. 1** in the questionnaire. It pertained to the availability of the different equipment, apparatus, and manuals in the laboratory. This table illustrates whether a student can find manuals on the items listed. The results suggested that there was enough manual for the operation of the different apparatus. But majority of the respondents claimed that datasheets for all the digital components were lacking. Experiment manuals for exercises, on the other hand, could be found most of the time, according to majority of the respondents.

Table 4: The need of inventory system

	Yes	No
Do you think having an information system for all the equipment, apparatus, and components in the laboratory are needed?	41	0

Table 4.1: Information associated with the inventory system

Information	No. of
	Respondents
1. Guidelines for equipment and apparatus operation	41
2. Datasheet for digital and electronic components	41
3. Experiment manuals	41
4. Status and availability of the apparatus and components	41

Table 4 and Table 4.1 show the response of the students to question no. 2 on *Part II* of the questionnaire. Unanimously, they said it

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is necessary to have an information system for all equipment, apparatus, and components in the laboratory. All of them except one have specified that information listed in the table should be included in the information system.

Table 5: Present availability of different information in the laboratory

	Yes	No
Does the laboratory contain all the necessary information/datasheets/manuals that you need	8	34
for each experiment?		

Table 5.1: Possible solution to inventory problems

Information	No.of Respondents
Automated/computerized information system	30
Request the teacher/custodian to provide manuals and datasheets	27

Table 5 and Table 5.1 show the answers to question no.3 on *Part II* of the questionnaire. Majority of the respondents say that all the necessary datasheet and manuals needed for each experiment can be found in the laboratory. To address such problem, 30 of them stated that information system should be computerized while 27 others said that it would best to request the custodian and the teacher to provide manuals and datasheets.

#### 4. Conclusion and Recommendation

## Conclusion

Based on the data gathered from the questionnaires given to the students and the interview done with laboratory custodian and faculty members who are using the laboratory, there is really a need to improve the existing system in the ECE/EE/CPE laboratory. This need can be

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addressed by implementing a computerized inventory system for the laboratory. The students also suggested that sufficient manuals and datasheets in the laboratory should be provided. This system should include the list of all equipment, apparatus, and components that exist in the laboratory. Furthermore, manuals for the operation of the apparatus should also be included. This system shall also address the problems encountered by the students in procurement of equipment and components as well as monitor the releasing and returning of these.

#### Recommendation

From the results of the questionnaire, the researchers recommend that the existing inventory system must be improved by incorporating a computerized inventory and information system. This system should have all the information needed by the students as obtained from the data in the first phase of this study. All the data and information that are needed by the students as obtained in the data from the questionnaire must also be included.

## List of References

Systems Development Life Cycle. Uple http://en.wikipedia.org/wiki/Syc. Date Retrieved:	oaded from stems_Development_Life_Cycle —
2001. Glossary of Software Engineerin http://www.elucidata.com/refs/s	g. Uploaded from: seglossay.pdf. Date Retrieved:
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## **Extended Overtime and Its Impact on Labor Productivity**

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#### Abstract

Extended overtime is inevitable in almost all construction industries in the country and abroad. This study focuses only the construction industries in Ozamiz City. The objectives of this study are to determine the factors that may influence the workers to render extended overtime and to determine the overall impact of extended overtime on labor productivity. Results shows that lack of materials and delay of delivery are the leading factors of the extended overtime of construction workers. Rendered overtime results in two positive factors such as motivation to earn money and motivation due to labor competition.

#### 1. Introduction

Project construction has always been a unique one time operation designed to accomplish a specific set of objectives. The main objectives of any public or private sectors dealing with project implementations are to upgrade project performances, complete the project within their allocated budget and time constraints, and even reduce the cost but still maintain or improve the quality. These three criteria to achieve these cost, quality, and time have always been the priority of any project undertakers, a well planned project management skill which include adequate communication and coordination, control mechanisms, effective decision making, troubleshooting, giving of feedbacks and constant monitoring must be implemented.

N	Man	y times	s we l	near th	at a typical	project ove	rruns	especially	in in
relation	to	time	and	cost	estimates.	Overruns	are	common	in
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government and commercial projects, even when changes in the design are taken into account (Yap Yan Mei, 2006).

Besides cost, quality is important. Delivering a completed project within cost and time may not be sufficient if quality is not taken into consideration. Completion time is extremely important in construction. Time delay is the most widely known cause of construction disputes. Failure to complete the work in a specified time frame, it could be the most troublesome construction disputes.

However, in today's construction industry, overtime has frequently become the planned schedule from the onset of a project. This occurs for at least two reasons. First, with a shortage of skilled labor in many parts of the country, the premium pay associated with overtime has become a necessity to attract the required workforce. Second, savvy owners commonly request an accelerated project schedule in order to move their product to market sooner. These owners recognize the financial benefit of an early project completion despite the increased cost associated with schedule acceleration (Yap Yan Mei, 2006).

Extended overtime is frequently used to meet tight project targets from owners and to make up for late changes and project delays. Extended overtime is defined as using more than 40 hours per week for more than two consecutive weeks (Overtime Subcommittee 2004). As overtime is used more extensively in long durations, it is important for contractors and owners to understand the associated impact on labor productivity.

## Review of Related Literature

Countries outside Philippines conducted a study about overtime and labor productivity in various companies around the world. This study was not only limited to construction industry. They wanted to know how overtime affected the worker and its productivity.

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The study of "Scheduled Overtime Effect on Construction Projects" (www.curt.org/pdf/156.pdf, Nov., 1980) by A Construction Industry Cost Effective Task Force Report reveals that when a project in an area is placed on a scheduled overtime basis, the movement of workers from other projects in an area to overtime jobs creates an "auction" atmosphere. Other jobs go to overtime to hold their labor and bidding process is established. The local labor supply is fairly constant and the additional productive capacity of transient workers is offset by the reduced productivity of all workers on an overtime schedule. Usually, a major portion of the increase in number of workers in affected area is a result of permit workers in crafts who are less proficient or poorly qualified.

Disruptions created by poorly qualified craft workers, longer working hours each week, increased absenteeism, and reduced effectiveness due to fatigue reduce the productive output of worker materially. On extended overtime, the reduced productivity of workers for a week's work is equal to or greater than the number of overtime hours rendered.

Within narrow limits, workmen expend energy at an accepted pace established by a long periods of adaptation. When the hours per day or per week are changed, there is an adjustment period. Studies reveal that scheduled overtime operations result in a sharp drop in productivity; initially, followed by a fairly substantial recovery by the end of the first week. The recovery level of productivity may then hold fairly for the first period of two to three weeks but show a steady decline for the following two to three weeks. After five to six weeks of operations, there is a further drop in productivity which levels out at a low point after nine to twelve weeks of sustained overtime operation. It should be understood that this condition results from normal reactions and does not reflect the other effect of other adverse factors such as labor, climate, and poor management.

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The study of George Hague (1998) entitled "Effect of Extended Work Time on Productivity" shows that the need to extend hours beyond the normal workweek can be required due to several factors including weather, improper management, other trades or even one's own company's performance. He asserts to review the job's specifications that relate to overtime. Some projects may prohibit or even assess penalties if such overtime work is performed. Restricted access to the job site can impact overtime work and create added costs. Moreso, changes to one work schedule may impact other projects. By reviewing the published job duration, available labor resources and job cost records of typical jobs, the estimator can project when overtime may be needed.

Overtime pay is only one aspect of working extended hours. The estimator takes into consideration the effects of extended work hours to include fatigue factor. By simply adding the increased labor rate to those hours above the normal workweek does not cover the loss of labor hours brought on by fatigue. The estimate is based on the reduced productivity from loss hours in addition to the premium rate to cover overtime. On rare occasions overtime may increase work performance, as there will likely be less interference when other trades have left the job site. Studies, however, by both trade associations and the government clearly document that overtime typically reduces productivity notwith standing that accidents, absenteeism, and mistakes also increase. The problem of fatigue is directly proportional to the amount of overtime rendered. These studies have found that no matter what the employee's incentive is fatigue reduces productivity.

Studies have also shown that fatigue due to overtime work affects work done on regular time. Requiring an individual to work seven days a week on a regular basis is foolish. The overall effect on performance is counterproductive. Most contractors attempt to avoid the excessive costs of overtime. Where permitted and when overtime is needed, an estimator considers either a shift differential or placing more employees on a project, keeping in mind that the larger the crew size

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the lower the production. An estimator's job is to recognize that productivity is lower on overtime, and so must, adjust estimate accordingly by factoring labor units to compensate for reduced performance.

Overtime and Productivity in Electrical Construction, that it is well established fact that the labor productivity can be negatively impacted by overtime, causing problems such as increased fatigued, reduced safety, increased absenteeism and low morale www.aacei.org/technical/rps/25r-03.pdf).

## Statement of the Problems

Various measures and actions have been taken to ensure prompt delivery of construction output. Overtime achieves schedule acceleration by increasing the amount of work hours by labor beyond the typical 40 hours per week (A. S. Hanna et. al, 2005). Understanding the effects of overtime is quite difficult because the factors affecting productivity in overtime situation are numerous. Thus, the researchers seek to answer the following questions:

- 1. What factors influence construction workers to render extended overtime?
- 2. What is the overall impact of extended overtime on labor productivity?

# Objectives of the Study

Many times, overtime has been frequently used in many part of the construction phases as an inducement to attract labor and to accelerate schedule performance. While there may be positive shortterm benefits to working overtime schedule, the long term consequences are typically viewed as detrimental. The views and information acquired from construction workers will help the

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researchers analyze the impact of extended overtime and may somehow benefits the construction industry. The aim is supported by the following objectives.

- 1. To determine the factors that influence construction workers to render extended overtime
- 2. To determine the overall impact of extended overtime to labor productivity.

# Scope of the Study

The study focuses on obtaining views mainly from the construction workers. The study identifies the factors where overtime are required in the construction phases and to study and analyze the consequential impact and overall impact of extended overtime in the construction industry. This study is limited only to leading construction industries in Misamis Occidental.

# 2. Methodology

This section employs method of data collection in an orderly manner in the aspects of how the data were collected, where the data is to be sourced and how the design till fielding of the questionnaire is implemented. The research methodology serves to explain and achieve the objectives.

## Methods of Data Collection

Data collection is considered as the important stage in gathering all required form and the fundamentals in achieving the main objectives of the study. Basically, the main or primary data were collected from

1. Questionnaires survey – the data were collected through 28 ------November-December 2009 Vol. 14 No. 5

questionnaire survey distributed to the workers of different trades of work involved in the construction project.

2. Interview – may be from on-the-spot interview with the workers

Secondary data were collected from literatures review on books, journal, articles and seminar conference, website which emphasize on the construction and labor productivity. The secondary data reviewed prepared the platform for the labor productivity.

# Primary Data Collection

The primary data in this study were gathered through questionnaires distributed to the workers in the construction project. The purpose of questionnaires was to examine the aspects identified in the literature and meant to fulfill the objectives.

During the questionnaire's preparation stage, questionnaires were designed to obtain a wider range of views, a more objective responses rather than unnecessary views that contained no concrete substance or justification. Moreover, it was designed in such a way that the respondents only need to encircle or put a check  $(\sqrt{})$  on the space that corresponded to their answer.

The questionnaires structure framed based on three types of answering techniques, namely rating-based, selective based and openended format. Rating- based format, respondents were instructed to rate their opinion for a specific fact by making a 5-point scale ranging from Totally Disagree to Strongly Agree or from Very often to Never. Secondly, selective-based questions only required respondents to encircle the number that corresponded to their answer.

The structured questionnaire is made up of 3 sections,

1) Section 1: The background of the respondents such as nature of work, number of years of experience in construction, address,

and length of years in construction.

- 2) Section 2: The second part comprised the workers experiences of working overtime and extended overtime and to find out their opinion about the impact of extended overtime in the workers productivity.
- 3) Section 3: The third part contained the question to investigate the need of extended overtime in project, the consequential impact of extended overtime and ascertain consequential influence on the labor productivity.

The respondents were those in different trades of work such as CHB laying, plastering work and concreting, installing reinforcing bars, carpentry work and supervising in a construction site in Ozamiz City.

# Secondary Data Collection

Secondary data were from literature review presented in Chapter 2. These data were important to generate and design the questions for the questionnaires of primary data collection. All secondary data were obtained from journal paper, seminar paper of conference, books related to the studies of construction and productivity.

# Analysis Method

The data were pre-processed using the Microsoft Excel for Microsoft Professional Windows XP for the data analysis. The analysis of the data was from the receivable feedback from the questionnaire. There was quantitative simulation using Microsoft Excel for instance in getting the average index calculation and generation of charts and graphs.

## Average Index Formula:

Average Index = 
$$S\beta x n$$
 (1)

Where,

ß is weighting given to each factor by respondents; n is the frequency of the respondents N is the total number pf respondents.

With the rating scale as below: (Majid & McCaffer, 1997)

- 1 = Never/totally disagree/ very low(1.00 = Average Index < 1.50)
- 2 = Rarely /disagree / low(1.50 = Average Index < 2.50)
- 3 = Sometimes/neutral/fairl (2.50 = Average Index < 3.50)
- 4 = Often/agree/high (3.50 = Average Index < 4.50)
- 5 = Very often/strongly agree/ very high (4.50 = Average Index < 5.00)

### 3. Results and Discussions

Factors that may influence construction workers to render extended overtime.

Table1: Frequency Distribution of Respondents on Materials

I. Materials					
J	Lack of Materials / Delay in Delivery				
Description	Frequency	Percentage			
High	22	35.48%			
Fair	17	27.42%			
Very Low	12	19.35%			
Low	9	14.52%			
Very High	2	3.23%			
Total	62	100%			

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The Table shows that 35.48% of the respondents rated the materials *High*. This means that more often than not, the lack of materials and delay in delivery caused the construction workers to render their overtime.

Table2: Frequency Distribution of Respondents on Tools and Equipments

II. Tools and Equipments						
L	Lack of Tools / Equipment Breakdown/					
La	ack of Equipment/Disruption of	Power				
Description	Frequency	Percentage				
Low	23	36.51%				
Fair	20	31.75%				
Very Low	13	20.63%				
High	6	9.52%				
Very High	1	1.59%				
Total	63	100%				

The Table shows that 36.51% of the respondents rated the tools and equipments as *low*. This means that, rarely the construction workers rendered extended overtime due to lack of tools and equipment, equipment breakdown and disruption of power and water supply.

Table 3: Frequency Distribution of Respondents on Manpower

III. Manpower				
Lack of Skilled Workers/ Absenteeism/ Crew Interfacing,				
	Foreman Incompetence.			
Description	Frequency	Percentage		
Low	21	32.81%		
Fair	18	28.13%		
Very Low	13	20.31%		
High	11	17.19%		
Very High	1	1.56%		
Total	64	100%		

The Table shows that 32.81% of the respondents rated the

manpower *low*. This means that the lack of skilled workers, absenteeism, crew interfacing and foremen incompetence were rare case for the workers to render extended overtime.

Table 4: Frequency Distribution of Respondents on Methods

IV. Methods	-				
Rework, Overcrowded work areas, Stop work due to Owners, Contractors, Inspection					
dela	delays, Stop work due to rejection of work.				
Description	Frequency	Percentage			
Low	21	33.33%			
Fair	19	30.16%			
High	11	17.46%			
Very Low	11	17.46%			
Very High	1	1.59%			
Total	63	100%			

The Table shows that 33.33% of the respondents rated the Methods *low*. This means that the methods were just a rare cause for the workers to render overtime.

