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ELEVATING SATISFACTION: LIBRARY SYSTEM IMPACT ON USER MATERIAL ACCESS AND SATISFACTION

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May 2024

ELEVATING SATISFACTION: LIBRARY SYSTEM IMPACT ON USER MATERIAL ACCESS AND SATISFACTION

A Research Proposal
Presented to the Faculty of the Basic Education Department
of the Holy Cross College of Calinan, Inc.

In Partial Fulfillment of the Requirements
in Practical Research 1 & 2

By

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May 2024

APPROVAL SHEET

In partial fulfillment of the requirements in Comp App, this study entitled **ELEVATING SATISFACTION: LIBRARY SYSTEM IMPACT ON USER MATERIAL ACCESS AND SATISFACTION,** prepared and submitted by Aurora Faith L. Lancheta, Rigel Yestin B. Daggon, Allyssa Marielle N. Caluma, Lennard Jan S. Polentinos, Shine D. Hernane, and Maria Alyzandra B. Agbunag is hereby recommended for oral examination, approval and acceptance.

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ACKNOWLEDGEMENT

The researchers would like to express their sincere appreciation to the individuals who contributed to the completion of this research project

To Miss Vallerie Joy T. Escolano, their advisor, for carefully checking and fixing this research, and for guiding, supporting, encouraging, and giving them insightful advice;

To the administration, including Sr. Cherie Eloisa L. Garrote, PM, and Maria Corazon C. Sunga, Ph.D., for granting permission to the researchers to conduct their study in the Basic Education Department;

To their panel members and validators, Melina C. Gonzales, Ed.D., and Miss Cherry Rose R. Tacay, for dedicating time to edit the entire manuscript and for contributing their expertise by validating the research survey questionnaire;

To the registrar of the Basic Education Department, Ms. Merry Angel T. Jala, for her generous assistance in providing the required data;

To Ms. Rialyn V. Baguio, the Mathematics coordinator of the Basic Education Department, for generously sharing her expertise and for offering her assistance and support in analyzing the data;

To Mrs. Liza Mae B. Pantanosas, the Prefect of Student Formation officer, who assisted in obtaining the data;

To Mrs. Liezl O. Baratas and Mrs. Emilyn M. Divinagracia for their willingness to assist in providing the required data from the library;

To Mr. Jumar L. Cadavos, the Systems and Monitoring Assistant Computer Technician of the institution, for committing his time and skills to enable the implementation of software in the library;

To the respondents, for offering their complete support, and for generously allocating their time during consultations, and in responding to electronically generated questionnaires, even amidst their busy schedules;

To their friends and classmates, for assisting in instances when the researchers encountered challenges and issues;

The family members of the researchers, including Mr. Jolah S. Barredo and Mrs. Jonemie C. Lofranco; Mr. Melben O. Daggon and Mrs. Derly B. Daggon; Mr. Grant B. Caluma and Mrs. Jecel N. Caluma; Mr. Eliseo L. Polentinos and Mrs. Sheila Mae S. Polentinos; Mr. Mcdhong Nafel Diamante Arches and Mrs. Elna Bautista Agbunag; and Mr. Eusebio O. Hernane Jr. and Mrs. Marjorie D. Hernane, are acknowledged for their unwavering love, inspiration, and comprehensive support, encompassing financial, moral, physical, emotional, and spiritual assistance; and

Above all, to the Almighty Father, for providing them with direction, knowledge, comprehension, illumination, and insight to ensure the accomplishment of this study.

The Researchers

ABSTRACT

This study assessed the level of student satisfaction with the current manual borrowing system of the library in contrast to automation. It employed the quantitative type of research with a descriptive-comparative design. The study aimed to describe the respondents using frequency and percentage distribution. Moreover, the level of satisfaction towards both systems using mean and standard deviation. Moreover, the significant difference of the resulting overall mean used paired t- test. It involved the calculation of the frequency, mean and standard deviation and paired t-test. 235 respondents participated in this study which were identified through the use of stratified random sampling. The study having able to assess the overall satisfaction difference between the two services concluded high significant difference between the two system, with automation having higher satisfaction than the manual system. With the results in hand, the researchers would like to recommend to the school administrator to implement the library's automated system services and to further improve the organization of books wherein they can be more accessible to the library users.

Keywords: Automated Library System, Manual Library System, paired t- test, Library services, Student satisfaction, Descriptive-Comparative, Borrowing

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Chapter 1

INTRODUCTION

Background of the Study

Technology integration is pivotal in library operations as information explosion necessitates the shift from manual to automated system for efficient management (Singh, 2020). Specifically, automation is the mechanism crucial to attain the benefits of systematic record keeping, streamlined issuance and return of books and cost effectiveness (Das & Chatterjee, 2015). Also, library automation maximizes library management and workflow using a software primarily operated by a computer (Mishra, Thakur & Singh, 2015). The expensive, inefficient and obsolete nature of manual systems prompted libraries to adopt an automated system to effectively manage collection, circulation and weeding of library materials (Brick, 2018). By embracing the idea of automation, effective management is achieved as long as technology is embedded in the library services (Nunekpeku, 2019).

Globally, technology enforced a paradigm shift in library distribution services as libraries were enticed by its advantages (Mrs, Oyiza & Yetunde, 2020). In Ghana, the University of Cape Coast made use of automation way back in 2000. The cataloging section first received the treatment and successfully achieved their objectives to make distribution and processing of library books convenient and fast (Nunekpeku, 2019). On the other hand, Tanzania's public university libraries attested how the change of system from manual to automated was able to improve and support the services offered by each library section. A study conducted by Samzugi (2019), surveyed 8 public university libraries in Tanzania who partly automated several functions present in the library. The results concluded that 95% of

cataloguing was automated while the remaining 5% of automation was for budgeting. Thus, the demand for automation especially in cataloguing services of the library is crucial to reduce repetition of work and increase efficiency in terms of organization and accessibility of card catalogues (Samzugi, 2016).

