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# TITLE PAG

**THE DEVELOPMENT OF GUIDANCE AND COUNSELING SERVICE MANAGEMENT INFORMATION SYSTEM**

A Research

Presented to the Faculty of the

Polytechnic University of the Philippines

Quezon City Branch

In Partial Fulfillment of the Requirements for the Degree

Bachelor of Science in Information Technology

By

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December 2017

# CERTIFICATION

This thesis/dissertation, ***THE DEVELOPMENT OF GUIDANCE AND COUNSELING SERVICE MANAGEMENT INFORMATION SYSTEM*** prepared and submitted by CRISTIAN BALATBAT and RHEA F. RIOS in partial fulfilment of the requirements for the degree of Bachelor of Science in Information Technology has been examined and recommended for Oral Examination.

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To their **FRIENDS and CLASSMATES** that shares ideas and thoughts to the study;

And above all is **GOD**, the who provides guidance and strength to the researcher in compiling the research.

**C.O.B & R.F.R**

**CERTIFICATION OF ORIGINALITY**

This is to certify that the research work presented in this thesis entitled ***THE DEVELOPMENT OF GUIDANCE AND COUNSELING SERVICE MANAGEMENT INFORMATION SYSTEM*** *for the degree of Bachelor of Science in Information Technology* at the Polytechnic University of the Philippines, Quezon City embodies the result of original and scholarly work carried out by the undersigned. This thesis does not contain words or ideas taken from published sources or written works that have been accepted as basis for the award of a degree from any higher education institution, except where proper referencing and acknowledgement were made.

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# ABSTRACT

Title : ***THE DEVELOPMENT OF GUIDANCE AND COUNSELING***

***SERVICE MANAGEMENT INFORMATION SYSTEM***

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Degree : Bachelor of Science in Information Technology

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In the guidance and counseling services office, the main challenge for the guidance counselor is retrieving of data and other files of the students and the remarks of the previous counselor. It is important to keep track of every students consultations, remarks and sanctions to avoid duplication and other problems.

This study aimed to help the guidance counselors and the students of Polytechnic University of the Philippines in tracking and monitoring each students' records. This study was made because of the difficulty in keeping records of the students for a huge university such as Polytechnic University of the Philippines, with hundreds of students admitted every year. The researchers are in favor of making a management information system that will make both the office and the students' work easier.

As far as the researchers can tell the need for a system for guidance and counseling is necessary due to the process of the school is integrated with the guidance counseling such as auditing the requirements of the students and alumni and data organization there is a need for a paperless environment as well.

A management information system in an office is truly a necessity. The system is capable of monitoring, managing and organizing student records related to the guidance. It would make the office and the students' work more efficient and convenient.

Keywords: Polytechnic University of the Philippines, Bachelor of Science in Information Technology, Guidance and Counseling Services, Management System, Guidance

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# Chapter 1

**THE PROBLEM AND ITS SETTING**

## Introduction

It is a necessity that in every organization, company or school consist an entity of a departmental of health and services. This is intended for checking and inspecting each condition physically, mentally or socially before entering such companies or universities.

Furthermore, CHED mandated to promote quality education through enhanced policies and guidelines on Student Affairs and Services; under such services is the Guidance and Counseling. As part of this entity, the Guidance and Counseling Services are responsible for students' well rounded development primarily helping students to utilize their potentialities to the fullest (CMO No.09-s2013). Among of its functions includes counseling, psychological testing, learning and study orientation, placement, referral, consultation, and individual inventory and analysis. (R.A. No. 9558, Sec. 3-also known as Guidance and Counseling Act ).

Individual Inventory Analysis as a guidance service aims to gather, maintain and record up to date pertinent information from each of the individual in the school; at least it includes student's personal data sheet, counseling case note , excuse letters and other significant documents. The information usually stored in the cumulative folder or for other school electronics files or data base, the data for each student are accumulated and kept throughout the student's stay. It's safe keeping generally based on school policies. It aims systematically collects, monitors, evaluates and interprets data to identify the characteristics and potential of every client (UST Guidance and Counseling Center Reviewer, 2016). It is important for building up the students’ personalities and implementing proper diagnoses, predicting progress of behaviors, accurate placement and program evaluation towards an improved academic performance.

For a huge university such as, Polytechnic University of the Philippines, with hundreds of students admitted every year, the maintenance and processing of records might be a huge challenged for the said office. Also, information and data are kept confidential especially that it caters sensitive personal issues of each students such that, pertinent information must be precise in term of recording, processing as well as retrieving previous issues and appointment details accurately.

## Theoretical Framework

**Systems Theory** in developing a system, we should know or understand-fully that real systems are open to, and interact with, their properties or elements. This theory focuses on the arrangement of and relations between the parts which connect them into a whole functioning system.

**Technology-Organization-Environment Framework (TOE),** this theory states about the three elements that influences the way an organization or firm sees the searches for, adopts for, and need for new technology. These elements are technological context, the organizational context, and the environmental context

**Perceived Usefulness** this theory states about the degree of to which a person believes that using a particular system would enhance his/her job performance. This will be used in the development of the system and the analysis of the gathered data from the methodology.

## Conceptual Framework

1. Provide a survey questionnaire.

2. Provide an interview questionnaire for guidance counselors.

3. Look for the Theoretical Framework.

4. Research the related Literature, Studies, and systems.

1. Conduct a survey

2. Review related literatures and studies.

3. Conduct an interview

4. Apply Statistical treatments.

5. Interpret the gathered data.

1. Elaborate the assessment of the respondents about the guidance and counseling services efficiency, accuracy and reliability.