Table 5: Frequency Distribution of Respondents on Money

V. Money					
Work Stop	Work Stoppage due to nonpayment by owner/contractor				
W	ork Stoppage due to resource pr	oblem			
Description	Frequency	Percentage			
Very Low	23	37.10%			
Low	22	35.48%			
High	8	12.90%			
Fair	5	8.06%			
Very High	4	6.45%			
Total	62	100%			

The Table shows that 33.33% of the respondents rated the Money *Very Low*. This means that the work stoppage due to non payment by owner or contractor was very rare or never causes for the construction workers to render overtime.

Among the factors that influenced construction workers to render extended overtime, only the Materials (Lack of Materials / Delay in Delivery) had the rating of "high". This indicates that this is often the reason for the construction workers to render overtime.

## Overall impact of extended overtime to labor productivity

Table 6: Result of the Impact of Extended Overtime

Impact of Extended Overtime	Average	Classification	Rank
	Index		
Motivated	3.97	Agree	1
(Earn more money)			
Motivated due to greater competition of	3.56	Agree	2
labor		_	
Tired	3.25	Neutral	3
Lazy to wake up the next morning	2.83	Neutral	4
Fed-up with the work	2.77	Neutral	5
Sick	2.56	Neutral	6
Inattentive / Less Focus	2.54	Neutral	7
Accidents at site	2.44	Disagree	8
Boredom	2.30	Disagree	9
Demoralization	2.27	Disagree	10

The Table above shows the list of consequences of the impact of extended overtime on the construction worker. Some of the items listed above achieve an average index of above 3.50 but less than 4.50 where these ratings fall under the category of *Agree*. There were only two items under the category of agree as rated by the workers. The first one was the motivation to earn money which has an average index of 3.97 and the second was the motivation due to greater competition of labor pool which had an average index of 3.56.

There were four items under neutral category as rated by the workers. These were tired (3.25), lazy to wake up the next morning (2.83), fed – up with work (2.77), sick (2.56) and inattentive or less focus (2.54).

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There were three items by which the workers disagreed. These were accidents at site (2.44), boredom (2.30) and demoralization (2.27).

Therefore, majority of the respondents agreed that top two positive consequential impact of the extended overtime these were the motivation to earn more money and motivation due to competition of labor

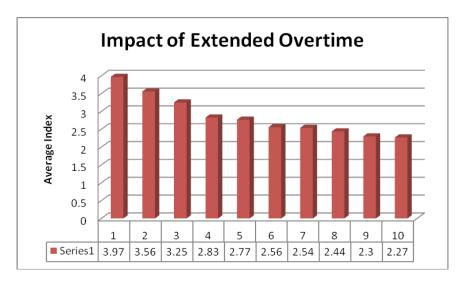


Figure 4.2.1. Impact of Extended Overtime

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Table 7: Result of the Overall Impact of Extended Overtime

Overall Impact of Extended Overtime	Average	Classification	Rank
	Index		
Premium Wages	3.89	Agree	1
Increase labor productivity	3.75	Agree	2
Increase Absenteeism	2.84	Neutral	3
Labor Unrest	2.81	Neutral	4
Quality of work decrease	2.77	Neutral	5
Higher incident of faulty workmanship	2.71	Neutral	6
Increase Accidents	2.52	Neutral	7

The Table above shows the overall impact of extended overtime. Two items by which it falls under the category of agree from the workers rating were the premium wages and increase labor productivity with average indexes of 3.89 and 3.75 respectively.

The rest of the items were under the neutral category: increase absenteeism (2.84), labor unrest (2.81), quality of work decrease (2.77), higher incident of faulty workmanship (2.71) and increase accidents (2.52). Therefore, the overall impact as revealed by the workers rating were premium wages and increase labor productivity.

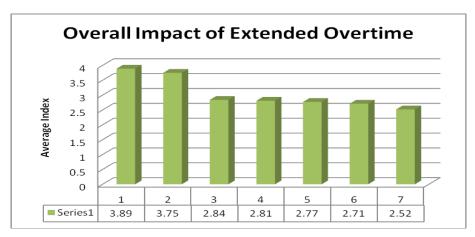


Figure 4.2.2. Overall Impact of Extended Overtime

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## 4. Conclusion and Recommendation

## Conclusion

The respondents agreed that the lack of materials and delay of delivery are the leading factor of the extended overtime of construction workers. These factors affect the construction significantly, thus, leading the workers to render overtime and even beyond to cope with the schedule of work and to finish the construction.

The impact on workers who render overtime resulted in two positive factors; motivation to earn money and motivation due to competition of labor.

From the analyzed data, the overall impact of extended overtime are premium wages and increase labor productivity.

The impact on construction workers are all positive; workers are motivated to earn money and disregard the effect of being tired and fatigue. Another impact to consider is the increase of labor productivity. Since workers are motivated to earn money and motivated due to competition of labor then, it also increases its labor productivity.

Compared to the related studies, this present findings show ironic results such as in of tiredness of workers and the labor productivity. It even reduces safety, increases absenteeism and lowers the morale as the main impacts of extended overtime.

The researchers conclude that the results may really vary from one location to another or from one country to another.

#### Recommendations

It is then being recommended that:

- 1. Similar research be conducted in other provinces and big cities in the Philippines especially those places where construction is intensive.
- 2. Another study be conducted where sample survey is widened.

### List of References

- 2005. Awad S. Hanna, Craig S. Taylor and Kenneth T. Sullivan, 'Impact of Extended overtime to Construction Labour Productivity' Journal of Construction Engineering and Management, Vol 131, No. 6, June 1, 2005.
- 1980. 'Schedule Overtime Effect on Construction Projects. 'Business Roundtable Construction Committee. CICE Report C-2.
- 1982 Absenteeism and turnover. Business Round Table Rep C-6, New York.
- Effects of Scheduled Overtime on Construction Productivity: A Quantitative Analysis. Construction Industry Institute, SD98.
- 1998. George Hague. Effects on Extended Overtime on Productivity. Uploaded from: `http://www.conest.com/tips/EffectsOfExtendedWorkTime.pdf
- 1973. Ian G. Smith. The Measurement of Productivity: A systems Approach in the context of productivity agreements. Great Britain.
- 38 -----November-December 2009 Vol. 14 No. 5

- 1980. Scheduled Overtime Effect on Construction Projects. A
  Construction Industry Cost Effective Task Force Report.
  Uploaded from: www.curt.org/pdf/156.pdf)
- 2004. Overtime and Productivity in Electrical Construction.

  Uploaded from: www.aacei.org/technical/rps/25r-03.pdf
- 2006. Yap Yan Mei, Extended Overtime and the Effect to Labour Productivity in Construction: Workers Perspective. University Technology Malaysia.

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# The Automated Thesis and Special Project Books Record Keeping and Circulation System College of Computer Studies

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#### Abstract

This study aimed to design and develop an automated record keeping and circulation system for various thesis and special projects books in the College of Computer Studies (CCS), La Salle University, Ozamiz City in order to improve the office productivity and managerial processes in the College.

The primary respondents of the study were the CCS secretary and her student assistants who identified the record keeping process, circulation processes, and the organizing procedures of the CCS thesis and special projects. Also, other data of this investigation were also obtained from the forty two (42) BSCS - 4 students and seventy five (75) BSCS - 3 students and nine (9) CCS faculty who served as thesis advisors. The respondents were also asked about the automated system feature that they like to be implemented.

The result of the investigation of the existing practices of the College is that it still uses the traditional and manual type of filing the Thesis and Special Project Books. Books were arranged in no definite order. They are on shelves filed in no particular arrangement neither by author, by date it is done nor by title sorts. The books were not also properly labeled accordingly due to none standard filing procedures employed. Furthermore, the respondents admitted that the College has no proper logs and inventory procedure so that it is hard to trace and locate thesis and special project books. The College also encountered problems such as torn, lost or misplaced books On the other hand, borrowing procedures of the Thesis and Special Project books in the College of Computer Studies are done but with no guidelines and regulations. Since there is no standard procedure, students are able to borrow books without liability.

As a whole, there is no standard filing procedures and process employed in the College of Computer Studies as drawn by the respondents. This situation is a burden to students and the College. It is in this light that the researchers pursued this study. It is hoped that the implementation of this study will help improve the College of Computer Studies

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## 1. Introduction

Technology advancement gives an institution a step ahead over its competitors. It has invaded every aspect and area of an organization making it part of its day-to-day information handling and circulation.

As time changes, systems being used also change. New innovations burst forth making a means for better communications and decision making. Computer technology reached and even surpassed the point of expectation of the users. Organizations can benefit from it in various ways including an increase in operating efficiency, more convenience and possible saving of time and effort. It also provides a means of producing an effective implementation of the policies and standards of the organization and a more efficient working facility for office productivity.

With this trend and realistic insight, the College of Computer Studies (CCS), La Salle University, Ozamiz City will respond to its pressing need to adopt an automated record keeping and circulation system for its various thesis and special projects. Furthermore, the main research thrust of the College is to design and develop office productivity tools that can uplift and enhance the instructional and managerial processes.

# Research Objectives

The study aims to improve the CCS Record Keeping and Circulation System by designing and developing an information system entitled Automated CCS Thesis and Special Project Books Record Keeping and Circulation System.

Specifically, it seeks to answer the following questions:

1.	What is the type of filing system employed in the Colle Computer Studies?	ege of
		41

- 2. What are the procedures used in the present circulation system?
- 3. Based on the findings, how may a College of Computer Studies Thesis and Special Projects Record Keeping and Circulation System be designed and developed?

## Scope and Limitation

The study focuses on the automation of the record keeping and circulation system of the College of Computer Studies Thesis and Special Project Books. It involves the design and development of such a system to meet the expressed needs of the individual concerns namely, the CCS secretary and student assistants, CCS students and some other prospected users based on interviews and other data investigation procedure.

In addition, it covers the filing procedures and entire circulation procedures, such as the borrowing and returning processes.

Other matters not mentioned is not part of the study.

## Significance of the Research

The study is foreseen to be beneficial to several entities within the jurisdiction of La Salle University, Ozamiz City, particularly:

**LSU Colleges**. The system will be used to replace and improve the current practice of using manual and traditional procedure of filing and circulation of Thesis and/or Special Projects books. In a way, this study would also minimize plagiarism since the users will only be given limited overview of the Thesis and/or Special Projects.

**CCS** Secretary and Student Assistants. The study will optimize their work efficiency, thereby making them attend to other job functions in the office.

CCS Students. Given the kind of satisfaction that the study will offer, the students will find convenience in searching for usable review of literature and will be helped to produce qualitative research in their own field of technology specialization.

**Future Researchers.** The study can be a benchmark to develop a new system that will enhance the capability covered by the present researcher's proposed system.

The study will also be a good resource material for implementation not only to some offices but even to the institution's library and other agencies that need to have their circulation system automated.

# 2. Methodology

The research flow diagram shown in Figure 1 presents the necessary processes which the researchers undertook in order to analyze, design and develop an Automated College of Computer Studies Thesis and Special Project Books Record Keeping and Circulation System, La Salle University, Ozamiz City.

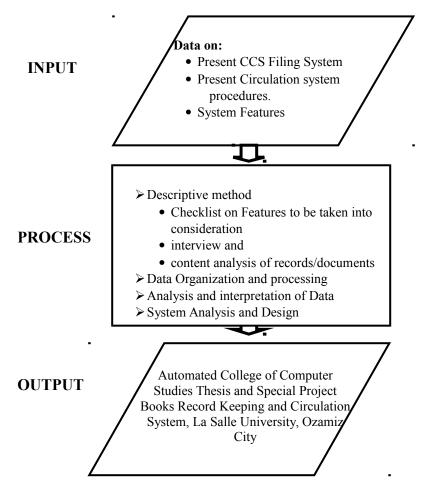


Figure 1. Research Flow Diagram

#### Research Environment

The College of Computer Studies initiates and innovates to offer sound programs of study integrating courses from several of the specialized computer and information technology fields to respond to the needs of the society. It also requires individual graduates to incorporate relevant theories, techniques, languages and systems in developing computer related solutions to practical problems and apply appropriate knowledge, concepts and principles to facilitate the management of change in computer technology. To actualize its research thrust, the College wants to help the entire university in its technology advancements through development of office productivity tools and research-oriented and application-based projects.

## Research Respondents

The primary respondents of the study were the CCS secretary and her student assistants who identified the record keeping process, circulation processes, and the organizing procedures of the CCS thesis and special projects. Also, other data of this investigation were also obtained from the forty two (42) BSCS – 4 students and seventy five (75) BSCS – 3 students. There were nine (9) CCS Faculty who served as thesis advisors. The Table below presents the list of the number of respondents of the study.

Table 1: Respondents of the Study

Respondents	Number
CCS Secretary	1
Student Assistant	1
CCS Faculty	9
BSCS -3 students	75
BSCS -4 students	42
Total	128

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#### Research Instruments

The study used a structured interview for interviewing CCS Secretary, student assistants, CCS Faculty and a sample size of the CCS Students. The interview sought to draw the problems encountered and processes involved in the record keeping and circulation. The interview guide is shown in Appendix A.

A self constructed checklist was also used to collect data from the high number of CCS students and faculty to identify the suggested features in designing of the system. See Appendix B for the checklist.

Directions were provided by the researchers to help guide the respondents on how to go about each of the items. For the student respondents, aside from the directions provided in the questionnaire, further directions were given orally to ensure clarity of instruction. Student respondents' questions on the terminologies used and meaning of each statement were also entertained and answered directly by the researchers to gain coherent, reliable and verifiable of answers.

In designing the system, the researchers used checklists of possible features for the respondents to identify and to be the basis of the development of the system. The respondents identified and took into account the significance of the said features.

Furthermore, the researchers underwent content analysis of documents like the record of the frequency of borrowed and returned thesis and special project books, the record of inventories and other documents that helped in the realization of the study.

## Research Procedures

# Gathering of Data

To enable the researchers to officially gather the data and information needed to the respondents, a letter of announcement was sent to individual faculty asking for cooperation and the schedule of interview were set at their convenient time.

After getting their support, the researchers personally administered the research instruments to ensure accurate collection of data as well as immediate retrieval of the research instruments. The responses gathered were tallied into tabular presentation and analysis and textual interpretation followed. All data were presented and expressed in frequencies and percentage.

#### Treatment of Data

The results from the checklist were scored by arranging systematically the frequency of the responses and getting of the percentage then followed.

After the data were gathered, processed, analyzed and interpreted, the researchers directly proceeded to the designing and developing of a computerized program to automate the College of Computer Studies Thesis and Special Project Books Record Keeping and Circulation System. The steps of System Developments Life Cycle (SDLC) were followed systematically. This included analysis of the system needs, making of the detailed system designed and translating the design into program.

## 3. Results and Discussion

The College of Computer Studies, La Salle University uses the traditional and manual type of Filing the Thesis and Special Project Books. Books are arranged in no definite order. They are on shelves filed in no particular arrangement neither by author, by date it is done nor by title sorts. The books are not also properly labeled accordingly due to none standard filing procedures employed.