In the national scope, the manual library system of Quezon City Public Library contained anomalies (Tampipi et al., 2020). They found out that the manual library system is slow in transacting books and all the data in their manual record can be easily lost. Therefore, they made the decision to computerize the library system instead, for simple transactions and to prevent the loss of all system data. Moreover, the use of the library management system in Llano High School helped in managing and organizing the library process and services (Arroyo et al., 2020). Using the system, the librarian can easily keep track of the books being checked out and returned. Hence, the library workflow becomes more efficient.

On the other hand, a faster and efficient way of borrowing books is what students, teachers and staff wanted. However, one of the colleges in the municipality of Banaybanay, Davao Oriental still operated their libraries manually. As a result, it takes more time and effort to find books that the students need. Thus, automation of the library system was proposed to manage work processes in school libraries. This is to eliminate hassle in dealing with various library transactions including lending and searching for a specific book (Course Hero, 2019). In Davao City, one of the big universities completely upgraded their library management system and notice that it is not only the community benefited from the software's ease-of-use, but librarians also noted a distinct benefit as well with improved

access to the platform (The Library Corporation, 2021). This means that it is essential for the learners and librarians to have systematic software to function for library management.

Even though automated library systems are being integrated in public university libraries almost everywhere, but not every educational facility has it. In the school where the study is conducted, automation of the basic operations of the library is still not applied which makes borrowing of books inconvenient for both students and librarians. With that being said, the researchers felt the need to automate the cataloguing section along with the book lending services of the participating school to effectively cater the influx of information and large collection available in the library. Therefore, the proponents of this study pursued to address the said predicaments in the library by integrating an automated library borrowing system.

Statement of the Problem

This research is conducted to compare the satisfaction level of the library users between the manual borrowing system to an automated borrowing system. Specifically, the study aims to answer the following questions:

1. What is the demographic profile of library patrons in terms of:
    1.1 sex;
    1.2 age; and
    1.3 year level?
2. What is the level of satisfaction of the library users with the borrowing and browsing services of the library using manual system when grouped according to:
    2.1 sex;

2.2 age; and

2.3 year level?

3. What is the level of satisfaction of the library users with the borrowing and browsing services of the library using automated system when grouped according to:

3.1 sex;

3.2 age; and

3.3 year level?

4. Is there a significant difference between the level of satisfaction of library users in using the manual and automated system of the book borrowing and browsing services offered by the library?

Hypotheses

H_a: There is a significant difference between the level of satisfaction of students in book and borrowing services offered by the library using the manual and automated system.

H_o: There is no significant difference between the level of satisfaction of students in book and borrowing services offered by the library using the manual and automated system.

Review of Related Literature

In order to fully comprehend the notion and to support this study, the researchers gathered various data from various sources in this section that are relevant to library management systems and the satisfaction it disputes.

Automated Library Management System

A library management system (LMS) is a program that manages books, tracks borrowed books, pays fines, and fees, and does book searches all in one place. It automates the majority of library operations while also assisting the librarian in managing books and books that members have checked out. It increases productivity, reduces maintenance costs for the library, and spares both the user and the librarian time and effort (Osinuga, 2022). It is the most innovative way of managing end-to-end library operations, including database maintenance with bibliographical records of all materials, records of book issues, returns, and renewals, published information, and automated fee collation (Clotilda, 2022).

Uzomba, Oyebola, and Izuchukwu (2015) defined Library Management System as the software used to automate library activities. The mechanisms include the software, database, and two interfaces to build a unified system with numerous functions able to cope with different tasks all vital to management. The software includes a package of programs called "modules" representing areas of services in the library. Meanwhile, the two interfaces mentioned are for the control center of the library and the patrons. Identically, Cao, Liang and Li (2018) named the three basic elements needed to establish a smart library: technology, services and the human itself.

Meanwhile, a library management system has been created to manage all library activities to promote technology-driven education (Tobi & Olaiya, 2015). Making use of an effective library management system that integrates Internet-of-things (IoT) and a standard library may develop towards being a next-generation library as it automates its main

operations. Users will be able to effectively communicate with IoT devices in order to carry out necessary tasks (Ozeer, Sungkur & Nagowah, 2019). Therefore, these technologies offer a complete solution for simple library operations (Tahil, 2021).

Computers facilitate library operations which enables the library to work efficiently in providing services (Abbas, 2014). Indeed, an automated library has improved services such as making circulation and book locating operations easier for personnel. This saves time and improves employee happiness and performance. The staff load of manual circulation and stock-taking activities is greatly decreased, allowing them to undertake more productive work, which improves the library's services to its patrons (Koul, 2020). Hence, the Automated Library System is efficient in material tracking of borrowed library resources. It works as a book search engine to swiftly monitor its status and accumulate fines impeccably compared to the manual system.

Furthermore, libraries around the world shifted their mode of management from manual to automated as they find it necessary and important in running daily library operations (Uzomba, Oyebola & Izuchukwu, 2015). By using library automation collection, storage, administration, processing, preservation and communication, library automation reduces the drudgery of repeated manual efforts in library routines. It boosts productivity in both job and service. It takes the tedious work of maintaining and organizing a catalog off the hands of humans. Thus, librarians have been able to handle a number of common issues, including heavy workloads, ineffective workflows, and declining patron service quality, with the aid of automated tools (Algorhythms, 2023).

The LMS is far more user-friendly, faster to operate, and simple to manage than the manual system. It allows the librarian to manage the entire library's data in a single database in different tables with far greater security than the conventional method (Sharma & Kandari, 2022). Another significant advantage of library management software is that it makes life easier for library customers. Most of the solutions presented offered a user dashboard where library customers can create their own accounts, find new books, read online, or borrow materials (Jotform, 2021).