2. Determine the problems faced by the counselors.

3. System Prototype

Feedback

**INPUT**

**PROCESS**

**OUTPUT**

**Figure 1**

**Conceptual Framework for The Development of Guidance and Counseling Management Information System**

The researchers provide a diagram for the conceptual framework of this study on a systematic information approach.

## Statement of the Problem

The study entitled “The Development of Guidance and Counseling Management Information System” will determine the perception of the students and Guidance Counselors alike, regarding the possibility of developing a management information system to be used by the Guidance and Counseling Office in Polytechnic University of the Philippines, Quezon City Branch. Specifically, it will aim to answer the following sub-questions:

1. In the questionnaire given, how often the students visit the Guidance Office?
2. What are the assessments of the students to the Guidance and Counseling Services of the Polytechnic University of the Philippines Quezon City Branch in terms of the following:
   1. Efficiency
   2. Accuracy
   3. Reliability
3. Do the students prefer having a management information system for the Guidance and Counseling Office?
4. In the interview, do the guidance counselors want to have a management information system for the Guidance and Counseling Office?

## Objectives of the study

This study present the following objectives:

1. To assess the effectiveness of the guidance and counseling services among students.
2. To determine the problems encountered and inconvenience faced by the Guidance Counselors in their offices.
3. To fully understand the functionality and process of the guidance and counseling services.
4. To ascertain the needs and wants of the Guidance Counselors in the system that will be develop.
5. To identify the preferences of students and Guidance Counselors when it comes to the development of a management system to be used by the Guidance and Counseling Office.

## Hypothesis

H0- The researchers presumed that the students don’t want more efficient, accurate and reliable transaction in the Guidance and Counseling Services.

H1- The researchers presumed that the students want more efficient, accurate and reliable transaction in the Guidance and Counseling Services.

H0- The researchers presumed that the Guidance Counselors of different schools don’t encountered problems and inconvenience in terms of manual data recording and compilation.

H1- The researchers presumed that the Guidance Counselors of different schools encountered problems and inconvenience in terms of manual data recording and compilation.

H0- The researchers presumed that the Guidance Counselors and students don’t find it helpful to have a Guidance and Counseling Management Information System.

H1- The researchers presumed that the Guidance Counselors and students find it helpful to have a Guidance and Counseling Management Information System.

## Scope and Limitations of the Study

This research mainly focuses on the development of The Guidance and Counseling Management Information System. The research was conducted in all universities and colleges in District 2, Quezon City. The universities and colleges are, Mary the Queen College, National College of Business and Arts, and Polytechnic University of the Philippines, Quezon City Branch. The respondents of the research are specifically University’s/College’s Guidance Counselors and Polytechnic University of Philippines, Quezon City Branch enrolled college students. Researchers used conventional paper survey, which all college student respondents were requested to answer and conducted an interview to all the Guidance Counselors.

The research topic primarily focused on the efficiency, accuracy, and reliability of the guidance and counseling services to the students of the Polytechnic University of the Philippines, Quezon City Branch and the transaction or management process of the Guidance and Counseling Office for the development of Guidance and Counseling Management Information System.

## Significance of the Study

This study deemed significant contribution and benefits the following:

**For Guidance Counselors**– this study will help them for their transactions and management processes. This research will help them in terms of data handling, reports and profile updating.

**For Programmers and Developers** – the study will be a guide in developing an Information Management System with or without beneficiaries.

**For Schools’ Guidance and Counseling Offices** – this research will give convenience and advantage to the guidance office for it will help in a more systematic and effective management of the guidance office.

**For Future Researchers** – this will give additional information for students who are planning to develop a system for a guidance office of their choice. The process and studies will help them in developing their own study and management system.

## Definition of Terms

For the purpose of clarity and understanding, the following terms were defined:

**Counseling.** The process that occurs when a client and counselor set aside time in order to explore difficulties which may include the stressful or emotional feelings of the client.

The act of helping the client to see things more clearly, possibly from a different view-point. This can enable the client to focus on feelings, experiences or behavior, with a goal to facilitating positive change.

**Database.** Database is a collection of [information](http://searchsqlserver.techtarget.com/definition/information) that is organized so that it can be easily accessed, managed and updated.

A set of data grouped together in one location in (or accessible by) a[computer](http://www.dictionary.com/browse/computer). A computerized database has been likened to an electronic filingcabinet of information arranged for easy access or for a specific purpose.

**Profiling.** Profiling aims to systematically collects, evaluates and interprets data to identify characteristics and potential of every client

**Guidance Services**. Educational services designed and implemented for the sole purpose of helping learners develop healthy and positive manner to fully maturity as a person and to develop a person he/she is capable of becoming.

**Individual Inventory Analysis**. Also called Individual Analysis; comprise of all information gathered about each individual in school usually stored in in the Cumulative folder or for other schools in electronic files or data base.

# Chapter 2

**REVIEWS OF RELATED LITERATURES AND STUDIES**

This chapter provides support in details and information to promote understanding in the nature of the study motivated in this topic. It contains literatures and studies shown by different researchers and authors who worked on similar topic conducted in this study.

## Counseling Services

According to Amber Lauren on the article Present Status of Guidance in the Philippines 2014,the author tells the state of the Guidance and Counseling in the current affairs. The author states in a list the reasons why the Guidance and Counseling is need now more than ever because the need for caring for mental health it has expanded from its previous environment to help the student with their problems and well being.

The following article also states the current code of Guidance and Counseling that we should follow during the current times and its implications on the 21st century she listed several of reasons for its establishment such as enthusiasm for student to look for work and improvement of study habits and such.

According to Amber Ott the article WhyGuidance Counseling Needs to Change last 2010, meetings are impersonal, perfunctory, and more common than you might think.