According to the CCS secretary, Thesis and Special Project books are automatically put onto the shelves once submitted by the students. Since there is no proper logging and inventory procedure it is hard to trace a thesis/book considering the volume on the shelves. The same problem is cited by the student assistants.

In addition, the books are prone to be lost or misplaced and can be copied word for word, page by page. Due to such problems, other problems also arise like the books cannot be easily accessed since it may have been lost or misplaced; it cannot be easily identified since there is no proper labeling and order of arrangement.

Books have labels but the labels are not easily identified. Some labels are not properly printed; others are outdated or do not correspond to the content of the book. As a whole, there is no standard filing procedures and process employed in the College of Computer Studies Thesis and Special Project Record Keeping as drawn by the CCS secretary and her student assistants.

Circulation covers borrowing and returning of books. The kind of record keeping used or filing system applied affects the circulation process. Borrowing procedures in the College of Computer Studies Thesis and Special Projects Books are done but with no guidelines and regulations. Any student can borrow Thesis and Special Project books directly by simply asking permission from the secretary. There is no borrower slip used and there is not even an effort to trace the books

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being borrowed. Borrowers log is not practiced either. A student wanting to borrow books manually searches one by one such book on the shelves. Once out of the shelves, the books are not be returned in its proper place. The secretary and/or student assistant cannot determine the last user or borrower of the book.

Based on the interview with the secretary, copying the content of Thesis and Special Project books is really evident. Some pages of the books are torn and even some of the books must have been brought out from the CCS office, never returned or possibly lost. As cited, security measures are needed and proper record keeping is suggested.

Since there is no standard procedure to observe in the borrowing of books, the returning of Thesis and Special Project books once borrowed is not clear. Students who borrow books sometimes do not return the book or keep them for a long period of time. Inventory logs of student-borrower cannot be traced since there are no borrowing and returning logs.

On the part of the students, the whole circulation process is convenient but not clear to them. They can get as many Thesis and Special Project books they want from the shelves. Since there are no standard procedures, other students do not have access to books that have been kept for a long period of time by earlier borrowers who might be passing around the books to their liking.

Students spend a long time searching the Thesis and Special Project for books to borrow. Sometimes, they cannot locate the books or know whether it still exists or lost. Its availability is also undetermined. Furthermore, even if the book is available there might be missing page(s) of it.

The following data obtained from 9 CCS faculty and 126 borrowers became the basis for the design and development of

automated College of Computer Studies Thesis and Special Projects Record Keeping and Circulation.

Table 2: According to CCS Faculty

Features	Frequency	Percentage	
Arrangement/Organization/Filing and its Procedures			
Thesis books and/or special projects books to be used can easily be identified.	9	100.00%	
2. The filings of thesis books and/or special projects books are convenient.	9	100.00%	
3. The arrangement of thesis books and/or special projects is in chronologically order according (please check one only)			
a. to date it is made. (if choosen)	6	66.67%	
a.1 date then 1st authors lastname	0	0.00%	
a.2 date then Titles Alphabetical Order	6	100.00%	
b. to 1st authors lastnames. (if choosen)	0	0.00%	
b.1 1st authors then date	0	0.00%	
b.2 1st authors then Titles Alphabetical Order	0	0.00%	
c. to Titles Alphabetical order (if choosen)	3	33.33%	
c.1 Titles Alphabetical order then date	3	100.00%	
c.2 Titles Alphabetical Order then 1st authors lastnames	0	0.00%	
4. Thesis and Special Project Books should have its own Number	9	100.00%	
Circulation			
1. The thesis books and/or special project books to be borrowed/returned should be logged and generate report of logs	8	88.89%	
2. Students who opened electronic Thesis and Special Project Books should be logged and generate report of logs	9	100.00%	
Table 2, continued.			

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3. Electronic Thesis and Special Project Books should be access code protected	9	100.00%
4. File Abstract can be printed.	9	100.00%
5. Electronic Thesis and Special Project Books should not be edited	9	100.00%
6. Electronic Thesis and Special Project Books should not be copied electronically - for viewing only	7	77.78%
7. Electronic Thesis and Special Project Books is downloadable and can be saved to storage media	5	55.56%
8. There is a report confirming that the thesis books and/or special project books are borrowed or return.	7	77.78%
System Features		
1. All menus and sub menus are easy to click.	8	88.89%
2. The interface design should be user friendly.	9	100.00%
3. Back-next feature is provided.	8	88.89%
4. Data entry operations can accept either uppercase or lower cases	9	100.00%
5. A message alert should be employed for erroneous entry.	9	100.00%
6. The system should be secured with an access code.	9	100.00%

The Table above shows the needed features of the automated design as perceived by the CCS faculty. Almost all of them agreed to have these items to be part of the system features. Moreover, the above data shows that all features present as items are very useful to be included in the design since based on percentage rating, all items have fifty percent (50%) and up percentile.

Furthermore, the CCS faculty as well as the secretary wants to have the arrangement of thesis books and/or special projects in chronological ordering by date, and then sorted alphabetically by

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Thesis and Special Project books title. All books also must be identified by its number for easy access in less time and effort.

Based on the data presented in Table 2, it can be noted that generation of appropriate reports related to circulation is a major component in designing the system. The new automated system to develop should be capable of printing log reports. All users who wish to make use of the file stored should be filtered, trapped with identifications and must be protected with security measures like the used of access code in both accession of the system and files to open.

Basic system features like user-friendliness of the interface, menus and submenus should be easily clicked, message alert should show every erroneous entry, case sensitivity of entries and back-next feature are highly noted as part of the design process.

Table 3 shows the desired features CCS students want included.

Table 3: According to CCS Students

Features	Frequency	Percentage
Arrangement/Organization/Filing and its Procedures		
Thesis books and/or special projects books to be used can easily be identified.	126	100.00%
The filings of thesis books and/or special projects books are convenient.	126	100.00%
3. The arrangement of thesis books and/or special projects is in chronologically order according (please check one only)		
a. to date it is made. (if choosen)	59	46.83%
a.1 date then 1st authors lastname	13	22.03%
a.2 date then Titles Alphabetical Order  Table 3, continued.	46	77.97%

b. to 1st authors lastnames. (if choosen)	28	22.22%
b.1 1st authors then date	4	14.29%
b.2 1st authors then Titles Alphabetical Order	24	85.71%
c. to Titles alphabetical order (if choosen)	39	30.95%
c.1 Titles alphabetial order then date	33	84.62%
c.2 Titles Alphabetical Order then 1st authors lastnames	6	15.38%
4. Thesis and Special Project Books should have its own Number	103	81.75%
Circulation		
1. The thesis books and/or special project books to be borrowed/returned should be logged and generate report of logs	97	76.98%
2. Students who opened electronic Thesis and Special Project Books should be logged and generate report of logs	118	93.65%
3. Electronic Thesis and Special Project Books should be access code protected	123	97.62%
4. File Abstract can be printed.	107	84.92%
Table 3, continued.		
5. Electronic Thesis and Special Project Books should not be edited	113	89.68%
6. Electronic Thesis and Special Project Books should not be copied electronically - for viewing only	61	48.41%
7. Electronic Thesis and Special Project Books is downloadable and can be saved to storage media	120	95.24%
8. There is a report confirming that the thesis books and/or special project books are borrowed or return.	125	99.21%
System Features		
1. All menus and sub menus are easy to click.	111	88.10%
Table 3, continued.	<u> </u>	l
2. The interface design should be user friendly.	117	92.86%

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3. Back-next feature is provided.	89	70.63%
4. Data entry operations can accept either uppercase or lower cases	83	65.87%
5. A message alert should be employed for erroneous entry.	80	63.49%
6. The system should be secured with an access code.	121	96.03%

The data on Table 3 shows that CCS students' selections of features of the automated system to develop are closely similar with that of the CCS faculty. The CCS students want to have the arrangement of books in a certain order for easy identification. It can be observed that CCS students would like that the Thesis and Special Project books be arranged in a clear and particular order. A total of 46.83% CCS students agreed that the arrangement must be done by date and sorted accordingly by Thesis and Special Project books titles.

For the circulation features, there are 76.98% CCS students who selected that the thesis books and/or special project books to be borrowed or returned should be logged and the system must generate report of logs. There are 93.65% CCS students who agreed that Thesis and Special Project books should be logged and reports should be generated.

Moreover, with relations to security management, 97.62% of the CCS students perceived that Electronic Thesis and Special Project books should be access-code protected. Furthermore, 84.92% of the CCS students agreed to have File/Books Abstract printed. Additionally, CCS students also agreed with high percentage that Electronic Thesis and Special Project Books should not be editable. Electronic Thesis and Special Project Books should not be copied electronically meaning for users viewing only. Electronic Thesis and Special Project Books limited view can be downloaded and may be saved in storage media. There should be a report confirming that the thesis books and/or special project books are borrowed or returned.

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Other system features presented are also highly recommend based on the percentage rating by the CCS students since all system feature has more than 50% percentage rating.

The data obtained is also verifiable. The secretary and her student assistants suggested that the opened file should not be edited and always be protected with an access code. Only file abstract is to be printed. Statistical reports or logs can be generated and in orderly sequence. For verification and tracing convenience, other reports related to record keeping and circulation are also suggested to be printed or generated.

Based on the above results, the following data flow diagram and system flowchart depict the design of the system to be developed.

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## **System Data Flow Diagram**

(Concept is based on Shelly, Gary et.al., 2007)

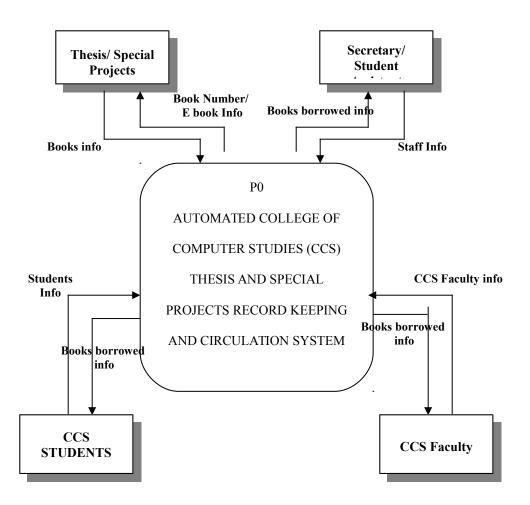


Figure 1. Context Diagram 0

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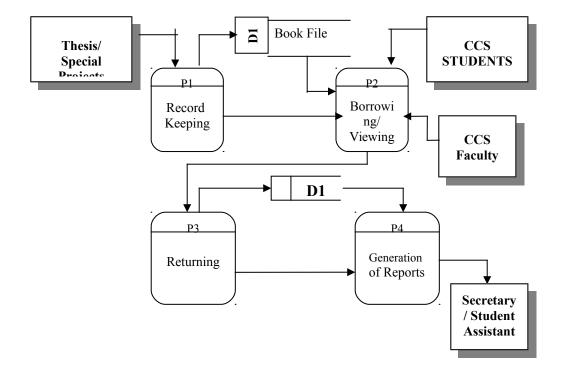


Figure 2. System Diagram 0

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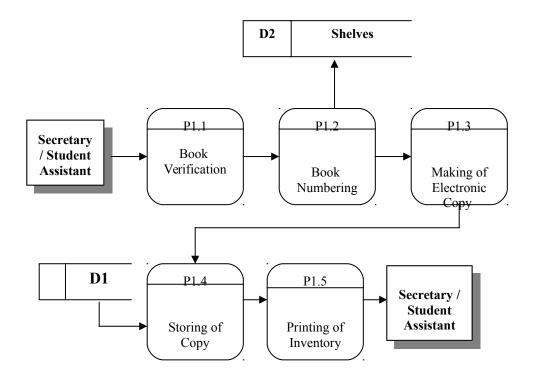
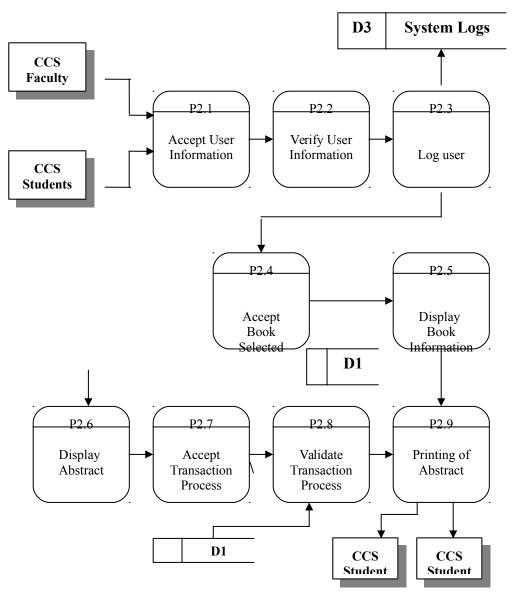


Figure 3. Level 1 Record Keeping



**Figure 4.** Level 1 Borrowing/Viewing

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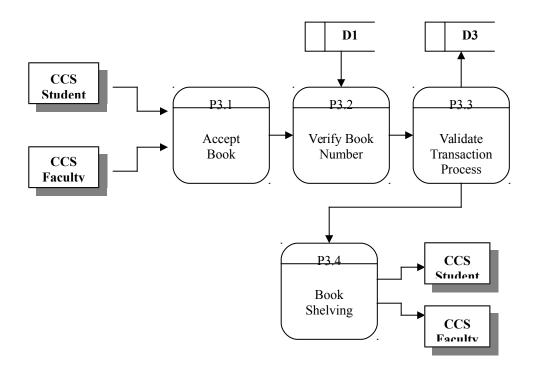


Figure 5. Level 1 Retuning

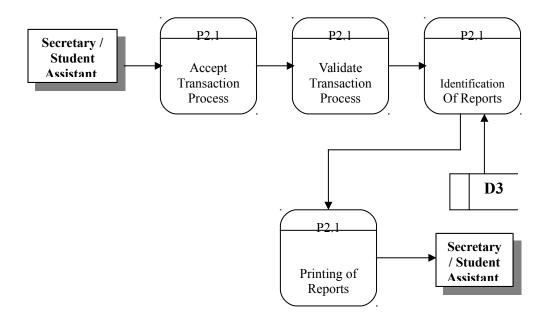
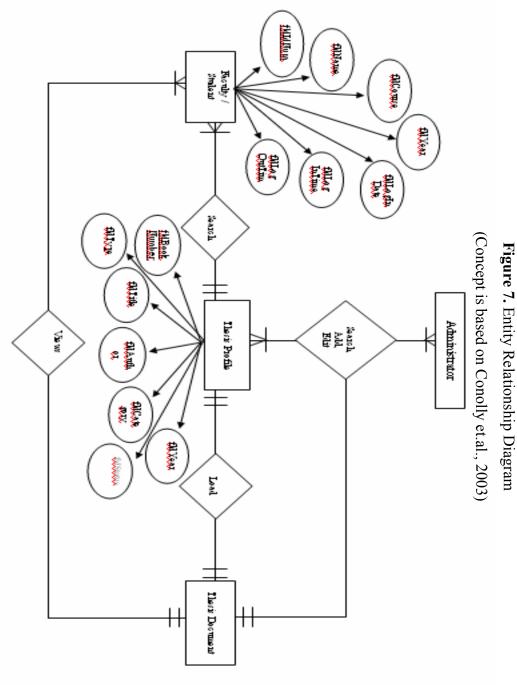