Using an LMS, may swiftly and productively carry out all tasks such as stock verification, circulation, serial control, binding, indexing, book purchase and cataloging (Sharon, Akshaya & Divya, 2022). Additionally, it reduces the operating cost, saves time, and makes the library a Smart Library. A smart library is not only well-organized, but it also allows for rapid and easy book searches. Another feature of library management system software is the ability to look for rare books and apply for interlibrary loans, as well as vice versa. This allows students to easily access all the books from multiple libraries from a single location (Datir, 2020).

It is important to note that librarians can use library automation software to administer the library's digital resources such as e-books and online databases, track and monitor their usage, and ensure proper upkeep and accessibility for patrons. Automation eliminates errors and aids in the organizing of resources for efficient retrieval and better utilization, ultimately boosting organization (LISedunetwork, 2014). Hence, automating the library helps to secure records, allowing only authorized entities to access information. This keeps sensitive data from being misused or stolen. Also, Libraries can track resources such

as e-journals, books, periodicals, fines, entries, and so on in order to enhance resource management (GR Tech Writer, 2023).

Automated systems can automate routine tasks such as lending, returning, and updating books, freeing up more time for librarians to focus on more personalized and professional support. In addition, automation enables the implementation of self-service options such as self-checkout kiosks and online reservations, allowing users to independently access and manage library resources for greater convenience and efficiency (LISedunetwork, 2014). As a result, the amount of time that users are borrowing is decreased, reader happiness is increased, librarian labor frequency is decreased, their work efficiency is increased, and it is anticipated that lessons learned will be applied to the future development of the library lending service model (Zhang, Zhang, Qin, Du & Wu, 2019).

Required Human Skills for Automation

Barfi (2015) accentuated the lack of ICT skills and expertise as a barrier to a successful enforcement of library automation. A study conducted by Maru and Tadasad (2021) in Goa State seconded this problem from the results of their survey. From 5 out of 9 library respondents, 100% say that staff had a few training opportunities to enhance their ICT skills and fill the knowledge gap regarding the use of various automation software. Meanwhile, Ahmad, Lone and Basharat (2020) as cited by Shastri and Chudasma (2022) determine the significance of ICT in libraries to provide efficient servicing of users. The use of various software applications and integration of the RFID technology urge librarians to schedule a training interval to attain work efficiency. This further testifies the need of ICT as a required skill for academic librarians to have among all the competencies desired.

Exploitation of resources can be put to better use through enabling ICT competencies among librarians (East, 2007; Oyedokun, Oweyumi, Akanbi & Laaro, 2018).

Implementation of automation systems in libraries is a challenge brought by its novelty in the learning environment especially in developing countries (Jayaprakash & Balasubramani, 2011; Boateng, Agyemang & Dzandu, 2014). In addition, a survey conducted by Malkanthi (2017) of the library automation status in Sri Lanka identified challenges upon the first phase of its implementation. Among are the lack of skills leading to technological hesitancy of library staff and insufficient funding. Thus, librarians must know how to acquire and provide available required databases for teaching, research and learning to the university community (Enakrire & Ocholla, 2017). In addition, this requires users to be digitally literate for them to maximize its full application and make automation effective (Sambo, Imran & Akambi, 2022).

Different Software Applications Used in Library Borrowing Management

Librarians have been able to handle a number of common issues, including heavy workloads, ineffective workflows, and declining patron service quality, with the aid of automated tools. A useful LMS, like iSLIM, is made to be simple to use, requiring little training from those who access the library (Algorhythms, 2023). By scanning the book's QR code, the data for the book can be retrieved all at once. By creating this system, the old-fashioned technique of borrowing, where the record was manually written and preserved in a book, would be replaced. The system has adopted a few security measures including password hashing and login credentials to protect system users from data breaches of physical records (Madzidon & Harun, 2022).

Meanwhile, the Alexandria library software solution enhances and improves services to the wider community. The program is a web-based cross-platform that may be used or accessed on computers or devices running various software packages. It is a fully featured computerized application that is simple to set up and can be adapted to the customer's specific needs. The software's strength is its withstanding reputation, affordability, user-friendly interface, multiple logins, Machine-Readable Cataloging (MARC), and kiosks compatibility (Felicia, Ayooluwa & Emmanuel, 2015). On the other hand, its notable limitations are inadequate indexing of periodicals and limited range of report generations. Moreover, a Post Implementation Benefits Review was conducted to establish whether the benefits identified at the time of software procurement were realized, and the Montserrat Public Library has any intentions to improve the software in the future (Lee, 2020).

Another notable software used in library management is Koha. It is an open-source web-based integrated library system that can manage a wide range of administrative procedures common in modern libraries, such as cataloging, authority administration, serial management, circulation, acquisitions and reporting (Akpokodje & Akpokodje, 2015). Koha offers librarians an affordable, yet high quality, alternative to commercial ILS while surpassing them in features, development, code maturity, and professional and community support. In terms of effectiveness and overall user satisfaction, Koha received a mean score of 3.64 on a five-point scale having consistency and continuous provision of services garnered the highest satisfactory mean (3.93) among other statements of user satisfaction in private university libraries in Bangladesh (Alam & Mezbah-ul-Islam, 2020). This makes

Koha a safe software that keeps up with modern technological changes, ensuring the latest and best features to help manage a library 24/7 (Koha Support, 2022).

On the other hand, Mandarin M5 allows users to access library resources from any computer that has an Internet connection. The user interface is straightforward and easy to understand, and the appearance and functions may be customized for any library. With one-point installation, maintenance, and updates, M5 can help decrease costs and save time for single locations or big library systems (Savitha, Somashekhara & Dange, 2017). An analysis of the Mandarin M5 conducted in University of Belize implicated the positive net benefit of M5 from the responses and its perceived usefulness among users. Most of the internal user respondents responded positively for its cost efficiency and functionality but received a neutral score of 4.12 for the service quality specifically of support staff availability to handle technicalities upon using the software or keeping the system up to date (Lemus, Juan, Frutos & Guerra, 2017).