The article is about a recent survey in the need of improvement of the system within the guidance process to accumulate students can handle and manage their problems well.

According to Lee, Coutland C. on the study A Conceptual Framework for Culturally Competent Career Counseling Practice 2012 talks about the condition of counseling for cultural background of the students. It tells about how counseling these days becomes challenging as time goes due to cultural differences. The study shows the difficulty of guidance counseling due to the cultural origins of the students and the cultural origins.

According to Dr. Herman M. Lagon in the article Guidance and Counseling in the Philippines: A Journey to Maturity last November 2016, another article that tells the improvement of the Philippine Guidance Counseling during its establishment

Dr. Herman M. Lagon In fact, a century ago, guidance and counseling as it is now practiced and accepted, has never been conceived yet until Dr. Sinforoso Padilla started a Psychological Clinic in Manila in 1963 This is 23 years after the Father of Guidance Frank Parson published his Choosing a Vocation manuscript in Boston University, USA, and less than a century after the Father of Psychology Wilhelm Maximilian Wundt founded his scientific psychology laboratory in Leipzig, Germany.

This article tells the foundation of Philippine Guidance and Counseling by adapting the Vocation manuscript thus we have created a system for Guidance and Counseling Office. By adapting the manuscript we have created a Guidance Counseling System that is being used today

According to Ma. Teresa G. Tuason, et. al. on the article Counseling in the Philippines: Past, Present, and Future last June 2012, tells the brief history of the Guidance and Counseling in the Philippines and the improvement of the guidance and counseling in the school. The authors also tell the history of the guidance and counseling that the Filipinos adapted since its establishment and it adaptation in the Philippines.

The article also shows the influence of the American Guidance Guidelines and Structure based on their culture and heritage which they in turn created a Guidance and Counseling System in the U.S that we apply here in the Philippines. Originally used in the working environment rather than a school environment. The Filipinos have adapted it to a university environment.

## School Counseling Services

In the study of Dr. Modoet. al. on Guidance and Counseling Services in Secondary School as Coping Strategy for Improved Academic Performance of Students in AkwaIbom State, Nigeria last 2013, focuses on the implementation of guidance counseling in Nigeria Sate as a Coping strategy. This involves supporting the student’s mental health and stress levels to maintain their academic structure. The article tells about implementing guidance counseling to Republic of Nigeria to promote the awareness and maintaining of mental Health issues of the students.

According to Samson Ombabaet. al. on the article School Career Guidance on Achieving National Manpower Development in Kenya last July 2014, focuses on using guidance and counseling in achieving development of manpower in Kenya by using the guidance. The article states about the role between the teachers, students, and the ICT knowledge. By following the Program for the ICT counseling students and teachers have a positive result with the experience of counseling. Therefore they can provide manpower for the country.

According to the article Current Developments in School Counseling in Japan last February 2010, the future development of school counseling is currently being considered. It also tells that, a school counseling and guidance committee in MEXT is contemplating future directions that counseling and guidance may take in schools. A counselor who have a licensed can remain at school. Without a national school counselor license, the development will be limited.

This tells the brief history of the development of the Japanese counseling in schools and using their MEXT system that they improve throughout the years of research.

This is the system they use up to today to guide their students to their wanted course with the full support of the schools guidance and council.

According to Deirdre Hughes, Bill Law, & Frans Meijers on the article New School for the Old School: Career Guidance and Counseling in Education last March 2017, it tells that, while ideas of career development focus attention on what career workers can bring to clients, ideas of career management speak of responses that clients make to all sources of influence.

The article context tells about changing and adapting the changes in the guidance and counseling process to promote improvement of the decisions and mental health.

They should be focused on the need of the students rather the employability of the students. In other words they should be focusing on the student’s preference.

According to Sonya Lorelle and Lorraine J. Guth on the article Establishing the School Counseling Profession in Bhutan: Reflections from the Field last 2013, counseling is a developing profession in the country of Bhutan, it tells that, National Board of Certified Counselors International is collaborating with leaders and counselors in order to help facilitate this development and provide training to prospective counselors.

The article states that there is a necessity to establish counseling for Bhutan school for the purpose of guiding and helping the students.

According to Jordan Friedman on the article The Challenges, Necessity, and Complexities of Guidance Counseling in Community College 2014, counselors should be more innovative in their approaches to guiding students. However, it could be difficult because of the limited resources.

The article tells on how to deal with the challenges the will be encountered during the period on the establishment of the guidance counseling.

According to Jean Johnson, Jon Rochkind and Amber Ott on their book Reimagining School: Special Topic / Why Guidance Counseling Needs to Change 2010, since the today’s generation of teachers focuses more on the improvement of young students to be the world’s future hopes, reformation of the guidance counseling services would be the best start.

## Counselors

On the article School Counselors: A Review of Contemporary Issues last December 2012, it tells that school counselor is facing a change in environment in terms of roles, responsibilities, students, administrative issues, and opportunities.

The article describes the challenges of being a Counselor and how has it changed in the past years since its establishment this will deal with the issues and current perspective of a guidance and counseling.

The article describes the challenges of being a counselor and how has it changed in the past few years.

According to Go Eun Na and MarteOstvik-de Wilde on the article The Role of School Counselors in Promoting and Implementing Internationalized Comprehensive Programs in K-12 Schools last 2015, professionals have worked to increase awareness of global issues in counseling and to provide opportunities for professional counselors to expand their knowledge and skills to best serve their domestic and international clients more thoroughly.

This tells about raising the awareness for the need of counseling across the globe and increasing the skills and knowledge for counseling.