Figure 6. Level 1 Generation of Reports



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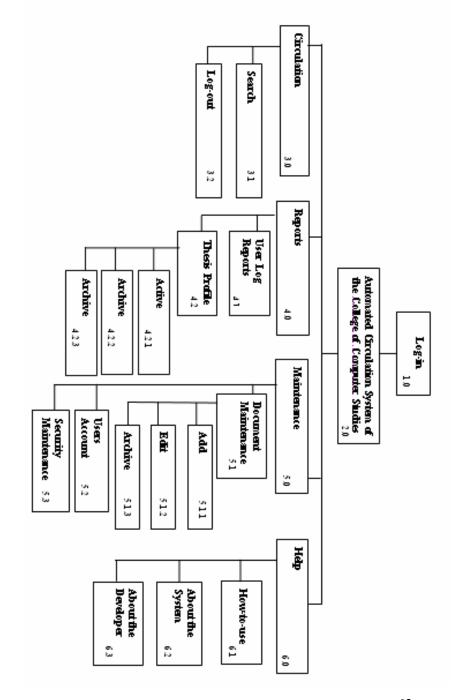


Figure 8. Virtual Table of Contents (VTOC)-(CCS-Admin

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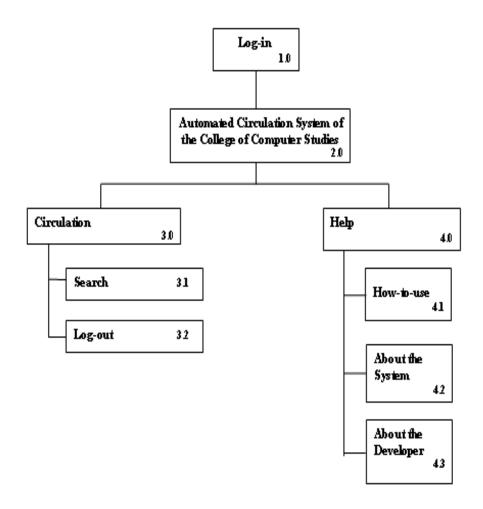


Figure 9. Virtual Table of Contents (VTOC) - (CCS Student/Faculty)

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## SYSTEM FUNCTION

Input – Process – Output (IPO)

**Module Name:** Log – in

Input: Username & ID Number/Password

**Process:** 

Access Database

Open tblUsers and tblUserLogReport

If cmboUsername = fldUserName Then
If txtPassword = fldPassword Then

Display Login Successfully

Message

Show Main Menu

Else If cmboUsername = fldUserName Then If txtIDNumber = fldIDNumber Then Display Login Successfully

Message

Show Main Menu

Else

Display Error Message

End

Output: Verified Username & ID Number/Password, Main Menu

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cmboUserName txtPassword

Figure 10. Log-in Form (CCS Administrator)



cmboUserName txtIDNumber

Figure 11. Log-in Form (CCS Student and Faculty)

**Module Name:** Circulation - Search **Input:** Title, Author, Category, Year

**Process:** 

Access Database Open tblThesis

If optTitle = True Then

If txtSearch = fldTitle Then

**Show Results** 

End

Else If optAuthor = True Then

If txtSearch = fldAuthor Then

**Show Results** 

End

Else If optCategory = True Then

If txtSearch= fldCategory Then

Show Results

End

Else If optYear = True

If txtSearch = fldYear Then

**Show Results** 

End

Else

Display Error Message

End

**Output:** Display the Thesis Document (PDF Format)

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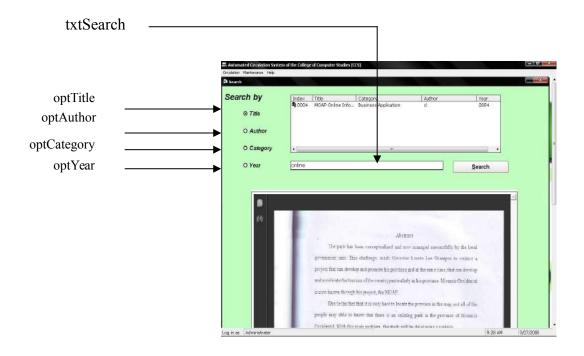


Figure 12 . Search Form

Module Name: Circulation - Report - User-Log Report

Input: Date Process:

Access Database

Open tblUserLogReport

If datepckr = fldLogInDate Then

**Show Results** 

Else

Display No Match Found Message

Output: Display the Users Account Details according to the asked date

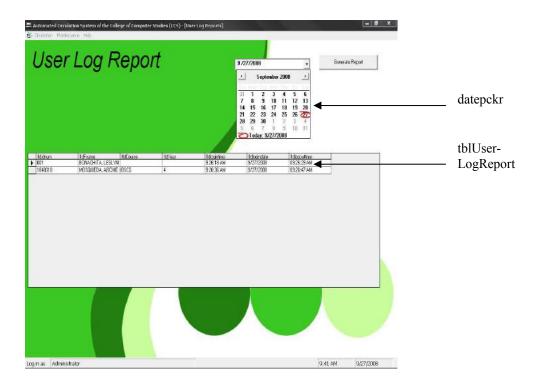


Figure 13. User Log Report Form

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**Module Name:** Circulation - Report – Thesis' List

Input: Click Menu Thesis List

**Process:** 

Access Database Open tblThesisList

Output: Display Thesis' List

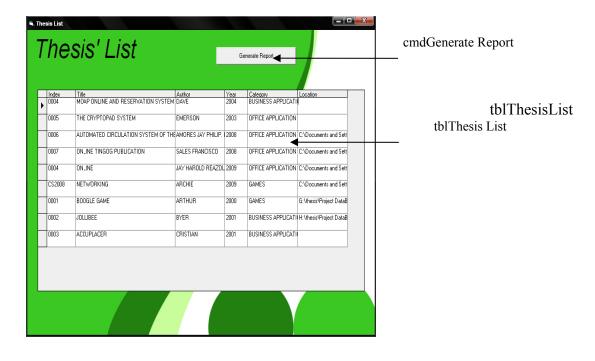


Figure 14. Thesis' List Form

**Module Name:** Maintenance – Security

Input: Old password, New password, Confirm password

**Process:** 

Access Database Open tblUser

If txtOldPassword = fldPassword Then If txtNewPassword =

txtConfirmPassword Then

Save changes

End

**Output:** Modified Security Accounts

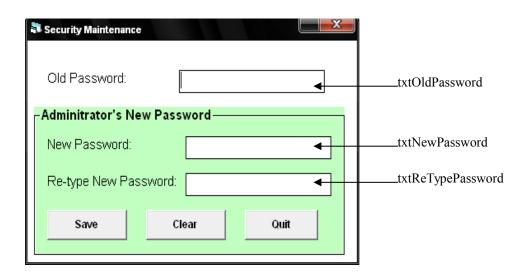


Figure 15. Security Maintenance Form

Module Name: Maintenance - Thesis Document

Input: Book Number, Thesis title, author, category, year

**Process:** 

Access Database Open tblThesis

If optMainAdd = True Then

**Enter Thesis Info** 

Save

Else If optEdit = True Then

Enter Book Number or Double-click the

Data Grid

Edit Thesis Info

Save changes

End

**Output:** Thesis Profile Saved

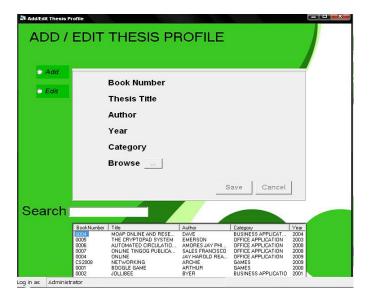




Figure 16. Add/Edit Thesis Documents Form

#### 4. Conclusion and Recommendations

The College of Computer Studies of La Salle University use the traditional and manual type of filing the Thesis and Special Project Books. With the present design, development and testing of the automated system, it is found out to be functional and ready to use. Even with its slight technical shortcomings, it is found to be manageable.

Therefore, we highly recommend that the Automated College of Computer Studies Thesis and Special Project Books Record Keeping and Circulation System be used and applied.

#### Recommendations

The advancement of technology and its availability take into account and consideration the betterment of the research. The following are the recommendations:

- 1. Adobe Reader constantly updates its software. Since the system only reads Adobe Reader ver. 7.0, it is recommended to incorporate in the next design the constant updates in the software.
- 2. As the number of thesis and special projects increases every year, there is a tendency in the future that the capacity of the database will be at its high consumability. A new database system should also be adapted to accommodate voluminous number of thesis and special projects book entries.
- 3. To facilitate fast searching and matching as the number of books increases, a better algorithm is recommended.
- 4. To allow multiple users, the researchers also recommend having a Local Area Network connection of the system.
- 5. In the advent of web designs and applications, the researchers recommend to have a web application of such system to cater to non LSU researchers and for easy access of thesis and special projects books while away from school.

# **List of References**

- 2003. Connolly, Thomas, et. al., Database Systems, A Practical Approach to Design, Implementation and Management, Third Edition, Pearson Education Asia Pte Ltd.,.
- 1998. Gilberg, Richard, et. al. Data Structures. Brooks/Cole Publishing Company
- 2007. Shelly, Gary B., et.al. Systems Analysis and Design.
- 74 -----November-December 2009 Vol. 14 No. 5

- 2000. Deitel & Deitel, et.al., Visual Basic 6 How to Program.
- 2009. Aguilar, Analyn. Secretary, College of Computer Studies. La Salle University, Ozamiz City
- 2009. Betonio, Claire. Student Assistant. College of Computer Studies. La Salle University, Ozamiz City
- 2009. Ortega, Maricel. Student Assistant. College of Computer Studies. La Salle University, Ozamiz City

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# Design and Implementation of La Salle University Payroll System

# Luisander C. Luy Carin Z. Cabatingan College of Computer Studies

#### Abstract

The study focuses on the Payroll System of La Salle University, Ozamiz City. Particularly, it will take into account the college and integrated school faculty, staff and maintenance only. Other transactions that are beyond the scope mentioned are no longer part of the study. Moreover, this study is a preliminary process in improving the payroll system.

The investigation made use of the descriptive method of research through interview, questionnaires and content analysis of documents. The study was conducted at La Salle University, Ozamiz City. The data of this investigation was gathered from the payroll-in-charge.

La Salle University uses a computerized payroll process limiting to some degree such as in computing the fixed deductions like Withholding Tax, Social Security System, Pag-ibig Contribution, PhilHealth/Medicare. The computation of the actual salary based on the faculty load per semester, extra load, variable deductions, 13<sup>th</sup> month salary and honorarium are all inputted to the system. With this, the payroll process does not fully utilize the extent to which computers are capable of. The existing reports generated by the payroll system are limited to some extent. The existing payroll system must be enhanced to maximize the use of the computers. Thus, allowing payroll clerks to be more productive.

With the findings of the study, it is recommended that payroll system be enhanced. It further suggests the following improvements: the automation of the daily time record using the biometric technology for staff, the use biometric technology will then be embedded into the payroll system and the payroll system be onlined.

#### 1. Introduction

Payroll is a business-critical operation for every organization. People must be paid accurately and on time. It is therefore essential to train staff properly, and implement procedures and disaster recovery plans to ensure payroll system continuity. Furthermore, the importance of giving due compensation to employees can affect their performance and can motivate them to do better. With such, it is deemed necessary to make an efficient and accurate payroll system.

In La Salle University (LSU), where there are more than 100 employees, a payroll system that is efficient and accurate is simply needed to carry out smooth operations on giving compensation to the backbone of the institution, the teachers. Certainly, a convenient and less time-consuming system to operate than carrying out manual calculations, could be beneficial not only to the accounting in-charge but to the institution as a whole. Nevertheless, employees work varying amounts of units each semester and if there is significant turnover to name a few, a payroll service that is time-saving and cost-effective could be the best alternative to internal processing.

In consonance with the main thrust of the College of Computer Studies (CCS), which is to design and develop office productivity tools that can uplift and enhance the instructional and managerial processes. The researchers plan to conduct a study on the design and implementation of the payroll system of LSU.

#### Review of Related Literature

Payroll processing nowadays have been enhanced through the use of computers. To name a new, first, the Department of Health in the Philippines uses a computerized Payroll System which is a window based program especially designed to facilitate and simplify the monthly preparation of general payroll and related reports. It is a standard computerized payroll system for use in all DOH offices. The system allows faster and more accurate computation of monthly gross

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income, deductions and net salary, has a faster and less-resource-consuming generation of General Payroll and other payroll related reports and with security and integrity of payroll data and information. (DOH Information Management Service, 2009).

Second, is the Quantum Philippine payroll which's cut payroll processing time by more than 80%! Designed for small and medium businesses, Quantum Philippine Payroll provides efficiency, accuracy and flexibility in one easy to use payroll program. What's more, Quantum Payroll can be customized to suit specific needs. Features include: Handles weekly, semi-monthly and monthly payroll cycle, ability to withhold or not withhold deductions for SSS, Philheath, Pagibig and BIR for each employee, creates diskette reports for SSS, Philheath, Pagibig and BIR, tracks different types of loans such as salary loan, pagibig loan, and SSS loan, tracks user defined leaves such as vacation leaves, sick leaves, maternity leaves, paternity leaves and others, generates pay slip and monthly reports and includes employee master database (Quantum X, 2009).

Lastly, the Uniform Staff Payroll System (USPS) which is used for running payrolls in school districts. This system is designed to create the employee and deduction company checks by running a series of programs in a specific order. In addition to generating payroll and deduction checks, reports and data files are also created to meet reporting requirements for various entities such as: Ohio Department of Job and Family Services (ODJFS), School Employees Retirement System (SERS), State Teacher's Retirement System (STRS) and Education Management Information System (EMIS) (Ohio Department of Education, 2008)

#### Theoretical Framework

Designing a Computerized Payroll System necessitates the use of some theories which are mentioned below.

First, Entity Relationship Diagrams (ERDs) which can be considered as graphical representations of Database design (DD) Entries. Information modelling is concerned with the definition of data within the system in terms of its meaning, composition and relationships. One of the methods within Cradle that can be used to represent information modelling is the use of an ERD.

Another important tool to be used is the Data Flow Diagram (DFDs) which shows the flow of information through the system but play no part in defining the information, apart from being a useful place from which to access DD Entries. Flows and stores on DFDs are essentially representations of information that is defined elsewhere.

While the DFD models the active processing of information by the system, the ERD models the static relationships amongst this information that are preserved and maintained by the system. The ERD shows how items of data relate, statically, to each other. ERDs cannot exist in a hierarchy, instead, either a single ERD is produced for the entire system analysis or design (when the ERD is considered to relate to the entire DFD hierarchy), and/or ERDs can be produced as companions to specific DFDs that contain a large quantity of stored data, and contain the processes that create, update, or otherwise maintain the stored data (3SL, 2009).

Lastly, a Hierarchy plus input-process- output (HIPO) is developed by IBM as a tool and documentation technique which attempts to; (1) provide a structure by which the function of a system can be understood, (2) state the functions to be accomplished and (3) provide a visual description of the input, process and output for each function. This tool is designed to define procedures and operations in a hierarchical manner, correlating input, processing, and output steps with the integrated whole expressed in the hierarchy diagram (HIPO, 2008).

# Research Objectives

The researchers specifically would like to answer the following problems:

- 1. What are the steps involved in making the payroll in La Salle University?
- 2. Based on the findings, how may a payroll system be designed and developed?