Factors Affecting Satisfaction of Library Users

Age and year level has a significant impact on the extent of usage of library services. Availing library services among young adults of age 15-19 who are focused in their academe are prevalent (Joy & Iwodu, 2014). This inclination occurring in this age group is born out of necessity and not for entertainment. On the other hand, those who are 35-60 years of age use library services under circumstances and elderly people use public libraries for pleasure purposes. This suggests libraries to attend to user's satisfaction and needs as its principle.

The study conducted by Younus, Abdullah and Hamid (2021) on students' satisfaction with resources and services in school libraries in Punjab, Pakistan yielded

majority of their respondents between the ages of 13 and 14 and the greatest age group of the study's data ranges 13 to 19 years old. They also assessed the level of satisfaction of male and females regarding the two systems, automated and manual, wherein the distribution of mean results for males is 28. 285 and 29.159 for females indicating a short gap between their satisfaction levels.

In addition, the Ansar, Shahzad, and Siddique (2021) investigation revealed that the mean scores of male and female participants were nearly same, with high scores. This indicates that both are quite happy with the automated library services. Meanwhile, the study conducted by Liu and Luo (2015) found that undergraduates aged 18 to 19 were much more satisfied with their overall experience of using digital libraries than undergraduates aged 20 to 22, with over 80% of the former group reporting satisfaction compared to 60% of the latter.

According to a study by Nunekpeku (2019), whereby 70.8% of respondents were men and 29.2% were women, men are more likely than women to use library resources when it comes to sex (Nunekpeku, 2019; Bassi and Camble, 2011; Manda and Mukangara, 2007; Bar-Ilan et al., 2003). Furthermore, with respect to age and grade level, the research of Park O.N. The happiness of teenagers between the ages of 13 and 18 using manual library services is investigated in (2022). The teens' overall satisfaction with the school library services received the highest mean score of 3. 96.

Moreover, the findings from Johannsen's study of innovative public library services provided information about the quality of library assistance. In terms of gender, females got an above average of 70% and below average of 57%, while males got an above average of

30% and below average of 33%. Age ranges from 20-29 attain an above average of 12% and below average of 28%, 30-39 got an above average of 18% and below average of 12%, 40-49 attain an above average of 18% and below average of 16% and ages 50 above got an above average of 53% and below average of 44%. An overall total of 100% (Johannsen, 2014).

A study conducted by Restoum and Wade (2013), showed the significant difference between information resource elements in the library and profiling variables such as age and gender. From Mann Whitney and Kruskal-Wallis test, the level of significance was indicated by a p-value of .004, < .001, .031 and.008 respectively in terms of gender, age, level of education and faculty groups with respect to resource accessibility. Level of study and age noted a significant difference in terms of accuracy garnering a p-value of .007 and .012. Meanwhile, gender and level of study are significantly different in terms of resource cost. For understandability, age and faculty groups resulted in a p-value of .018 and .010 interpreted as significant. Overall, the study revealed the significant impact of varying profiles to their level of satisfaction with services. But contributors to the study noted other research whose results differ from their analysis.

On the other hand, another study stated the insignificance of demographic characteristics to the level of satisfaction of Online Public Access Catalog or book browsing services. 27.8 percent of male and 20.4 percent of females were satisfied in regard to using OPACs. From the Chi-square test, the p-values revealed insignificant at 0.088, 0,561 and 0.329 p-values under user category, gender, and age group. Therefore, the study accepted the null hypothesis to answer the comparison of demographic variables and satisfaction level (Kumar, 2014). However, the level of user satisfaction and computer skills posits a

relationship according to the Chi-square analysis of the same study. Computer knowledge and web searching garnered p-values of 0.014 and 0.000 respectively rejecting the null hypothesis and implicating the significance of their relationship (Kumar, 2014).

Efficiency Satisfaction in using Automated Borrowing Systems

Library automation software is a type of computer application that is aimed to improve the efficiency and productivity of libraries. Automating the library reduces the burden on librarians and other collection, cataloging and distribution staff, allowing them to better serve their customers (Castek, 2017). On the other hand, Omoadoni (2019) mentioned the shift of Libraries and Information Centers (LICs) to automated systems to cater to patron demands in terms of operation and services provided. Areas of great importance as part of evaluating academic libraries for user satisfaction include library size and retrieval extent, resource management efficacy, level of catalog functionality, staff competence in library resource distribution and user tutelage (Ijiekhuamhen, Blessing & Omosekejimi, 2015).

Anas, Iqbal, and Ahmad (2014) discovered the effect of library automation on management. The library services of Aligarh's academic institutions data were gathered through a survey. The study included four libraries wherein three of which participated. One library was totally automated, while another was partially automated. The findings found that most professional librarians believe automation has improved library services, while 85% of library users believe automated systems are superior to traditional manual systems.

In a 2016 study conducted by Pandya and Darbar, they investigated what patrons knew about the automated system in the library. Additionally, they claimed that following

automation, users were quite happy with the library's quick services because they could now access information very quickly, thereby influencing how quickly they could complete their duties. Mairaj and Naseer (2013) carried out a study " Library Services and User Satisfaction in Developing Countries: A Case Study" which resulted in finding out the significance of improving library services as a factor in order to gain library patron satisfaction. With that said, it had also suggested libraries to adopt other methods probing user satisfaction in terms of library services and address the needs and necessary actions to undertake to increase the level of happiness among patrons. Similar to Hussaini, Vashistha, Jimoh and Jimah (2017), their study emphasizes how librarians can raise consumers' levels of satisfaction via computerizing library processes like acquisition and the Online Public Access Catalog (OPAC), serial services and circulation.

Meanwhile, Saini, Bhakar, and Singh (2014) looked into how satisfied users are with the library services of Jaipur colleges. Overall, the findings indicated that engineering college students were satisfied with the services provided by the library as a result of its adoption of new technology to ensure quick service delivery to patrons. Olagoke and Kolawole (2019), on the other hand, concluded in their study “Effect of Library Automation on Performance of Librarians in Private Universities in South-West Nigeria” that library automation has a direct positive relationship between the librarians’ performance. Since the study’s analysis revealed 33.1% of services of the library that are automated, it recommended full automation in order for the librarians to efficiently manage the library.