With the cooperation of the various Counseling associations in America we can read their efforts in increasing the awareness for the need of guidance counseling in turn building relationships with other international organization.

According to Butch Hernandez on the article on the Guidance Counselors Serve A Higher Purpose, last 2015, the author states the importance of the guidance and counseling in the education industry and its implications during its implementations. He also discusses the role of the guidance counseling in high schools in assisting their student with regards to their decisions and the importance of the guidance and counseling as an institution in a high school environment and another fellow author and researcher Santa Maria herself stressed that Guidance and Career Counselors serve a higher purpose. She maintained that we all should see God in our work because we are in the people-caring business.

According to GoEun Na and Marte Ostvik-de Wilde on the article The Role of School Counselors in Promoting and Implementing Internationalized Comprehensive Programs in K–12 Schools 2015, as the U.S education kept on eyeing on the internalization of the educational system, the school counselors of the K-12 program and this goal should be aligned. This article pointed and explained different frameworks about the role of the counselor on this plans.

## Management Information System

According to Madiha Shah on the article Impact of Management Information Systems on School Administration last February 21 2014, in terms of data entry and collation’s efficiency and effectiveness the use of information technology in educational management has rapidly, rather than upon data transfer or analysis. The value of management information was recognized during its integration stages.

The article expresses the importance of information systems in school because of its organized structure and streamline process since this is the case it makes the various process within the school easier

With the establishment of system integration in the guidance and counseling we read about the improvement of their process and counseling skills.

According to Ukelere Winnefred on the study on Student Academic Information System; An Introduction to Relational Database and HTTP Server last October 2011,this research talks about on how to integrate the academic information within the Yaba College using a HTTP Server with Relational databases. The system helps the Yaba College to create an organized and efficient school by organizing and collecting data.

## Guidance System

According to Melinda M. Dela Pena-Bandalaria and Paula Jean Untalan on their research Web Based Student Guidance Information System last March 2012, this research is an Online Web Based Student Guidance Information System for the Marcelo H. Del Pilar National High School Guidance Office. The researchers encountered problems concerning data security in the current state of the client’s technology.

According to Melinda M. Dela Pena-Bandalaria and Chammy Pantaleon on their research TUP-T Guidance and Information System April 2017, the TUP-P Guidance and Information System help with tracking the sanctions and their attendance in their counseling sessions. This system provides an up-to-date and accurate record of students and will resolve the possibility of losing the information because it has database. It will track students' offenses and attendance. The system will also offer easily retrieval of records and generates report such as student’s information, disciplinary action records and attendance monitoring sheet information.

Elsa V.Isip and Melissa P. Picones of College of Information Technology Education research “Interactive Students’ Performance Monitoring System for Guidance and Counseling Center” 2008, the researchers wants to see if the system is feasible and if it would be beneficial to the Guidance and Counseling Office.

The Guidance and Counseling Center is currently experiencing a lot of difficulty in managing and monitoring the students’ guidance records as well as students’ academic performances. They store this information in individual folders and kept in a filing cabinet. All information such as the Individual Student Record, counseling forms, follow-up forms, and call slips, and academic records for probationary students is manually recorded. The Guidance Counselors cannot easily monitor the performance of the students. Problems in summary report generation as requested by the Deans’ offices and other offices are also encountered.

The system was created to assist with the work load of the current guidance system. Since there are a lot of work load during the enrollment and mid semester the need for a system to keep track of their records is a must for this is their permanent record in the school.

This study was designed to assist the Guidance and Counseling Officers to minimize the papers inside the office and to make the guidance and counseling easier and efficient with keeping track of the counseling.

## Technology

According to Ngozi M. Oraegbunam on the article Applying Information and Communication Technology in Counseling Practice last 2009,Information and Communication Technology as one of the new trends in Educational Sciences could be applied in counseling practice.

This article tells the implementation of ICT’s in Nigeria with the rise of internet connection in the state of Nigera there is a state of awareness in the need for ICT’s

According to Raimo Vuorinen, James P Sampson, and Jaana Kettunen on the article The Perceived Role of Technology in Career Guidance among Practitioners Who are Experienced Internet Users last October 1,2011, the increasing use of technology is placing new demands on career guidance practitioners. Practitioners now observe that the need for differentiated service delivery modes is more explicit due to varied levels of readiness in decision-making and ICT literacy.

The article tells the Importance of ICT skill and Literacy to coordinate with career counseling. Using this particular knowledge they realize that there is a need for a system for career counseling.

According to Müge Beidoğlu Atatürk et. al. on the article The Opinions of School Counselors on the Use of Information and Communication Technologies in School Counseling Practices: North Cyprus school last 2015,this study is about the advancement of the ICT especially in the field of guidance and counseling. The Research focuses on the experience of the couselors with the use of ICT in school. The Research says that there is no problem regarding the use of systems and it gave them satisfactory results.

## Career Guide Information System

According to Ojekudo Nathaniel Akpofure, Ph.D on the article Design and Implementation of a Career Guide Information System for Secondary School Leavers an Object Oriented Approach 2012, is focused on the Career Guide Information System (CGIS) The system is design to be accessible at all times using the internet as the form of connection between the user and the system. It is also catered to choose a career choice based on the perspective of the user. It is the study of applying the CGIS as a platform for career guidance for the students and subject choices. With the application of PHP programming and MySQL they have successfully uploaded their website.

## ICT

On Analysis of Guidance and ICT Competences Map as Tool Career Development 2012 discusses ICT as a tool to assist with career development along the student the goal of the system is to help with the guidance with regarding their career. Explains about devices use for guidance like Smartphone, chat, email and other forms of communication and by integrating and using the ICT knowledge we can create an efficient working environment.