# Scope and Limitation

The study focuses on the Payroll System of La Salle University, Ozamiz City. Particularly, it will take into account the college and integrated school faculty, staff and maintenance only. Other transactions that are beyond the scope mentioned are no longer part of the study. Moreover, this study is a preliminary process in improving the payroll system.

Significance of the study

The study is beneficial to the following:

**Payroll in-charge.** The study will help the payroll in-charge in preparing the payroll on time, convenient, and error free.

**Employees.** The study will enable to build a trusting relationship on both the employees and the institution.

**Human Resource.** This will help the office to have an error free employee payroll record.

La Salle University. This study will help the institution pass reports such as Tax, SSS and others on time.

# 2. Methodology

This part of the study presents the description of the research flow, research environment, research respondents, research instruments, and the research procedure that describe further the data gathering procedure and the treatment of the data gathered.

The study makes use of the descriptive method of research for such involved the content analysis of the records. Such process produces answers to questions pertaining to the steps involved in making the payroll in La Salle University. Furthermore, it also provides for the description, interpretation and analysis of situations and practices that are involved in the payroll process of which serves as the basis for the design and development of an enhanced payroll system.

The research flow of this study is presented on Figure 1. It presents the necessary processes which the researcher will undertake in order to design and develop a payroll system for the employee of La Salle University.

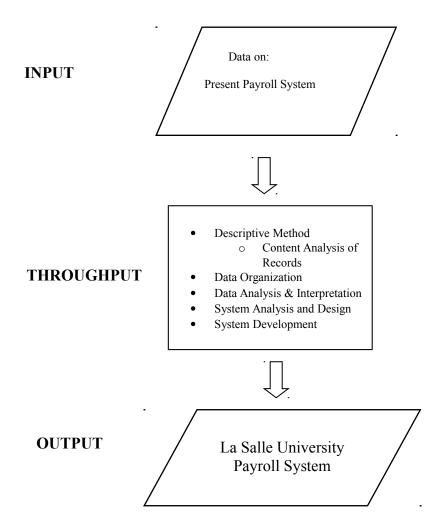


Figure 1. Research Flow of the Study

#### Research Environment

The study was conducted at the accounting office of La Salle University, Las Aguadas Street, Ozamis City during the first Semester of School Year 2007-2008.

The Accounting Office is under the leadership of the University Controller and is located at the ground floor of the La Salle Building of the main campus. It services the entire University, including Students, Faculty, Academic Services Faculty, Administrators, Administrative Services Personnel, Co-Academic Personnel, as well as personnel from other schools in the entire LSU System. Particularly, it is the one who makes the payroll of the entire university which is the main focus of this study.

# Research Respondents

The data of this investigation was gathered from the payroll incharge of La Salle University. The experiences of the payroll in-charge was accounted for and considered a source of data for further investigation.

#### Research Instrument

The researcher used interview guide as the main device to gather data and information necessary to answer the problems for this study. The interview sought to draw the steps involved in payroll processing.

A checklist was also used by the proponents as a supplement to give further insights on the study.

Furthermore, the researchers underwent a thorough content analysis of documents like the payslip and other documents that helped in the realization of this study.

#### Research Procedure

**Gathering of Data.** To enable the researchers to officially gather the data and information needed, a letter was sent to the payroll in-charge asking for cooperation and the schedule of interview was set at her convenient time. (See Appendix C for the transmittal letter).

The interview was personally conducted by the researchers to ensure accurate collection of data together with a checklist was given to her to answer.

**Treatment of Data.** Data gathered was analyzed and synthesized to tailor to the objectives of the study. Moreover, data treated as facts and evidences that serve as a basis for further reviews.

#### 3. Results and Discussion

To answer the first problem of the study, here is the narrative flow of the existing payroll system.

The existing payroll system starts when the payroll clerk enters the username and password to access the system. Then he/she will input the Employee number of the employee. The system will generate the basic salary of the employee. After, input the other gross income like Extra (College), Extra (High School), Others, Honorarium and 13<sup>th</sup> month. After which, fixed deductions will be generated.

Fixed deductions: Witholding Tax, Social Security System, Pag-ibig Contribution and PhilHealth/Medicare

After generating the fixed deductions the variable deductions is entered.

Variable Deductions: Tuition, Advances, SSS Loan, Pag-ibig Loan, Book/Rental/Sale/etc, Credit Union, Overdraft, Canteen, Refund and CEAP

Schedule of Deductions:

15<sup>th</sup> of the month: 30<sup>th</sup> of month:

Pag-ibig Contribution SSS (inclusive SSS Loan)

(inclusive Pag-ibig Loan)

Witholding Tax Medicare

CEAP Withholding Tax

Then, the system will generate the variable deductions to compute the net salary of the employee. Last is the printing and issuance of pay slips to the employee.

Based on the above narrative flow, the proponents came up with a proposed payroll system using the latest technology that is geared towards the enhancement of the existing one. Such design of the proposed payroll system can be described using the tools presented below

# **Context Diagram**

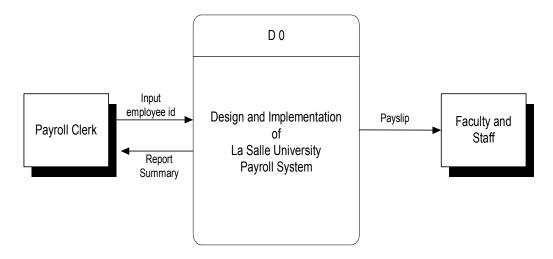


Figure 2. Context Diagram 0

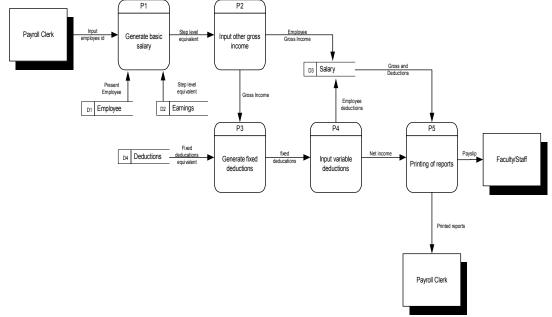


Figure 3. DFD of the Proposed Payroll System

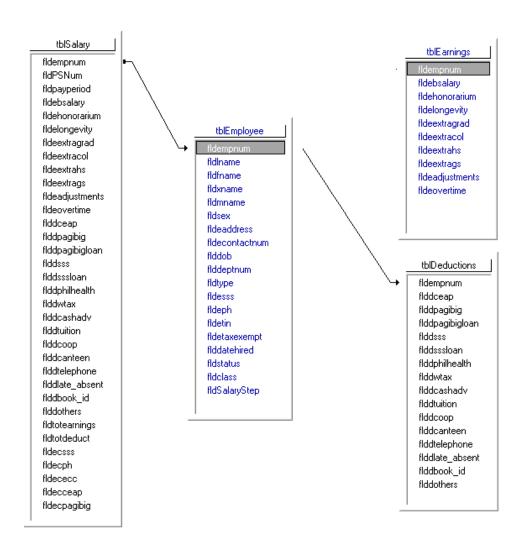


Figure 4. Entity Relationship Diagram

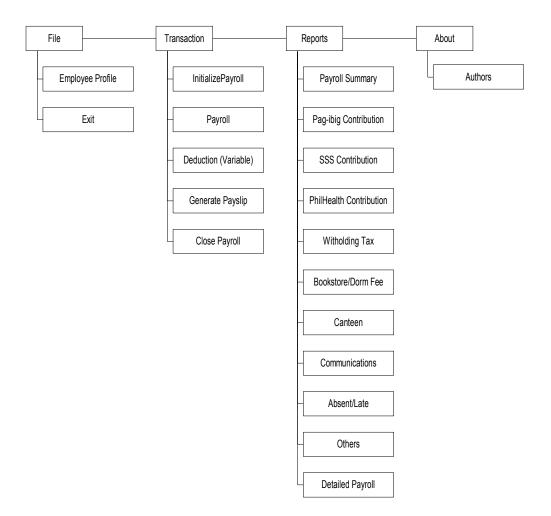


Figure 5. Hierarchical Input-Process-Output

# **SCREEN SHOTS**



Figure 6. Employee Profile Form

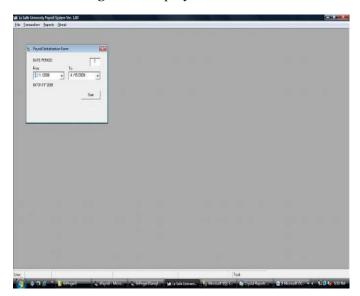


Figure 7. Payroll Initialization Form



Figure 8. Payroll Form

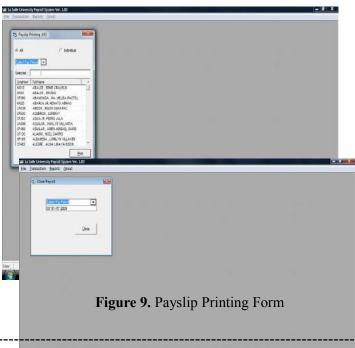


Figure 10. Close Payroll Form

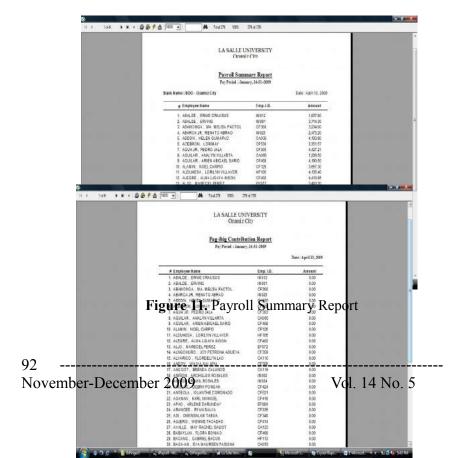


Figure 12. Pag-ibig Contribution Report

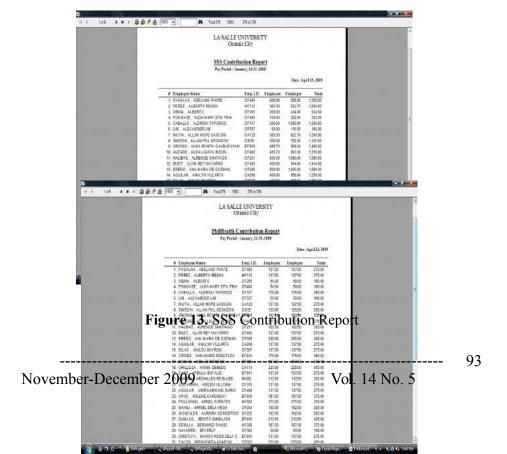


Figure 14. PhilHealth Contribution Report

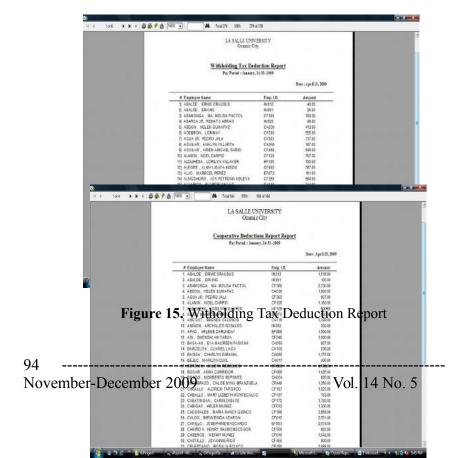


Figure 16. Cooperative Report

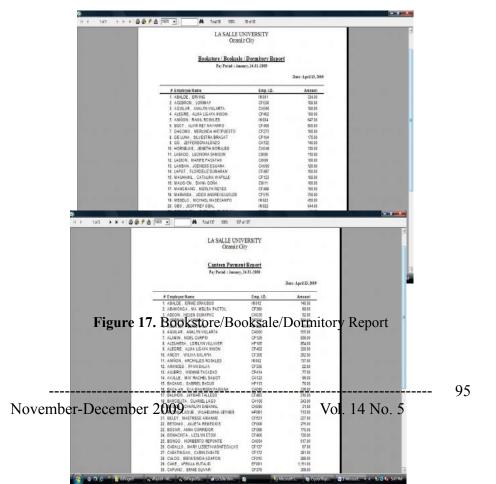


Figure 18. Canteen Payment Report

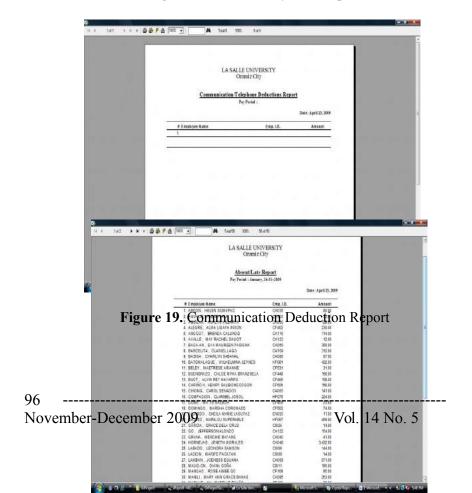


Figure 20. Absent/Late Report

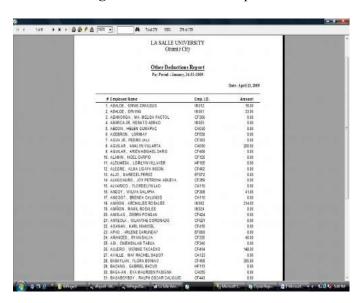


Figure 21. Other Deduction Report

# 4. Conclusions and Recommendations

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#### Conclusions

After a thorough analysis of the existing payroll system of La Salle University, Ozamiz City, the proponents came to the following conclusions:

- 1. La Salle University uses a computerized payroll process limiting to some degree such as in computing the fixed deductions like Witholding Tax, Social Security System, Pagibig Contribution, PhilHealth/Medicare. The computation of the actual salary based on the faculty load per semester, extra load, variable deductions, 13<sup>th</sup> month salary and honorarium are all inputted to the system. With this, the payroll process does not fully utilize the extent to which computers are capable of.
- 2. The existing reports generated by the payroll system are limited to some extent.
- 3. The existing payroll system must be enhanced to maximize the use of the computers. Thus, allowing payroll clerks to be more productive.

#### Recommendations

Though an enhanced payroll system can be employed, still the proponents would like to recommend some further improvements to the system as follows:

- 1. The automation of the daily time record using the biometric technology for staff.
- **2.** The use biometric technology will then be embedded into the payroll system.
- **3.** The payroll system be on lined.

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### List of References

- 2009. Computerized Payroll System. DOH Information Management Service. Uploaded from: http://doh.gov.ph/r ims/cps.htm
- Philippines Quantum X. Quantum Philippine Payroll, Uploaded from: http://www.quantumx.com/philippinepayroll.htm.
- 2008. Uniform Staff Payroll System. Ohio Department of Education., Uploaded from: http://www2.oecn.k12.oh.us/www/ssdt/usps/usps\_user\_guide.ht ml
- 2009. Entity Relationship Diagram 3SL. Uploaded from: http://www.threesl.com/pages/reference/diagrams/entity-relationship-diagram.php
- 2008. Hierarchy plus input-process- output (HIPO).