In summary, automated library management systems offer numerous advantages, including increased efficiency, improved user satisfaction, and the ability to enhance library services. However, the successful implementation of these systems requires the

development of ICT skills among library staff and users. The shift to automation can be challenging, particularly in developing countries, where funding and expertise may be limited. Different software solutions cater to various library needs, with a focus on improving efficiency and user experiences. Overall, automation has the potential to transform libraries into more user-friendly and efficient spaces.

Theoretical Framework

In this study which aimed at enhancing student satisfaction through the integration of an automated library system, two relevant theoretical perspectives have been incorporated in the framework: the Technology Acceptance Model (TAM) and User Experience (UX) theory. According to Davis (1989), the TAM posits that users' perceived usefulness and ease of use significantly influence their intention to adopt and use a technology. In the context of this research, TAM will guide the investigation of how students' perceptions of the automated system's usefulness and ease of use impact their overall satisfaction and intention to adopt the system (Venkatesh & Davis, 2000).

Additionally, the User Experience (UX) theory emphasizes the holistic interaction users have with technology and how it influences their perceptions and behaviors (Hassenzahl, 2010). This theory will help analyze aspects such as usability, accessibility, and aesthetics in both the manual and automated library systems, contributing to the understanding of how these factors shape students' satisfaction and acceptance. Through the combination of these two theories, this study aims to provide a comprehensive framework for examining the factors that contribute to student satisfaction and technology adoption within the library context.

Conceptual Framework

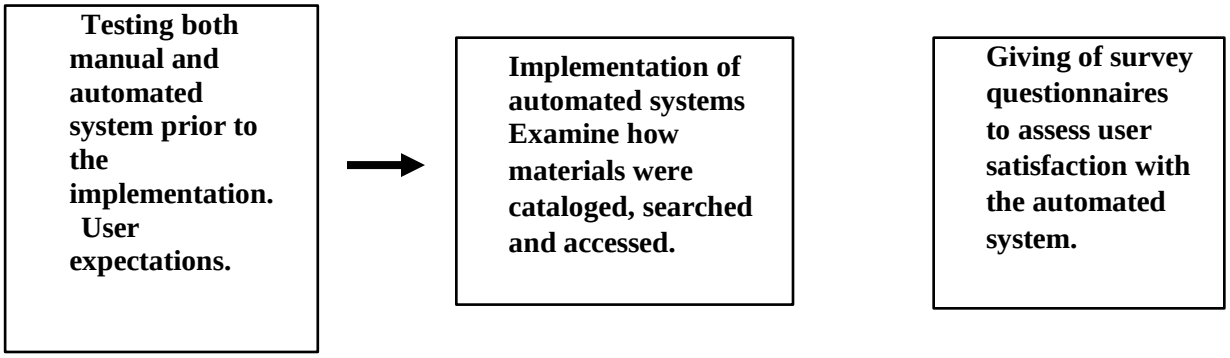

Figure 1. Conceptual Framework

The conceptual framework of the study is presented in Figure 1. This included the input – process – output model that explains the problem, the solution intended to develop to resolve the problem, and the expected outcome for the process.

In the comparative research study aimed at evaluating user satisfaction with library access systems, the research design followed an Input-Process-Output (IPO) framework. The 'input' phase involved pre-implementation testing of both the manual and automated systems to identify potential challenges and user expectations. The 'process' stage encompassed the implementation of the automated system, including the examination of how materials were cataloged, searched, and accessed within the new system. As part of the 'output' phase, survey questionnaires were distributed to assess user satisfaction with the automated system, thereby providing valuable insights into the effectiveness of the system's implementation and its impact on enhancing library access for students.

Definition of Terms

The following terms are operationally defined to help the readers follow the context of the study.

Library services – It refers to the service offered by the library, specific only in borrowing and browsing of books.

Manual borrowing system – It is the method of managing borrowing and browsing books without the use of computerized systems.

Automated borrowing system – It is the digitized process used for borrowing and browsing books.

Efficient library management – It refers to the effectiveness of organizing information sources, equipment, human resources, and technology to meet the objectives of the library.

Lending – This is the action of providing service in the library. It is a process of returning a borrowed book.

Student satisfaction – It is the measure of the student satisfaction in the service provided inside the library based on the adapted indicators.

Significance of the Study

This study aims to address predicaments encountered in availing lending services offered by the library through integrating an automated library borrowing system. Given that purpose, the result(s) obtained from experimentations will help the institution to provide a better framework that would increase work efficiency of the departments. This would also open paths for the institution to integrate and adapt state-of-the-art technologies to visualize

its mission and vision to deliver excellence in the quality of education delivered through its sophisticated management.

Further, systemization of work can help librarians, teachers, and staff to manage workload and focus on reproducing quality work. Librarians and staff will be able to use the software for easy management and tracking of books. This will also help them impose fines properly for users who returned their books beyond the due date. Teachers can borrow specific learning material fast since the borrowing process is faster. Moreover, this would also help students to maximize the use of library materials and will also help them reduce wastage of their effort and time by simply searching for a specific material. Above all, this could also lead to the birth of another study revolutionizing another aspect of management in the institution.

Scope and Delimitation

The study will focus on integrating an automated system for the library to enhance library management efficacy. This study has a duration of at least 1 year. Software integration will take place for 1 month. On the other hand, the participants will comprise of Junior High School students in the 9th and 10th grade, Senior High School students, and the Basic Education Faculty since they have the capacity to partake the survey questionnaire and are equipped to analyze questions for credibility of results. Moreover, the respondents should also know how to operate the integrated software, whereas it will be facilitated to them by the researcher before they partake in the survey. In addition, the study will only cover book borrowing and browsing services which are a sub-part of the circulation operations.