According to G. Sarton on the article on The Impact of ICT on Psychological Testing: A Case Study of Turkish Higher Education last 2014, tells the effect of ICT integration in the Turkish Higher Education. It states that there is a positive effect in using ICT knowledge with regards to Psychological testing and counseling.

According to James P. Sampson, Jr. and Osborn on the study Using Information and Communication Technology in Delivering Career Interventions last February 2014, the research states the user of ICTs as the medium for guidance and counseling. This article and lecture tells the effect and importance of ICT in today’s modern world such as social media, mobile phones and Information System.

According to Lorelei R. Vinluan on the articleThe Use of ICT in School Guidance: Attitudes and Practices of Guidance Counselors in Metro Manila, the Philippines last March 2011,this article is about the respond and awareness of Guidance Counselors in Metro Manila in ICT of terms of their work.

In M. Dela Pena-Bandalaria, Elin del Rosario, Julian del Rosario, MirroNieva, Tiara Tan and Marivic Tangkeko research the Collaborate IT: A CCS IT Thesis Portal with Electronic Document Management System 2016,this functions as an archive for the thesis so that they will be preserved properly.

This Management System for the Information Technology Department under the College of Computer Studies of De La Salle University - Manila. The system covers the entire thesis process as well as the document management of the different thesis documents. The main objective of this system is to provide a portal that can help better track and accomplish the thesis cycle.

The goal of the system is to create the records to improve the system to the electronic age and to create an archive within university.

## History of Guidance

According to Ian Dwight H. Sabellina in his lecture History of Guidance in Philippines last February 2014, the improvement of the Philippine Guidance and Counseling during the period of 1925 under the tillage of Dr. Sinforoso Padilla. Based on his studies on the works of the Vocation manuscript and the structure of Wilhelm Maximilian Wundt in Germany.

This article tell the history of Guidance and Counseling throughout the Philippines due to the efforts of Dr. Sinforoso Padilla when he established the Psychological Clinic in the University of Philippines we have adapted the system that we use in schools in the Philippines based on the structure provided by Dr. Sinforoso Padilla.

The results showed that the Counselors had a positive attitude to the use of ICT in guidance but also needs further training.

## Issues in Guidance

According to Reynante S. Tagum on the study on Current issues in Guidance and Counseling in the Philippines 2011**,** the majority of adults and youth in the Philippines are experiencing depression and leads to committing suicide due to the lack of counseling from parents and other authorized counselors.

**General Systems**

According to Noemi P. Reyes’s research Monitoring the Students Discipline through the Implementation of LAN – Based Information System for College of Information and Communications Technology July 2015,this system will provide a solution in data presentation, record keeping and data processing. This system uses LAN connection this means that the system is integrate through a modem that has an intranet capability made for the College of Information and Communications Technology Bulacan State University.

This system provides assistance in student support and counseling during their stay in the college and accessible anywhere in the campus as long as they meet the hardware requirements and credentials.

In the research and system Student Attendance Monitoring - Policy and Guidance for Departments 2013,A system built to for monitoring the student attendance that can adapt with the UK Visas and Immigration for transferees.

This system is used for student support as well the overall development took 4 years to develop due to its complexity and delays but by 2014 it has been in deployment and it is currently used up till today.

According to Jesus Conde-Jimenez, Salvador Reyes-de Cozar, Pilar Colas-Bravo on the study The integration of ICT in Counseling & Guidance services for improving engagement in Higher Education 2014,this research tells on the implementation of the ICT in Counseling and Guidance for universities and colleges around the world to increase productivity.

This is the article that tackles on a system that allows the user to do his or her career choice online by using the STAY-IN System to implement the assistance for the guidance counseling.

According to Eileen Bayangan-Cosidonand her system documentation of Student Information System for Kalinga State University-Rizal Campus,the system is designed to upgrade the current Student Information System by transferring the information to a new and clean environment.

This system is a new an updated version of the previous system of Kalinga State University Rizal campus to make it more accessible and faster than its predecessor.

In Chun Leung, Eva Yuen Tsang, Franklin Lam and Dominic Che Waire’ system Intelligent Counseling System: A 24 x 7 Academic Advisor. A system designed to evaluate the career choices for the students who want to pursue their careers.

The article tells about a system that uses the user input to make career choices based on their preferences and skills. With this system by imputing the preferences and skills that they developed and their preferred jobs they would have a suggested career path it could be one to many or just one depending on the users input.

## Synthesis of the Local and Foreign Studies and Literature

The researchers would like to discuss the information provided by the Local and Foreign studies. As far as the researchers can tell the need for a system for guidance and counseling is necessary due to the process of the school is integrated with the guidance and counseling such as in auditing the requirements of the students and alumni and data organization there is a need for a paperless environment as well.

With that being said let us discuss the researchers’ observation in the local studies and literature. Articles spread the awareness of guidance and counseling mostly as an actor in students' mental health and records for the behavior. There has been an improvement in the guidance and counseling as a process in the recent years since it adaptation in the Philippines and it has become a staple in the school environment. But the researchers digress in a need for a paperless environment and stream line process to create an efficient movement in the process.

After that discussion the researchers would like to go to the foreign side of the spectrum. As observed by the researchers the articles tell almost the same thing but the difference is that they require systems to become integrated with the information side and recording but they want to keep the psychological and mental health of the students.

The studies show a significant need in guidance and counseling systems as so many universities and colleges that are entering the age of information switching from the old system to new and improve system since there is a rise of student population in other countries the need has been a demand for quite some.