  Uploaded from: http://www.scribd.com/doc/5339259/HIPO-LECTURE

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# Appendix A

#### Checklist

- 1. Do you have a system for computing standard deduction?
  - a. Withholding Tax
  - b. Social Security System
  - c. Pag-ibig Contribution
  - d. PhilHealth/Medicare
- 2. Do you manually compute the faculty's load and extra load?
- 3. Are there times that faculty load computations are made erroneous?
- 4. Do you want to automate the faculty load computation?
- 5. Is tardiness especially for staff directly recorded in the payroll for direct computation?
- 6. Do you want to automate the daily time record?
- 7. What do you want to be the basis for log-in and out of staff?
  - a. Bar Coding with the use of ID
  - b. Biometrics
- 8. Are all the reports needed for the payroll made available by the old system?
- 9. Does the faculty have instant access to their payroll?
- 10. Do you want the payroll to be on lined?

# Reading Proficiency of CNHS Sophies: Basis for Improving the English Tutorial Program

# Catalina B. Wapille-Maghamil College of Arts and Sciences

#### **Abstract**

This descriptive type of research aims to determine the reading proficiency level of the CNHS second year students as well as their perception towards the English Tutorial Program of the LSU Languages Department. It was found out that the 63 respondents had moderately satisfactory reading proficiency level and that their perception level was positive. There is no significant relationship between their perception and proficiency level.

#### 1. Introduction

In the study of English, reading has often been at the center of many theories and strategies proposed by teachers and scholars. Theories about reading and numerous teaching techniques have created an awareness of the influence reading has on listening, speaking, writing, and even translating. It plays a crucial role in fulfilling the educational achievement and language development of students and provides a base (background) for the grammatical efficiency of the students in English and native languages, contributes to the thinking using any or both languages, and raises the communication level.

But reading just for the sake of reading is meaningless without comprehension. If reading is the process of recognition, interpretation, and perception of written or printed material, comprehension is the understanding of the meaning of the written material and covers the conscious strategies that lead to understanding. The process of reading deals with language form, while comprehension, the end product, deals with language content.

It is this end product of reading that most students have problems with. Many students achieve accuracy in recognition and pronunciation, but few succeed in comprehension. Several English skills are needed in order to read and comprehend a selection (Villamin, 1996). Although it is difficult to state definitely how persons achieve comprehension while reading, studies seem to suggest that good comprehenders appear to have certain characteristics. Good comprehenders are able to do inferential reasoning. They can state the main idea or central idea of information, they can assimilate, categorize, compare, make relationships, analyze, synthesize and evaluate information (Rubin, 1991).

For several years, it has been widely observed in most public and private high schools all over the country that the students' reading comprehension has deteriorated to a large degree. Many first year college students have been observed to have a very low level of comprehension. In fact, a certain percentage could hardly even read at all.

The Languages Department of La Salle University has always believed in the development of the linguistic competence of the students that would aid them not only in the understanding and comprehension of facts and figures in their respective academic subjects but also in their dealings in real life. This development, however, should start as early as during their basic education training and to be intensified during their tertiary education.

For that matter, the department has decided to extend its support to the English education of public high school students through its English tutorial program in Calabayan National High School (CNHS).

It has been three years since the department has started its tutorial program in CNHS. On its first year, the program was conducted twice a month for two months – January and February – of the later part of the school year. On its second year, the program was conducted

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10 times for twice a month from July to February. Similarly, on its third year, the tutorial session was only conducted 6 times due to conflicts in schedules and activities between the department and the high school.

Thus, the researcher deemed it necessary to evaluate the program by assessing the students' reading comprehension skills, find out the strengths and weaknesses of the program, and determine the tutees' perception of the program as basis for improvement for the next school year.

# Theoretical/Conceptual Framework

# A. Tutorial Program

As mentioned in the study of Malig-on (2007), tutoring is an approach in which one person instructs another person on material in which the first is an expert and the second is a novice. Thus, it refers to a more advanced student guiding and encouraging less experienced ones.

As gleaned above, tutorials valuably help students achieve academic and personal success by improving study skills, building confidence and clarifying goals. In fact, the same study of Malig-on on The Tutorial Extension Program of LSU –Mathematics and Sciences Departments in Calabayan National High School has found out that their tutorial program has helped the students a lot in terms of their achievement in Mathematics and Science. Further, the teachers in Calabayan as well as the tutors and tutees agreed that the tutorial program is useful.

# B. Reading Comprehension

Reading comprehension is the process of negotiating understanding between the reader and the writer. This, however, not only includes linguistic factors in addition to cognitive and emotional factors, but also

tends to be affected by the reader's reaction to the content which affects the reader's evaluation and appreciation, which then becomes a part of the reader's reading comprehension.

The cognitive model of reading comprehension devised by Brunner (1978) is used in this study. According to him, there are four levels of comprehension: literal, inferential, evaluative, and appreciative.

Literal comprehension involves two types of tasks: recognition and recall. Recognition includes identifying the main points in the reading selection or in exercises that use explicit content of the reading selection. Recall, on the other hand, involves producing from memory explicit statements from selections. It is believed, however, that a recall task is more difficult than a recognition task when the two tasks deal with the same content.

Inferential comprehension, on the other hand, is demonstrated when students use their personal knowledge, intuition, and imagination as a basis for conjectures or hypotheses. It involves more logical thinking than literal understanding.

Students demonstrate evaluation when they make judgments about the content of a reading selection by comparing it with information, or with their own experience, knowledge, or values related to the subject.

Finally, appreciation deals with the psychological and aesthetic impact of the selection on the reader. It includes both knowledge of and emotional responses to literary techniques, forms, styles, and structures.

This paper evaluates the effectiveness of the English tutorial program through assessing the students' reading comprehension skills, find out the strengths and weaknesses of the program, and determine

the respondents' perception of the program as basis for improvement for the next school year.

#### Statement of the Problem

This paper aims to identify the students' level of reading proficiency. Specifically, it seeks to answer the following questions:

- 1. What are the respondents' profile in terms of:
  - a. their level of reading proficiency
  - b. their perception towards the tutorial program
- 2. What are the strengths and weaknesses of the tutorial program?
- 3. What are the tutees' suggestions to improve the English tutorial program?
- 4. Is their a significant relationship between the students' perception toward the tutorial program and their level of reading proficiency?

# Null Hypothesis:

There is no significant relationship between the students' perception towards the tutorial program and their level of reading proficiency.

# Importance of the Study

This study will be used as basis to improve the English tutorial program in Calabayan National High School. This is further significant in the following aspects.

## A. Individual Level

their reading comprehension skills. More importantly, the tutorial program that will be given to them will help them improve their level of reading comprehension.

**CNHS English teacher.** The results of the study will help the English teacher in Calabayan National High School to come up with better strategies to improve the students' level of reading comprehension.

# B. Organizational Level

**Languages Department.** With the results of this study, the department, specifically the English faculty, can now come up with better strategies and activities to really help the students improve their reading proficiency level.

Calabayan National High School. The school will better understand its students and provide more opportunities and budget for students to improve their reading proficiency.

Scope and Limitation of the Study

This study focuses only in determining the reading proficiency level of the students who attended the tutorial program. Due to conflicts in schedule and activities, the program has been conducted irregularly for the past three years. Also, for the past three years, there has been only one English teacher handling all the English subjects in CNHS from first year to fourth year. Moreover, as requested by the principal and English teacher of the school, the recipients of this year's tutorial program are the second year students who are about to take the National Achievement Test this March. For that matter, the respondents of this study are only the second year students who are participating in the tutorial program.

The tutors of the program are the 2<sup>nd</sup> year to 4<sup>th</sup> year English majors from the College of Arts and Sciences and College of Education with the English faculty acting as facilitators.

Also, for the past three years, there has been only one English teacher handling all the English classes in the said school.

# 2. Methodology

The data and information discussed in this paper were gathered and collated through the use of descriptive research method.

# Respondents

All second year students of CNHS for SY 2008-2009 who have availed of the English tutorial program were taken in as respondents. Of the 74 second year students, only 63 sophies had attended the program – 26 boys and 37 girls.

# **Data Gathering Instruments**

The data gathered in this study were obtained through the use of the following instruments:

**Survey Questionnaire** was prepared and used to gather the tutors' perceptions towards the program.

A **researcher-prepared instrument** was used to determine the students' level of reading proficiency. The 45-item test included questions on the four levels of comprehension.

In the interpretation of the test scores, the following levels of scores and the corresponding verbal equivalents were used:

Comprehension Level	Scores	Equivalent
Literal	10-13	High
	6-9	Average
	2-5	Low
Interpretive	8-11	High
	4-7	Average
	0-3	Low
Evaluative	6-7	High
	3-5	Average
	0-2	Low
Appreciative/Creative	6-7	High
	3-5	Average
	0-2	Low

In determining the reading proficiency level of the students, their total score in the reading comprehension test was taken. To interpret the scores, the researcher used the following scale:

Scores	Verbal Equivalent	
38 - 45	Excellent	
30 - 37	Very Satisfactory	
22 - 29	Satisfactory	
14 - 21	Moderately Satisfactory	
7 - 13	Fair	
0 - 6	Poor	

Interview was done involving tutees, teacher, and principal of CNHS to gather their comments and general opinions regarding the strengths and weaknesses of the program and their suggestions for improvement.

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#### 3. Results and Discussions

The results of the study conducted are presented in the following tables and discussions.

Table 1 shows the reading comprehension level of the students.

Table 1: Reading Proficiency Level

Scores	Verbal Equivalent	Number of Students	Percentage
38 - 45	Excellent	0	0
30 - 37	Very Satisfactory	0	0
22 – 29	Satisfactory	22	35
14 – 21	Moderately Satisfactory	25	40
7 – 13	Fair	13	20
0-6	Poor	3	5

The Table above shows that most of the respondents (40%) had moderately satisfactory reading proficiency while 5% or 3 of 63 respondents had poor reading proficiency. On the other hand, no one among them had very satisfactory nor excellent reading proficiency levels

From the above findings, it can be deduced that the respondents have good reading proficiency. It means that they can process and understand the information read

Table 2 shows the students' scores in the literal level.

Table 2: Literal Comprehension Level

Scores	Verbal Equivalent	Number of Students	Percentage
10-13	High	29	46
6-9	Average	27	43
2-5	Low	7	11

It is gleaned from the Table above that most of the respondents had high literal comprehension level with 29 students (46%) getting scores of 10-13 points.

These findings are consistent with what Redondo (1994) has found out in her study where majority of the students have average to high scores in the literal level. These further shows that the second year students can easily remember information explicitly stated in the text. Besides, answers to literal questions simply demand the students to recall from memory what the text says.

Table 3 shows the students' scores in the interpretive level.

Table 3: Interpretive Comprehension Level

Scores	Verbal Equivalent	Number of Students	Percentage
8-11	High	7	11
4-7	Average	36	57
0-3	Low	20	32

This shows that majority of the respondents (57%) had only average scores as far as the interpretive level was concerned; not far behind, however, were the students who got low scores in the comprehension test. The findings reveal that although majority of the respondents got average scores, more than one-fourth of the student respondents obtained low scores.

The results further suggest that the majority of the second year students know how to read between the lines. They are able to get a full grasp of the selections beyond the literal level.

Table 4 shows the students' scores in the evaluative level.

Table 4: Evaluative Comprehension Level

Scores	Verbal Equivalent	Number of Students	Percentage
6-7	High	1	1
3-5	Average	26	42
0-2	Low	36	57

The Table above shows that 36 of the respondents (57%) have low scores in the evaluative level while only one student got a high score.

From the above data, it is gleaned that students really had difficulty in evaluating literary pieces in terms of the quality, the value, the accuracy, and the truthfulness of what was read. In the evaluative level, comprehension of a reading material involves not only the ideas directly stated and the inferences made on these stated facts but also making judgments or conclusion of the said facts (Robles, 1988).

Table 5 shows the respondents' scores in the creative/appreciative level.

Table 5: Creative Comprehension Level

Scores	Verbal Equivalent	Number of Students	Percentage
6-7	High	15	24
3-5	Average	34	54
0-2	Low	14	22

The table above shows that 34 respondents (54%) have average scores in the creative comprehension level. The results show that majority of the respondents were able to answer correctly the creative questions after each selection.

It is noticeable that their scores in the creative level are higher compared to their scores in the evaluative level. This is somehow not consistent with what is the norm. Being the highest level, the creative level should jibe with the results of the evaluative level.

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These findings, however, are consistent with what Redondo (1994) has found out in her study where the respondents got very low scores in the evaluative level

It is deduced, then, that the students found it easier to apply to their lives what they have learned from the selection rather than making judgments or conclusions on the ideas presented in the texts.

Table 6 shows the frequency of the students' attendance in the tutorial program

Table 6: Respondents' Attendance in the Tutorial Program

Frequency of Attendance	Number of Students	Percentage
Always	21	33
Sometimes	42	67
Never	0	0
Total	63	100

Of the 63 students who had attended the English tutorial program, only 21 (33%) had consistently been present every tutorial session. Majority of them (67%) only attended the program irregularly. This was caused by several factors such as having many tasks to perform at home on Saturdays, living far from the school, among other reasons presented by the tutees.

Table 7 shows the students' motivation in attending the tutorial program.

Table 7: Motivation in Attending the Program

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Motivation	Frequency	Percentage		
I like to learn about English.	37	59		
My grade in English is very low.	1	1		
Our teacher requires us to attend the	25	40		
tutorial session.				

As shown in the Table above, majority of the respondents (59%) revealed that they attended the program because they liked to learn more about English. Significantly, 40% of them stated that they attended the program only because their teacher required them to attend.

Table 8 shows the students' reasons for not attending the tutorial program.

Table 8: Factors Affecting the Respondents' Absence during the Tutorial Program

Reasons	Frequency	Percentage
I have many tasks at home.	38	42
My parents do not allow me to come.	11	12
I am already tired to go to school on	8	8
Saturday.		
I have other things to do.	18	20
My house is very far from school.	14	15
I don't need the tutorial program.	1	1
My grade in English is already good.	1	1

Among the many reasons presented by the respondents for their inability to attend the program, having many tasks at home to perform was their most common reason with a frequency of 38 or 42%. There were two students, however, who said that they did not attend the tutorial sessions because they did not need it and their grade in English was already good.

Table 9 shows the students' perception of the tutorial program.

Table 9: Perception of the Tutorial Program

Scores	Levels	Number	Percentage
4.21-5.00	Very Positive	22	35
3.41-4.20	Positive	38	60
2.61 - 3.40	Slightly Positive/Negative	3	5
1.81 - 2.60	Negative	0	0

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1.01 - 1.80	1.01 – 1.80 Very Negative		0
Table 9, conti	nued.		
Total		63	100

From the above table, it is revealed that 60% of the respondents had positive perception towards the English tutorial program.

This result is consistent with what Malig-on (2007) found out in her study where the respondents revealed that the Math-Science Tutorial Program was very helpful.

Table 10 shows the strengths and weaknesses of the tutorial program according to the tutees, English teacher, and principal of CNHS as well as their suggestions to improve it.

Table 10: Strengths, Weakness of and Suggestions to Improve the Program

	·	
Strengths	Weaknesses	Suggestions
The tutorial program	The tutorial program is	The program must be
helps me to understand	not conducted regularly	conducted every Saturday
my lessons in English.	due to conflict with the	or as regularly as possible.
, ,	school's activities.	
The tutors speak the	The topic discussed is not	Topics discussed must be
language well.	related to our lessons in	related to the lessons in
	English.	their English subject.
They teach the subject	The English tutors do not	The program must include
matter well.	explain the topic well.	speech, grammar, spelling,
		and writing activities.
I get higher scores and	There are no instructional	Tutors must use visual aids
grades in English	materials or visual aids	in discussing the lessons to
because of the tutorial	that help us understand	facilitate better
program.	the topic.	understanding.
The English tutors are	The attendance of the	
very approachable.	students is not regular due	
	to distance and financial	
	problems.	