The study will not include respondents below 9th grade because they are not fully capable when it comes to processing questions and give meaningful and relevant answers. Meanwhile, the study did not include other library services apart from the book borrowing service since it goes beyond the researcher's capacity. In addition, the time given to conduct the study is not enough to cover the overall library services. Therefore, the number of tries the respondent has in using the software will be limited to one.

Chapter 2

METHODS

This chapter discusses the research design and research procedure to carry out the researcher's idea and information of the study. It specifies the locale of the study, respondent selection, sampling method, research instruments, and statistical analysis.

Research Design

The study was quantitative in nature and used the comparative design since the study integrated an automated library system software. Specifically, it only aimed to compare the average satisfaction scores of the manual and the automated system. This was to measure the level of satisfaction of basic education learners in terms of browsing and borrowing library materials compared to the absence of the automated system. Comparative design according to Adiyia and Ashton (2017) analyzes and explicates the differences of the variables concerned making it contextually suitable as the design of the study.

The design was applied in order to achieve its objective of determining the efficacy of integrating an automated library borrowing system in improving library management through comparing the resulting average satisfaction scores of manual and automated systems.

Research Respondents

The research respondents were the users of the basic education library, from Junior High School grades 9 to 10, Senior High school students as well as the faculty. The sample technique of this study was Stratified Systematic Random Sampling which allowed the

population to be divided into strata. In this case, the users of the basic education library in accordance with the scope of the study were divided according to their grade level and strand. Afterward, the sample size was determined and the proportion of people from each strata was also obtained using the formula. In order to locate the same respondents who had answered the pretest to answer the post-test easily, it was systematic in nature. Specifically, systematic random sampling could be applied through setting a specific parameter in determining the respondents on a specific class list. Researchers used stratified random sampling to generate a sample population that most accurately represented the total population being researched, and it was divided by the entire population into strata (Hayes, 2023).

On the other hand, individuals were eligible to participate in the study if they were 14 and above or were currently a grade 9 student. This was to ensure that the respondent was adept enough to comprehend the situation, give relevant answers to questions, and be responsible in taking tasks. Meanwhile, individuals below the age of 14 were ineligible to become a respondent of the study. Given that they were young, they would not be able to fully participate and give the necessary data needed for the study. Hence, with this given criterion, it increased the chances of gathering reliable and valid data.

Research Locale

The study was conducted at the basic education library of one the private schools in Davao City managed by the Presentation of Mary Sisters, from Elementary, Junior High School, and Senior High School students. In June 2016, the said basic education fully implemented Senior High School which offers the academic track of Science, Technology,

Engineering and Mathematics (STEM) Strand, Humanities and the Social Sciences (HUMSS) Strand and Accounting, Business and Management (ABM) Strand. Notably, the school had integrated the WELA system which utilizes RFID technology specifically for monitoring absenteeism and tardiness through scanning students' ID. In relevance to the school's vision in adapting relevant technologies to adhere to global standards, the study aims to nurture the embodiment followed by the institution.

Figure 2. Satellite Map of Research Locale

Research Instrument

The study utilized two research instruments, which were the survey questionnaires and the developed software. The software served as the medium used to measure the efficiency of service provision by facilitating these operations. However, to ensure the credibility and reliability of results and to use a good instrument, it had to undergo pilot testing and a validation process (Dikko, 2016). Various researchers have noted that conducting pilot tests can help identify errors early, thus giving researchers time to adjust and adhere to the needs of the instrument to function properly. Additionally, it emphasized

the credibility of the instruments used in the study (Gani, Imtiaz, Rathakrishnan & Krishnasamy, 2020; Dikko, 2016; Teijlingen & Hundley, 2001).

Furthermore, pilot testing consisted of one of the three tests based on Mohd and Shahbodin's 2015 study on Personalized Learning Environment. The test utilized by the study was Beta testing, which further investigated the level of software usability through assessing key aspects of module and interface accessibility. Specifically, respondents were given test cases in which they marked a specific feature of the software as pass or fail depending on its actual performance. On the other hand, usability rules are process standards with a less prescriptive nature than design or performance standards, making it challenging to determine the specific testing and design changes needed.

Thus, the usability evaluation process relied on determining the passing rate of the software. This passing rate varies depending on the product type, with consumer products typically having 80%, medical devices at 97%, and some safety-critical tasks at 100% (Borsci, Macredie & Martin, 2024). In the study's case, the software fell within the consumer products category with an 80% passing rate. This means that the computed overall passing rate of the system must be 80% and above to pass. The passing rate for each input is computed by dividing the total number of passed test cases by the total number of test cases.

On the other hand, the content of the survey questionnaire was validated by two teachers who were familiar with the study and the dynamics of research. The validation process started with the researcher's plan, criteria, and goals. After thoroughly reviewing the paper, a letter was sent to prospective validators requesting them to validate the

instrument to be used in the study. Once the date for validation was secured and scheduled, the researchers provided validation sheets to validators on the day of validation. Subsequently, the ratings and approval of validators enabled the researchers to use the survey questionnaires as research instruments. Implementation and distribution of survey questionnaires were therefore allowed afterwards.

The survey questionnaire consisted of two parts. To answer the first research question, the first part had the demographic profile, wherein respondents were asked to supply or check the information applicable to them. Meanwhile, the second part answered the second research question, with two indicators, namely the automated and the manual system. A 5-point Likert scale table was used for both indicators, and both were also asked the same questions. The questions given determined the differing efficiency of the two indicators.

Data Gathering Procedure

The researchers adhered to established study protocols throughout the whole data collection process. First, a letter of permission authorizing the conduct of the study was addressed to the school principal. After securing permission, orientation activities were conducted to help prospective participants understand the study. Interested participants were then determined and listed after the orientation activity. Only then were informed consent forms given and collected accordingly. If the participant was a minor, they were also given a parent consent form. That participant could only partake in the study if a parent or guardian affixed their signature, consenting the minor to participate. After receiving the forms, survey questionnaires were handed out to the respondents. After giving them ample time, the answered questionnaires were collected and analyzed.