# Chapter 3

**METHODOLOGY**

## Method of Research

The researchers used the following method to gain information need to answer the problems of the research. In this portion the researcher discussed several methods to gain insight and clarity with the research.

At first, the researchers used an interview method as a method in gathering the information from the licensed Guidance Counselor of the 3 colleges/university, interview questions focused on the usual practices they conducted in the Guidance and Counseling Office such as in terms of recording and accumulating personal data such as in yearly individual inventory for all first year students and transferees, updating records of old students from second year to forth year students, monitoring and scheduling students who availed the guidance services such as checking their last transactions or purpose of visit to the said office and as well as for the safekeeping of the records of the alumni for a duration of at least five years. The researchers would also like to view the documents and forms that will be used by the students and also to understand the core of the system in the Guidance Counselor's perspective to gain insight to the mind of the user.

The researchers would use a survey for the following reasons and an accidental sampling was used also. Accidental sampling is a type of sampling that will helped the researchers gathered data because this type of sampling involves people as respondents who are easy to reach. Firstly to gain the student ideal system and the conditions presented in the university by understanding the students view we can see the target functions and problems within the current system. Understanding the issues and feedback of the student will be an immense help in creating the system. In order to both reliable and valid the questionnaire were validated and written in clear and easy to comprehend.

Lastly additional materials such as system designs and diagrams for guideline and studies in creating guidance and counseling systems by with we can apply in our development on that note we can create the system based on a given context at hand.

## Source of Data

The respondents of this research were Guidance Counselors of universities and colleges in District 2 Quezon City and students of the Polytechnic University of the Philippines Quezon City branch.

From the number of 1, 411 enrolled college students of the Polytechnic University of the Philippines, we used the Slovin’s Formula and so the sample size of the study is 315 student respondents officially enrolled for the first semester, school year 2017-2018. They were selected according to the sample size computed through Slovin’s formula. This study used convenience or accidental sampling technique for the survey on the students as the research relied on the availability and confirmed participation of the respondents. Their participation mainly depends on the availability of the students of Polytechnic University of the Philippines-Quezon City branch and their willingness to contribute in the study. For the interview, the respondents’ participation mainly depends on their availability and schedule.

## Research Instruments

The major instrument used in this study is a survey questionnaire. It was used to collect the result from the respondents. The instrument was constructed by the researchers themselves.

Opposite of the questions were the five (5) columns with different equivalents in which the respondents chose one for each question.

**Table 1**

**Likert’s Scale**

|  |  |
| --- | --- |
|  |  |
| 5 | Excellent |
| 4 | Good |
| 3 | Satisfactory |
| 2 | Fair |
| 1 | Unsatisfactory |

Table 3 shows the Likert’s Scale format for the survey questionnaire of the research**.** 1 corresponds with Unsatisfactory, 2 with Fair, 3 Satisfactory, 4 with Good and 5 corresponds with Excellent.

**Table 2**

**Corresponding Remark for Likert’s Scale**

|  |  |
| --- | --- |
| SCORE | CORRESPONDING REMARK |
| 4.01 – 5.0 | Excellent |
| 3.01 – 4.0 | Good |
| 2.01 – 3.0 | Satisfactory |
| 1.01 – 2.0 | Fair |

Table 2 shows the corresponding remarks for the computation of data. 1.01- 2.0 corresponds with Fair and 4.01 – 5.0 corresponds with Excellent.

## Data-Gathering Procedure

Survey questionnaires were distributed to the respondents. Researchers gave instructions on how to answer the line items and made sure that they have understood their role in this study.

Afterwards, the results of the survey are tallied and interpreted through tables and figures. Scaling of the means was determined by the use of Likert Scale.

## Ethical Considerations

The following ethics were observed in gathering data.

1. The researchers made multiple copies of questionnaires to distribute to the respondents.
2. In this research, the researchers did not force the respondents to answer the survey questionnaire.
3. The researchers keep the respondents’ personal information confidential.
4. The researches explain to the respondent the things they need to know before answering the questionnaire.
5. In the interview, the researchers considered the time availability of the respondents.

## Data Case Analysis

**Statistical Treatment of Data**

1. **Slovin’s formula** will determine the sample size of the population.

**N/(1+(Ne2))**  Wherein: N = Total Population

e = margin error

1. **Frequency and Percentage** were utilized to determine the demographic profile of the respondents of the study.

Wherein: P = percentage / f = frequency

n = total number of the respondents

**F =**  Wherein: `n= total number of response

N= total number of respondents

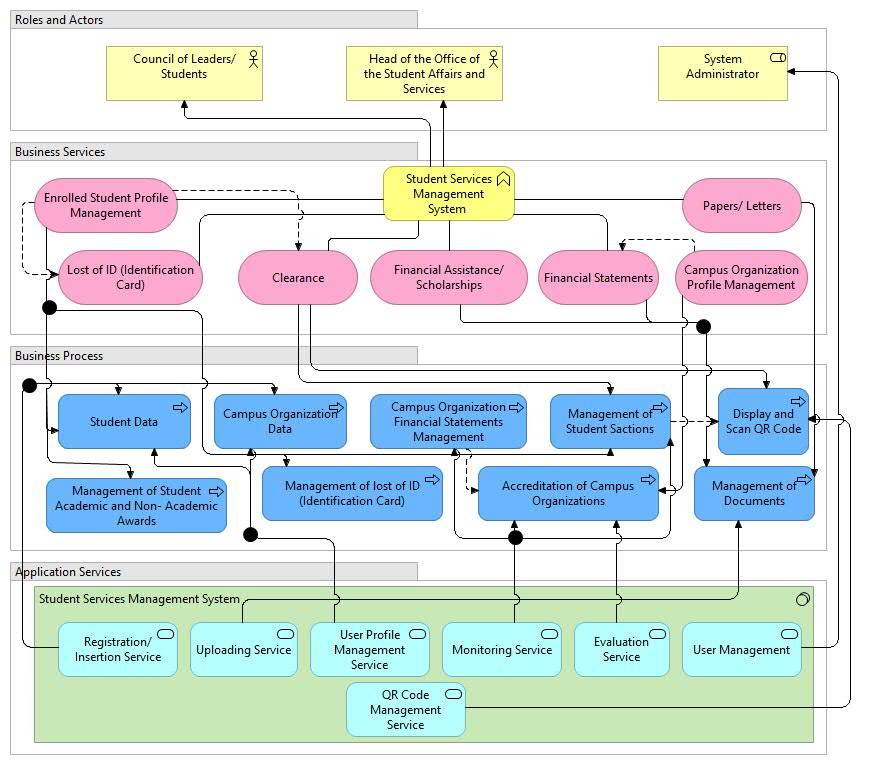
1. **Weighted Mean** was used, to determine the view of the students in guidance and counseling services in terms of efficiency, reliability, and accuracy.