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Based on the Table above, the students, English teacher, and principal of Calabayan National High School found the program useful. In fact, they gave suggestions in order to improve it and help the students more.

Table 11 shows the relationship between the respondents' perception of the tutorial program and their proficiency level.

Table 11: Relationship between Perception and Proficiency Level

	Chi-Square Results	Sig. (P- Value)	Decision	Interpretation
Perception Vs	.527	0.997	Failed to	No Significant
Reading			Reject Ho	Relationship
Proficiency Level				

From the above table, it is clear that there is no significant relationship between the students' perception regarding the tutorial program and their reading proficiency level.

This study negates what has been proven in many researches that perception of a person towards a certain program really affects his/her performance in that program.

As with many previous researches, this study has proven that perception of a person towards a certain program really affects his/her performance in that program.

## 4. Summary, Conclusion, and Recommendations

This study aimed to identify the reading proficiency level of the second year students of Calabayan National High School who attended the English Tutorial Program as well as their perception of the said

program. The data and information discussed in this paper were gathered and collated through the use of descriptive research method. Of the 74 second year students enrolled in the said school for SY 2008-2009, only 63 sophies have attended the program - 26 boys and 37 girls – and were all taken in as samples.

The obtained data generated the following findings: (1) most of the respondents (40%) have moderately satisfactory reading proficiency; (2) most of the respondents have high literal comprehension level, average scores for the interpretive level, low scores in the evaluative level, and average scores in the creative level; (3) majority of them (67%) did not regularly attend the program; (4) 60% of the respondents had positive perception towards the English tutorial program.

#### Conclusions

Based on the findings of this study, the researcher has come up with the following conclusions:

- 1. The second year students of Calabayan National High School have moderately satisfactory reading proficiency.
- 2. They have a positive perception towards the English Tutorial Program.

### Recommendations

Based on the findings and conclusions made, the following recommendations are given:

1. The English Tutorial Program must be conducted regularly – every second and fourth Saturday of the month.

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- 2. The tutors must employ varied reading activities and strategies to improve the students' level of reading proficiency.
- 3. Instructional materials and visual aids must be used to facilitate learning and understanding.
- 4. Tutors and CNHS should work hand in hand in monitoring the attendance of the tutees.
- 5. Continuing evaluation must be conducted to determine the effectiveness of the program in terms of the tutees' academic performance and achievement.

#### List of References

- 2007. Malign-on, M. Tutorial Extension Program of LSU-Mathematics and Sciences Departments in Calabayan National High School. Lasallian Research Forum.
- 2004. Redondo, E. Reading Proficiency of the Firs Year High School Students of Mindanao State University-Lanao Norte Agricultural College and a Proposed Functional Reading Program. Unpublished Thesis. ICC-La Salle.
- 1988. Robles, F. Developing English Proficiency in College Book 1. Quezon City: JMC City Press, Inc.
- 1991. Rubin, D. Diagnosis and Correction in Reading Instruction, 2<sup>nd</sup> ed. Boston: Allyn and Bacon.
- 1996. Villamin, A., et.al. Developmental Reading. Quezon City: Phoenix Press, Inc.

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# Teaching Reading Comprehension via Literature Study: Basis for Workbook on Literatures of the Philippines

## Elsie L. Dajao College of Arts and Sciences

#### Abstract

Reading is important not only in the laymen's lives but most importantly in the lives of the people in the academe especially that of the students.

This paper aims to point out the main Reading Comprehension strategies effective to college students during their daily learning academic (literature class) tasks and their major difficulties in acquiring the skill. It also focuses on the challenges that teachers and college students face with regard to reading comprehension.

#### 1. Introduction

College instructors are increasing and so does their increasing encounters with students who are unprepared for the rigors of academic life. Some students are unable to cope with the large amount of reading required in certain disciplines. Others have difficulty with the vocabulary terms. Another is students' lack of interest in indifference to or rejection of reading. Studies based on reading habits have particularly focused on the importance of the promotion of specific strategies to: capitalize on their interests, make reading materials accessible, build a conducive environment, allow time to read in school, provide significant adult models and use motivational techniques (Clary, 1991).

While there is much discussion, little of substance has been done to directly remediate or deal with these issues. The researcher has

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endeavored to both examine this difficulty, and attempted some remedies by way different strategies with focus on literature study.

When college students in literature classes were given a text to read for the norm-referenced reading, evaluation results later revealed a surprising truth: many of them are reading at a lower level than expected. This reality reflects a fact that is so basic that it is often overlooked in discussions of ways to improve the quality of reading of the college's students. Some of our college students do not read enough to read well.

In the everyday classroom, academic reading tasks require students to read textual materials for assigned purposes. These purposes can be quite varied yet interrelated. For example, they can include goals such as understanding portions of a text as part of a homework reading assignment, studying a text for an examination, answering assigned questions based on a text, reading for the purpose of writing a report, and so forth (Anderson, 1999).

Students need first to acquire a sense of how reading is a transaction between the reader and the author. They need to understand what it means to become partners with the authors they read, with other students, and with a teacher in a sense-making community tied to the academic assignments at hand. In addition, Rose (1999) cites the need for educators to retain concern for the acquisition of specific linguistic and reasoning skills required by students to comprehend texts in order to complete academic work.

One basic point is that reading comprehension involves the construction or semantic interpretation of propositions emanating from a text as it is read word by word. McLaughlin (1988) describes the rich interplay of word decoding, syntactic, semantic, and discourse processing skills required to comprehend texts. He emphasizes the importance of accurate, automated word decoding skills in reading in a second language. Advanced skill in reading comprehension requires

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that language learners concentrate their attention on building and refining key ideas as they emerge in a text, and this entails fluent, automated recognition of words in order to ascribe them meaning or to interpret their grammatical function.

In the early years, great teachers led the way and exerted efforts to discover, develop and employ sound techniques to teach students effective reading. Today, with students' reading skills deteriorating, there are still great teachers who continue to experiment with innovative curricula to uplift relevant modern reading methods. These mentors inspire the researcher to conduct this study.

Just like teachers in any other colleges or universities in the country, mentors in La Salle University, Ozamiz City are also faced with problems on how they can effectively pose challenge to students so they can effectively read and comprehend a text or two in their chosen field of study. A perennial problem it is, which alarms college teachers grooming future professionals of the country.

Over the years, reading has been considered an activity characterized by the translation of symbols, or letters, into words and sentences that communicate information and mean something to the reader (Applebee 1999). The goals of reading are wide-ranging, but essentially the reader aims to understand the meaning of a written text, evaluate its significance, and use what he or she has read to enhance his or her knowledge, effectiveness, or pleasure (Beach, 1999).

Teachers are fully aware that language and thought are closely interlinked. Hence, reading is, indeed, one of the mind's most complex achievements. It involves sophisticated cognitive and linguistic skills and has been described by the cognitive psychologist Ulrich Neisser (2009) as "externally guided thinking." As a reader reads a text, he or she interprets the content while being simultaneously guided and influenced by the author.

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In literate societies, the ability to read and interpret texts has rewarded readers with higher social status and greater economic benefits than those who are illiterate. Even when in a minority, literate people usually have better access to positions of social, political, and religious power. Comparisons between literate and non-literate social groups carried out by the social anthropologist Jack Goody have suggested that the development of literacy has affected the ways in which people conduct themselves, communicate, and think.

Briefly, Langer's (1999) research leads her to conclude that six features of instruction are interwoven in programs in which students succeed at a high rate: students learn skills and knowledge in multiple types of lessons; teachers integrate test preparation into classroom instruction; teachers make connections within and between classes and with students' lives; students learn the strategies for doing the work; students are taught and are expected to perform as generative thinkers; and classrooms foster cognitive collaboration. Langer notes that these 6 features of effective instruction characterize English/language arts classrooms in which "high literacy," which is a "deeper knowledge of the ways in which reading, writing, language, and content work together," and which transcends the traditional definition of "literacy" that is limited to basic (or survival level) reading and writing skills, is fostered.

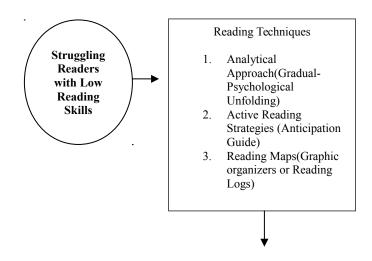
Research that focuses on the ways that the physical, social, and psychological concerns of today's adolescents are addressed in **contemporary young adult literature** (i.e., Carroll; Carroll and Gregg; Kaywell; Brown and Stephens). Carroll's (1997) study of literature for adolescents and young adults reveals that the interests and issues of concern of today's teens are reflected in contemporary texts, particularly fiction texts. Drawing on research by adolescent psychologists as a means of describing what the world looks like from the perspective of today's adolescents, Carroll then examined contemporary texts and found ample evidence that the topics identified as significant for today's adolescents are addressed in the literature that

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they read, including the following topics: teen poverty; sexual activity, teen pregnancy, and sexually transmitted diseases; gender orientation; drug abuse, including alcohol; abuse, crime, violence, and gangs; hopelessness, depression, and suicide; and thrill seeking and death.

These are not necessarily the topics that the teachers of today's adolescents were concerned with as teenagers; they are not topics that appeared frequently in texts written primarily for adolescent and young adult readers. However, because they are topics that draw the interest of today's teens, they should be included in the texts that are read and studied in school settings. Carroll and Gregg (2000) are currently conducting a national survey of middle and high school readers that is designed, in part, to determine what the interests of readers are at the turn of the century. The information gleaned from adolescents should assist high school and college teachers make good choices for literature assignments, because it will help them identify not only specific titles but also topic categories that will motivate students to become engaged as readers through intrinsic appeal to them. Preliminary results suggest that there are few matches between the texts that students identify as their favorites, or the topics that appeal to them, and those they are assigned most frequently in classrooms (Applebee, 1999).

122 Vol. 14 No. 5 To follow is the schema of the study;



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#### Statement of the Problem

This study attempts to find out how reading techniques through literature help college students gain skills in reading comprehension.

Specifically, this research work intends to arrive at answers to the following:

- 1. What is the level of performance of students in terms of their reading skills?
- 2. Do the analytical approach or gradual psychological unfolding, active reading strategies like anticipation guide and reading maps such as graphic organizers or reading logs help improve the students' reading skills?
- 3. What workbook on Literatures of the Philippines can then be designed?

## Significance of the Study

Teachers' vital role in helping literature students to read with effective comprehension poses great deal of consideration. It is in this light that the researcher considers the gravity of the issue and has made this study important to the following:

To the teachers in the content-area, that they may also become active partners of English language teachers in helping the students improve their reading comprehension through the texts used in their areas.

To the English language teaching professionals, that they may consistently challenge the reading capabilities of students in their classes in grammar and speech classes too.

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To the school administrators, that the result of this research may urge them to strongly support the faculty development programs geared toward the enhancement of both the teachers' and students' proficiency in the use of the English language.

**Finally, to the students themselves**, that they may realize the value of reading comprehension in their own chosen field of study.

## 2. Methodology

This study used a combination of descriptive and quasiexperimental method. Oral interviews were conducted and so as not to embarrass struggling readers with low reading skills in the two literature classes. All the 82 students were allowed to undergo the interview. The schedule for the academic consultation hour was used for this interview. Then, pertinent college admissions test data and educational survey data at LSU guidance center of the student concerned were reviewed.

According to the goals of this specific research topic the literary graphic organizers were introduced and a 15-item battery of questions concerning the major reading/comprehension strategies which students may apply during their learning activities was constructed.

All the items from this battery of questions used in interview asked the students to rate their performance (frequency in the use of each presented strategy) on a 5 point Lickert scale (1 – never; 2 rarely; 3 - sometimes; 4 - very often; 5 - always).

The purpose and relevance of the interview were explained to the students who were also assured that their responses would remain confidential and that only the researcher would have access to them.

To follow is the battery of questions ask	ed (Refer to Appendix C)			
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An experiment was also conducted beginning of the semester where one class was required to do assignments in terms of outlining the genre of literature. This class was asked to define all new vocabulary words and terms and to describe the most important information. Further, they were required to explain new concepts, terms, ideas and comment on their relevance. They were also asked to indicate how this would apply to their particular course subject area for example, math, science, music, art etc.

The second class was asked to outline each chapter and were free to employ whatever illustration or schemata they desired and had to do the same assignments however they were asked to classify the most important information and compare the various genres of literature.

In addition, some supplementary information was procured that was thought to be relevant. The number of classes a student was taking, the number of hours working outside of school (either part time or full time jobs) and the number of children that the student was responsible for was also requested. It was thought that these outside duties and responsibilities may have a significant bearing on student success. In addition, college students often have a number of outside responsibilities such as children, part time and full time employment, and other classes which may interfere with optimal reading comprehension functioning. This aspect was also explored as part of this study.

#### 3. Results and Discussions

Table 1: The 15-Item Questionnaire (Compounded)

Content	Option1	Option 2	Option 3	Option 4	Option 5
	Never	Rarely	Sometimes	Very	Always
		_		Often	
A. Reading Habits					
1. I read for reasons					

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related to my academic activities	0%	1%	1%	2%	37%
2. I read as a hobby	0%	1%	2%	5 %	39%
B. Students' Ability					
to Understand the					
Text					
1. I understand the					
texts I read	0%	0% 4.9%	2% 1.5 %	3%	40%
2.I understand texts	4.9 %	4.9%	1.5 %	23.8 %	45.5 %
written in English					
C. Specific Strategies	Used in the	Process of C	Comprehensio	on	
1. I use contexts to					
find out the meaning				41.3 %	26.0 %
of a word/ expression					
Table 1, continued.					
2. I use dictionaries	10 %	5 %	20 %	29 .5 %	35.5 %
and encyclopedias					
3.When I do not					
understand an	0%	10 %	2 %	41.3 %	47 %
expression or					
sentence, I read it					
again					
4. I solve my doubts/					
exchange opinion					
with my teacher	17.5. %	22.5 %	1%	41.3 %	1%
about the books/					
texts I read					
D. Level of Competen	ce in Readii	ng Compreh	ension		
1. I concentrate					
while reading	0%	0%	0%	0%	66 %
2. I assimilate the					53. %
new vocabulary					
3. I find the key	2.0/		100/	100/	• • • • •
word of a text	3 %	5 %	10 %	10 %	20 %
4. I can point out the	20/	0.07	50/	1.50/	<b>5</b> 0.0/
main ideas of the text	2 %	8 %	5%	15%	70 %
5. I can separate	50/	10.07	100/	12.07	(2.0)
what	5%	10 %	10%	12 %	63 %
is important in a text					
from what is not					

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important					
E. Role of Reading Comprehension in Higher Education					
1. I memorize contents through reading	1 %	5 %	20 %	25 %	313 %
2. I quote from the books I read	20 %	21 %	3 %	10 %	17.5 %

### A. The level of performance of students in terms of their reading skills

The items from the questionnaire were grouped together according to their content. The first two items are connected with the reading habits of the students I read for reasons related to my academic activities (item 1) and I read as a hobby (item 2). The results showed that students read more often for reasons connected with their academic activities. However, it must be pointed out that reading as a hobby had high levels of response by the student, very close to those of the item which refers to reading as being motivated by academic reasons.