On the other hand, developing the software started with a plan. This included a data flow diagram, which served as the blueprint of the software for its commands and functions. Data modeling was also done for the database. After generating the necessary blueprints, the researchers then collected the raw data needed for the database. They first gave a letter of permission to the principal and then to the school president, granting access to basic information necessary for software development. After securing their permission, a letter was then given to the librarian and the registrar, granting the collection of library user data and book data. Having obtained the necessary information, the database of the software, which must contain the information of library users and books, was created. Data was transferred and stored in the database along with its creation. Meanwhile, for the software interface, the researchers started to code for the front end and back end. The software was then finished after debugging and successfully running the code.

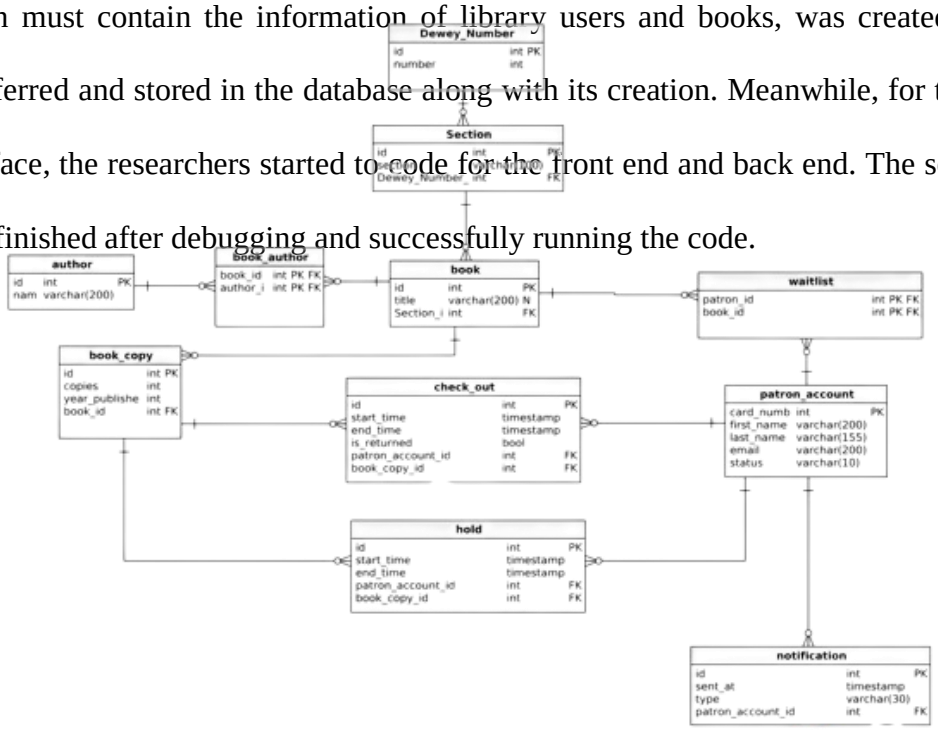

Figure 3. Database Modelling Diagram

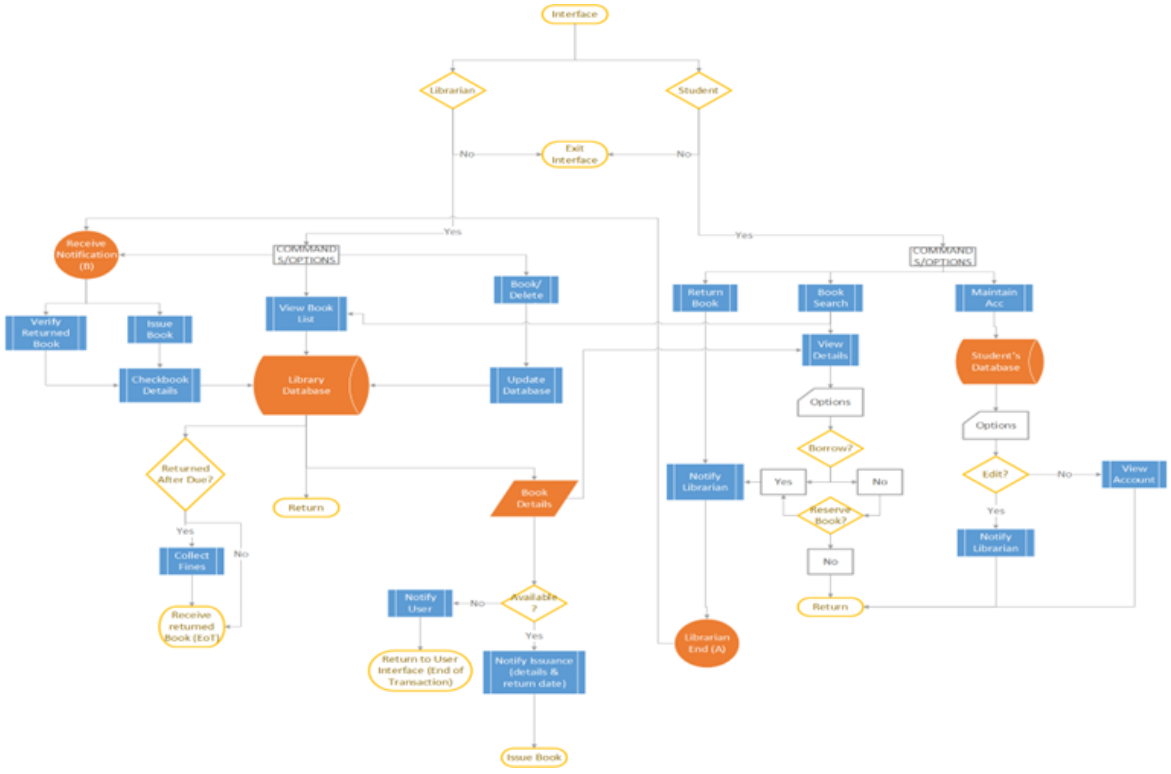

Figure 4. Data Flow Diagram for Library System

Ethical Considerations

One of the most important rules that researchers must follow in their work is ethics. Planning a research study, protecting information collection, responsibility for protecting participants by maintaining privacy and confidentiality, and avoiding plagiarism should all be considered to maintain ethical considerations throughout the conduct of a study (Resnik, 2020).