Wherein: f = frequency

x = corresponding rank of the verbal interpretation

n = total number of the respondents

## System Architecture



# Chapter 4

**RESULTS AND DISCUSSIONS**

This chapter presents and interprets statistical computation of data in tabular forms with their corresponding analysis and interpretations. All figures and tables were arranged accordingly to the data obtained in the questions.

The part one of the questionnaire is the student’s profile, where name is optional, and consist of year and section of the respondent.

The part two of the questionnaire contains the questions for answering the number one and two statements of the problem. It contains the questions for evaluating the efficiency, accuracy and reliability of the Guidance and Counseling Services.

The last part, which is the final assessment, will determine if the students will prefer to have Guidance and Counseling Management Information System.

1. **Frequency of Respondents’ Visit on the Guidance and Counseling Services Office**

**Table 3**

**The Summary of Mean in The Respondents’ Frequency of Visit on the Guidance and Counseling Services Office**

|  |  |  |
| --- | --- | --- |
| CATEGORIES | FREQUENCY | PERCENTAGE |
| OFTEN | 54 | 17.14% |
| RARELY | 240 | 76.19% |
| NEVER | 21 | 6.67% |
| TOTAL | 315 | 100% |

Table 3 shows how frequent the respondents visit the Guidance Office. The result showed that the students rarely visits the guidance office with 76.19% while some often visits the guidance office with 17.14% result and 21 said they never visits the office with 6.67%.

1. **Respondents’ Assessment on The Process of the Guidance and Counseling Services Office**

**Table 4**

**The Summary of Mean in The Process of the Guidance and Counseling Services Office**

|  |  |  |  |
| --- | --- | --- | --- |
| CATEGORIES | MEAN | INTERPRETATION | RANK |
| EFFIECIENCY | 4.29 | EXCELLENT | 2 |
| ACCURACY | 3.7 | FAIR | 3 |
| RELIABILTY | 4.37 | EXCELLENT | 1 |
| WEIGHTED MEAN | 4.12 | EXCELLENT |  |

Table 4 shows that the respondents rate towards the Process of the Guidance and Counseling Services Officeare Excellent. In general, the weighted mean is 4.12 which is Excellent, based on the verbal interpretation presented in chapter 3.

Based on the accumulated data from the respondents, the highest computed mean is 4.37, ranked as number one, which is Reliability; while the lowest computed mean is 3.7 ranked as number three, which is Accuracy.

**Table 5**

**Efficiency of the Guidance and Counseling Services Office**

|  |  |  |  |
| --- | --- | --- | --- |
| EFFICIENCY | MEAN | INTERPRETATION | RANK |
| Guidance and counseling services has enabled students to be well disciplined with improved academic performance | 4.75 | EXCELLENT | 1 |
| Through guidance and counseling comprehensive advice on career / courses is given to students | 4.24 | EXCELLENT | 3 |
| The guidance and counseling service has facilities that are adequate for services | 4.18 | EXCELLENT | 4 |
| Through guidance and counseling services, the problem of the students within the school is well managed. | 4.48 | EXCELLENT | 2 |
| The guidance and counseling is able to provide classroom guidance frequently enough to meet the needs of the students | 3.80 | FAIR | 5 |
| WEIGHTED MEAN | 4.29 | EXCELLENT |  |

Table 5 shows that the respondents rate towards the Efficiency evaluation of the Process of the Guidance and Counseling Services Officeare Excellent. In general, the weighted mean is 4.29 which is Excellent, based on the verbal interpretation presented in chapter 3.

Based on the accumulated data from the respondents, the highest computed mean is 4.75, ranked as number one, which is the efficiency of the guidance to discipline the students, and while the lowest computed mean is 3.80 ranked as number five, which is the efficiency of the guidance to provide classroom guidance frequently.

**Table 6**

**Accuracy of the Guidance and Counseling Services Office**

|  |  |  |  |
| --- | --- | --- | --- |
| ACCURACY | MEAN | INTERPRETATION | RANK |
| Precise in terms of record processing such as students’ information. | 3.83 | FAIR | 2 |
| Retrieves previous visits and issues of students accurately | 3.27 | FAIR | 4 |
| Fairness in analyzing and concluding the issues faced by the students. | 3.40 | FAIR | 3 |
| Facilitating students’ personal development is an important goal of the guidance and counseling service | 4.30 | EXCELLENT | 1 |
| WEIGHTED MEAN | 3.7 | FAIR |  |

Table 6 shows that the respondents rate towards the Accuracy evaluation of the Process of the Guidance and Counseling Services Office are Fair. In general, the weighted mean is 3.7, which is Fair, based on the verbal interpretation presented in chapter 3.