Items 4 and 5 were associated because both relate to the students' ability to understand the texts they read (item 1- I understand the texts I read and item 2 - I understand texts written in English). From the results it can be concluded that the majority of the students understood very often or even always the texts they read. However, when it came to the understanding of texts in a foreign language (English) the figures clearly showed that almost half of the students chose the two higher options (45.5%). A visible contrast that clearly defined the two items was the fact that about 23.8% indicated that they never or rarely understood texts in English when only 4.9% indicated those frequency options for understanding texts in a general way.

The specific strategies in the process of comprehension for dealing with difficulties were presented in four specific items: Do you use context to find out the meaning of a word/expression (item 6), Do you use dictionaries and encyclopedias (item 7), When you do not understand an expression/sentence, do you read it again (item 9), Do

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you solve your doubts/ exchange opinions with your teachers about the books/texts you read (item 13). From these four items, the ones with the higher level were the ones related to the usage of context and rereading, both with 41.3% of the subjects choosing option four (very often). Between these two strategies some differences can be found given that the first has 26.0% and the second 35.5% in option five (always). This meant rereading was the main strategy used by the students among the ones presented in the questionnaire. The role of dictionaries/encyclopedias in the subjects' learning and comprehension activities was characterized by values which indicated that there was about the same number of choices in items 3 and 4 (about 29%). This central tendency was corroborated by the fact that also about the same levels of choice are situated in a mean of 19% in options 2 and 5. The strategy with the lowest level of proficiency by the subjects was the one which implies the interaction with teachers to solve doubts or to exchange opinions about texts. In fact, option 2 (rarely) had 44.5% of the subjects' choices, which was reinforced by the 17.5% of option 1 (never).

Associated with the level of competence in reading/comprehension were five items: Do you concentrate while reading (item 3). Do you assimilate the new vocabulary (item 8). Do you find the key words of a text (item 10), Can you point out the main ideas of a text (item 11), Can you separate what is important in a text from what is not important (item 12). In a general way, all these items asked in the interview presented high levels of usage situated in choice 4 with levels around 40%. The item with the highest levels was the one of pointing out the main ideas of a text (options 4 and 5 made about 70%) followed by more specific items which had to do with concentration during reading (options 4 and 5 made about 66%), the separation of what was important in a text (options 4 and 5 made about 63%) and with assimilation of vocabulary (options 4 and 5 made at about 53.8%). The item with a less expressive result, was the detection of keywords, was also the more specific item of this group of competences (option 3 had almost half of the choices). Finally, the

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results of two items were studied. These were connected with the role of Reading and Comprehension in higher education study habits and academic performance: I memorize contents through reading (item 14); I quote from the books I read (item 15).

This group put together two items with distinct natures and implications and therefore with different results. The memorization of the contents showed a strong intermediate tendency (almost half of the choices -45.3%) supported by a 31.3% level in option 4.

About the quotation from texts results indicated that more than half of the subjects never or rarely had developed this activity.

As far as the experiment on the two sections of the researcher's literature classes was concerned, there was no significant increase in their answers to the questions.

In fact, there was a decrease in some instances. This was attributed to a fatigue factor at the end of the semester. In addition, there were small sample sizes and some groups lost a few students due to attrition

B. Analytical approach or gradual psychological unfolding, active reading strategies like anticipation guide and reading maps such as graphic organizers or reading logs to help improve the students' reading skills.

An increased performance has been found out. When the students especially the **struggling r**eaders were again asked to answer the questions they performed during the beginning of the semester this time using the reading comprehension strategies. In an interview, students said that "if the literature teacher had to be with them as they uncover the literary piece using the analytical approach or gradual-psychological unfolding if not the use of various graphic organizers, they can be performing well. Also, they benefited from their

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classmates as the questions asked gradually unfolded from literal to analytical approach and much more so if illustrations via graphic organizers were employed.

The strategy, reciprocal teaching or active reading strategy helps produce active readers. Teacher and students worked together in small groups with the teacher initially modeling a strategy and then leading students to become the "teacher" and teach the strategy. Four strategies taught in this way to help students monitor their understanding and learning of literary selections are;

- 1. Devising questions about the text (self-questioning),
- 2. Summarizing
- 3. Predicting what's going to happen next in the text, and 4 clarifying or resolving inconsistencies. In reciprocal teaching, students combine multiple strategies by predicting and confirming text meaning, asking questions when reading, clarifying vocabulary or concepts that are poorly understood, and summarizing text meaning.

The students were also asked to fill in the anticipation guide of a chosen literary piece. Refer to Appendix A for sample anticipation guide.

Majority of the respondents including the readers with low reading skills had a difficulty answering the anticipation guide on the Response before the Lesson column. However, there was an 85% positive response when they were asked to fill in the Response after Lesson column

Next, the researcher endeavored to discuss findings from a discussion followed on a variety of literary graphic organizers that sharpen students' understanding and comprehension among the LSU

literature respondents. The analysis of the output of their graphic organizer's results covered contextual factors, discourse processing, and word recognition factors related to their reading comprehension performance. A discussion of some important questions that need to be pursued in devising effective instruction and interventions based on what the research has revealed.

Another problem was a severe lack of autonomy by the students as readers in accomplishing the goals of their readings. This study presented activities for teaching reading comprehension, which, according to Anderson & Pearson (1984), fulfill two conditions that appear to be highly important for keeping students interested in their academic tasks: the use of their knowledge of the world and their active participation in learning. In this same field many other studies have tried to identify and explain the process of the activation of background knowledge, all having the schema on theoretic model of reading as a working basis.

Also in the psycholinguistic field, Gardner & Smith (1987) have produced a body of research that suggests that some students may not enjoy reading because of a basic psychological problem: the lack of the ability to take the perspective of another person, which can affect their enjoyment of literature and their ability to understand what they have read. This relationship between the reader and the text has also been studied by Sager (1989), who states that reading demands a quality of engagement beyond the application of skills and processing of text and that students need not only to decode the text but also to think through it and experience it, anticipating, questioning, appreciating, puzzling over, confirming, being curious about, imagining.

Many Students aired during the interview that they loved to use graphic organizers in studying or unfolding literary pieces since GO help them form definitions of a variety of story types including fables, fairy tales, folktales, legends, myths, and tall tales, unravel without difficulty the selection because their comprehension was guided through the visual representations.

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The use of various graphic organizers (GO) also showed an evident readers' response among the student respondents. These assist teacher and students in identifying and classifying the major relationships between concepts, objectives and key vocabulary of the lesson through visual representation. Graphic and semantic organizers help students categorize or classify concepts in informational text using maps, webs, graphs, or charts.

Samples of graphic organizers to help improve the reading comprehension abilities of the La Salle University students as they uncover literary pieces in English 10 can be found in Appendix B.

# C. A workbook on Literatures of the Philippines to be designed for SY 2009-20010

Apart from the various reading comprehension techniques or strategies, researchers have discovered that there are basic techniques for college success, including active reading and note taking, offering strategies for strengthening literal and critical comprehension, improving vocabulary skills and developing reading flexibility, using methods for reading and learning from textbook assignments and for taking exams.

With the results of this research, the researcher, however, seeks to come up with a workbook on Literatures of the Philippines to commence on the First Semester 2009-2010. The workbook will be based on the curriculum pacing guide designed and adopted by the university so as to be aligned with the standards of learning of the students in this institution.

# 4. Summary, Conclusion, and Recommendations

Based on the findings of the study, the following conclusions are drawn:

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- 1. Comprehension monitoring helps students know what they understand or do not understand when reading texts. It also helps them use "fix-up" strategies such as re-reading for a particular purpose or adjusting reading speed as related to text difficulty
- 2. Graphic and semantic organizers help students categorize or classify concepts in informational text using maps, webs, graphs, or charts.
- 3. Answering a variety of questions (including literal, inferential and critical/application types) during pre-reading, reading, and post-reading provides students with a purpose and focus for reading.
- 4. Asking different types of questions about text meaning during pre-reading, reading, and post-reading activities improves students' active engagement with text.
- 5. Recognizing story structure helps students understand how characters, events, and settings contribute to plot.
- 6. Summarizing main ideas and key details is critical to demonstrating understanding of the author's message.

In combination, these six strategies have been shown to be particularly beneficial when students work cooperatively to construct the meaning of text, as is the case with multiple strategy instruction, or reciprocal teaching.

### Recommendations

On the basis of the findings and conclusions, the following are recommended.

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- 1. That teachers must carefully plan guided comprehension activities especially with the use of graphic organizers and they must explain to students that their requirement does not aim to continually force them to process information, submit papers and the like since this may bring forth a negative effect on students. If other instructors are lax or lenient, students may harbor ill feelings toward instructors that require additional work.
- 2. That teachers not only in literature but in other content areas, must apply proper scaffolding of students' interactions with the texts
- 3. In some classes it may be important to use weekly quizzes to enhance vocabulary growth or technical terms used in the content area to facilitate comprehension of topics discussed.

#### List of References

- 2002. Agravante, J. Speech Communication. UP Press.
- 1999. Anderson, R. A Schematic View of Basic Process of Reading. Cambridge University Press.
- 2002. Antunez, Beth. <u>Implementing Reading First with English Learners</u>. Washington D.C.
- 1996. Bautista, Ma. Lourdes. Readings in Philippine Sociolinguistics. DLSU Press.
- 2002. Buenaventura, V. Linguistic Society of the Philippines. University of the Philippines Press.

November-December 2009 Vol. 14 No. 5

- 1989. Glover, J.A. The "testing" phenomenon: Not gone but nearly forgotten. Block, E. See How They Read. Quarterly. Journal of Psychology 81-3, 392-399
- 1992. Hadley, Alice. Teaching Language in Context. Nelson Publishing
- 1987. Kucer, S.B. The Cognitive Base of Reading & Writing. Martin's Press.
- 1998. Lewis, A.C. Higher education act takes on teacher preparation. (Washington Commentary) Phi Kappan 8, 40,
- 1999. Nunan, D. Second Language Teaching and Learning. Cambridge University Press.
- 1993. Omaggio, M.A. Teaching Language in Context. Boston.
- 1999. Poole, Stuart. An Introduction to Linguistics. Macmillan Press.
- 1999. Rose, L. & Gallup, A. Attitude Toward the Public Schools. The 30th Annual Phi Delta Kappan Gallup Poll of the Public's. Phi Delta Kappan 80, 1, 41-56.
- 1987. Royer, J.M. Abramowitz, W.A. and Sinatra, G.A. Using entering reading comprehension performance predictor of performance in college classes. Journal of Educational Psychology 79, 1, 19-26
- 1994. Ruddell, R.B. Theoritical Models and Process of Reading. Newark.
- 1988. Samuels, S.J. and Kamil. Models of the Reading Process. Eskey.
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- 1999. Stanovich, K.E. Reading Fluency. Dubin.
- 1993. Stroller, F. Developing Low-Level reading Skills. Boston.
- 1998. Tierney, R.J and Pearson. Learning to Learn From Text. A Framework for Improving Classroom Practice.
- 2006. English Teaching Forum. Applying Current Approaches to Teaching of Reading.
- 2000. Teaching Children to Read. National Institute of Child Health and Development.
- 2001. The Word by Word Phonics Program. The No Child Left Behind Act.
- 1991. Flood et.al. Handbook of Research on Teaching the English Language Arts. Macmillan Publishing House.
- 2007. Developmental/ Reading Comprehension. Encarta Dictionary. Uploaded from: http://www.psy.pdxedu/Psi Café/ Areas/.
- 1999. McLaughlin. Theories of Second-Language Learning. London: Edward Arnold
- 1999. Applebee, J.A. From Reader to Reading Teacher: Issues and Strategies for second Language classrooms. New York: Cambridge University Press.
- 1999. Beach, R. Reading Comprehension: Self-Monitoring Strategies to Develop Independent Readers. New York Scholastic Professional Books.

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- 2009. Neisser P. Reading and the teaching of L2 Reading. TESOL Journal Vol. 11 No. 1.
- 1999. Langer. Literary Texts in the Classroom: A Discourse Model. The Modern Language Journal

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## Appendix A

## Anticipation/Reaction Guide

**Instruction:** Respond to each statement twice: once before the lesson and again after reading it.

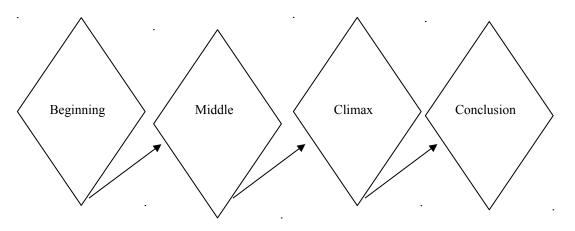
- Write A if you agree with the statement
- Write **B** if you disagree with the statement

Response Before Lesson	Topic: Biag ni Lam-Ang	Response After Lesson	
	1. Lam-ang was born already endowed with the power of speech and with supernatural strength.		
	2. It was okay for Lam-Ang to follow the practice of the group even if it would mean his life.		
	3. Most of the suitors of Ines were rich and powerful so they captured Ines' love.		
	4. As a result of Lam-Ang's, loyalty to his pets, he died.		
	5. The epic is an example of a Moro epic.		

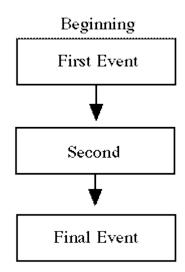
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# Appendix B

# Story Plot Flow Map



# Chain of Events



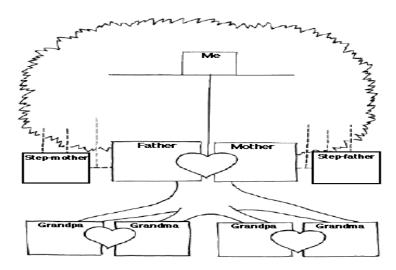
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# Continuum

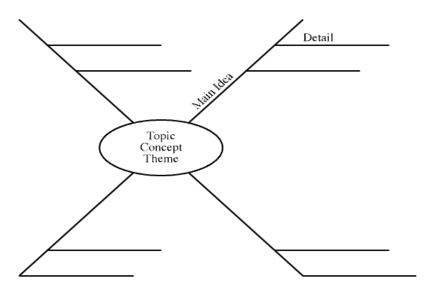


# Compare/Contrast



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# Spider Map



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## **Appendix C**

## Battery of Questions

- 1. Do you read for reasons related to your academic activities?
- 2. Do you read as a hobby?
- 3. Can you concentrate while reading?
- 4. Do you understand the texts you read?
- 5. Do you understand texts written in English?
- 6. Do you use context to find out the meaning of a word/expression?
- 7. Do you use dictionaries and encyclopedias?
- 8. Do you assimilate the new vocabulary learned from your readings?
- 9. When you don't understand an expression/sentence do you read it again?
- 10. Can you find the key words of a text?
- 11. Can you point out the main ideas of a text?
- 12. Can you separate what is important in a text from what is not important?
- 13. Do you solve your doubts/ exchange opinions with your teachers about /texts you read?
- 14. Do you memorize contents through reading?
- 15. Do you quote from the books you read?

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