Based on the accumulated data from the respondents, the highest computed mean is 4.30, ranked as number one, which is the facilitating of the student’s personal development, while the lowest computed mean is 3.27, ranked as number four, which is the accuracy of the guidance in terms of retrieval of previous visits and issues records.

**Table 7**

**Reliability of the Guidance and Counseling Services Office**

|  |  |  |  |
| --- | --- | --- | --- |
| RELIABILITY | MEAN | INTERPRETATION | RANK |
| Dedicated and constant in terms of record processing. | 3.96 | FAIR | 8 |
| The guidance is well adapted and trained to handle Gender Sensitive Problems and Orientation. | 4.37 | EXCELLENT | 5 |
| Information and data remains confidential | 4.59 | EXCELLENT | 1 |
| The guidance and counseling services is supported by the university. | 4.54 | EXCELLENT | 2 |
| The guidance and counseling service helps students with their attitude toward the academic purpose. | 4.54 | EXCELLENT | 3 |
| The guidance is considerate of the ethical beliefs and cultural origins of students. | 4.16 | EXCELLENT | 7 |
| The Guidance is managed by a qualified Guidance Counselor with acceptable credentials such as a Master's degree in Guidance and Counseling | 4.27 | EXCELLENT | 6 |
| The Counseling Room should have a pleasant Ambiance. | 4.52 | EXCELLENT | 4 |
| **WEIGHTED MEAN** | **4.37** | **EXCELLENT** |  |

Table 7 shows that the respondents rate towards the Reliability evaluation of the Process of the Guidance and Counseling Services Officeare Excellent. In general, the weighted mean is 4.37, which is Excellent, based on the verbal interpretation presented in chapter 3.

Based on the accumulated data from the respondents, the highest computed mean is 4.59, ranked as number one, which is the confidentiality of data, while the lowest computed mean is 3.96 ranked as number eight, which is the dedication in terms of record processing.

1. **Respondents’ Final Assessment on TheDevelopment of Guidance and Counseling Management Information System**

**Table 8**

**Computed Percentage of Respondents’ Final Assessment on the Development of Guidance and Counseling Management Information System**

|  |  |
| --- | --- |
| ASSESSMENT | PERCENTAGE |
| AGREE | 100% |
| TOTAL: | 100% |

Table 8 shows that the response of the respondents as for their final assessment of the guidance and counseling services if they agree that the guidance office needs a management system.

Based on the accumulated data from the respondents, the highest computed percentage is 100%, which is Agree.

# Chapter 5

**SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION**

This chapter presents the drawn conclusions and formulated recommendations based on the analyzed and interpreted data.

## Summary of Findings

From the presented data in the previous chapter, the following are the consolidated findings.

The numbers of total respondents are315, and they are composed of selected PUPQC students.

1. **Research Number 1: How often the students visit the Guidance Office?**

In table 4, data shows that there are 240 students that rarely visited the guidance office with 76.19% of the total number of respondents.

1. **Research Number 2: What are the assessments of the students to the Guidance and Counseling Services of the Polytechnic University of the Philippines Quezon City Branch in terms of the following:**
   1. Efficiency

In the Efficiency Table, the measurement of weighted mean is 4.29 which is Excellent. The highest computed mean is 4.75, ranked as number one, which is the efficiency of the guidance to discipline the students.

* 1. Accuracy

In the Accuracy Table, the measurement of weighted mean is 3.7, which is Fair. The highest computed mean is 4.30, ranked as number one, which is the facilitating of the student’s personal development.

* 1. Reliability

In the Reliability Table, the measurement of weighted mean is 4.37 which is Excellent. The highest computed mean is 4.59, ranked as number one, which is the confidentiality of data.

1. **Research Number 3: Do the students prefer having a management information system for the guidance and counseling services office?**

From the total of 315 respondents, 100% said that they agree that the guidance office needs a management system.

1. **Research Number 4: In the interview, do the guidance counselors want to have a management information system for the Guidance and Counseling Office?**

Based on the interview conducted, 3 of 3 of the interviewed guidance counselors want to have a management information system for their guidance office.

## Conclusion

From the enumerated summary of findings, the following conclusions were drawn:

Researchers found out through survey the respondents’ view on the guidance and counseling services. In the overall result on tallied data, the respondents were fairly and satisfied in the study. There are four different categories:

In terms of Efficiency, the respondents found the guidance and counseling services efficiency excellent.

In terms of Accuracy, the respondents found the guidance and counseling services accuracy fair.

In terms of Reliability, the respondents found the guidance and counseling services reliability excellent.

As for the summary of ratings, the respondents agreed that the guidance and counseling services efficiency is excellent.

Based on the evaluation of the respondents and the verbal interview with different counselors, the researchers have analyzed that the students and guidance counselors find it helpful to have a Guidance and Counseling Management Information System.

With these assessments, the researchers conclude that the students and guidance counselors want a Guidance and Counseling Management Information System.

## Recommendation

In the light of the findings and conclusions the following are hereby recommended:

1. The guidance and counseling services needs a systematic and automated management system for their transactions. The retrieval of data would be a lot easier if the files or records are well compiled and stored in one place, for this, the researchers highly recommend a database in a system for more accurate and reliable retrieval of data.

2. The system to be developed should have features such as profiling, student data, visits, transactions and summary reports for the guidance and counseling services.

3. The system should be user-friendly and easy-to-use for non-technical users specially the counselors and their assistant/s.

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