Specifically, the researchers aimed to achieve the mentioned ethical considerations through the use of informed consent forms and parent consent forms, especially for respondents underage. Informed consent is a fundamental principle in research ethics, ensuring that participants are fully informed about the research process and can give their

consent before participating, promoting a voluntary and ethical approach to research (University of Oxford, 2021). During data gathering, informed consent forms together with the parent consent forms, once signed, ensured that information disclosed and received by both parties would remain confidential. Moreover, avoiding plagiarism was manifested through proper citation and referencing and paraphrasing the idea from other credible sources.

During the course of data collection, the research team conducted visits to various classrooms in order to solicit participants for the study. During these interactions, the researchers provided an overview of the research objectives and elucidated the potential benefits of participation to prospective respondents. Subsequently, individuals expressing interest in taking part were invited to complete a questionnaire, following which an Informed Consent Form (ICF) was distributed. In their research, Kılınç and Firat (2017) explored the valuable insights provided by field experts regarding strategies for optimizing the collection of online data and encouraging greater voluntary participation. This step was undertaken exclusively with those who volunteered to partake in both the pre-test and post-test phases of the study. It is pertinent to note that participants were apprised of their right to withdraw from the study at any stage, and their voluntary consent to participate was duly obtained.

In the pursuit of safeguarding participant confidentiality, the researcher adhered to stringent measures wherein participant names remained undisclosed, with the utilization of anonymized codes to represent respondents. In the context of confidentiality, it was essential to uphold respect for individuals, as personal data had the potential for deliberate misuse. Moreover, the inadvertent disclosure of sensitive information could be not only unpleasant

but also detrimental, even in the absence of intentional harm (National Research Ethics Committees, 2015). Data acquired during the study was exclusively stored within a secured electronic repository, confined solely to the confines of a designated laptop. Access to this repository was meticulously restricted and limited solely to authorized personnel, including research team members and advisors. These protocols served to fortify the confidentiality of participant identities and research findings, thus upholding the ethical imperatives inherent within scholarly inquiry.

Data privacy held significance as it preserved personal integrity, fostered confidence in digital interactions, and safeguarded the fundamental rights of individuals (Tobin, 2024). In adherence to ethical principles, the research diligently safeguarded the privacy of the respondents by securely managing their data. This practice was integral to upholding the trust and integrity of the research process. Measures were implemented to prevent unauthorized access to sensitive information, thus ensuring the confidentiality and anonymity of the participants. By prioritizing ethical considerations, the research ensured that the rights and dignity of all individuals involved were respected and upheld.

That being stated, the researchers were very concerned with following the ethical considerations in performing the research in order to assure the validity and authenticity of the data acquired. Furthermore, such factors played an important role in assuring respondents that their anonymity and the confidentiality of their data were the researchers' top priorities, hence increasing their trust in the researchers.

Data Analysis

Each set of data gathered was analyzed using appropriate statistical tools to address the research questions and interpret the results. For the demographic profile of the respondents, frequency and percentage distribution were utilized to determine how frequently certain similar groups appeared in the study.

The data and results gathered to answer the second and third research questions were grouped according to sex, age, and year level. They were analyzed using descriptive statistics, specifically the mean and standard deviation. Both were used to determine the average of the respondents' rated scores, which also determined their satisfaction levels upon having experienced using both manual and automated systems. Meanwhile, the standard deviation as it represents data variation, took into account the deviations of the observed values from the mean (Lee, In, Lee, 2015). Hence, the standard deviation is lower when the observed data has low variability and are widely distributed about the mean value. This will establish the reliability of the answers made by the respondents' regarding their satisfaction with the two systems.

Table 1. Table Interpretation on the Level of Satisfaction of the Library Users in Using Manual System

Range of Means	Description	Interpretation
1.00 - 1.80	Strongly Agree	The library users are very satisfied of the manual system of the library.
1.81 - 2.60	Agree	The library users are satisfied of the manual system of the library.
2.61 - 3.40	Maybe	The library users are neutrally satisfied of the manual system of the library.
3.41 - 4.20	Disagree	The library users are unsatisfied of the manual system of the library.
4.21 - 5.00	Strongly Disagree	The library users are very unsatisfied of the manual system of the library.

Table 2. Table Interpretation on the Level of Satisfaction of the Library Users in Using Automated System

Range of Means	Description	Interpretation
1.00 - 1.80	Strongly Agree	The library users are very satisfied of the automated system of the library.
1.81 - 2.60	Agree	The library users are satisfied of the automated system of the library.
2.61 - 3.40	Maybe	The library users are neutrally satisfied of the automated system of the library.
3.41 - 4.20	Disagree	The library users are unsatisfied of the automated system of the library.
4.21 - 5.00	Strongly Disagree	The library users are very unsatisfied of the automated system of the library.

Lastly, to answer the fourth research question, paired t-tests were employed to analyze the significant difference between the level of satisfaction of students in using manual and automated systems of the lending services in the library. In this case, this statistical tool was suited to analyze the data because the same group of students was being measured before and after the intervention, and their scores were paired. These statistical tools were chosen based on their appropriateness in analyzing and summarizing the data for each research question. They provided quantitative measures that was used to objectively evaluate the demographic profile and satisfaction levels of library patrons before and after implementing the automated system.

To ascertain the statistical significance of the disparity between the population means (Minitab, 2023), juxtapose the obtained p-value with the predetermined significance level. Typically, a significance level denoted as α or alpha, set at 0.05, serves as a common benchmark. A significance level of 0.05 signifies a 5% probability of erroneously concluding the existence of a difference when, in fact, no difference exists. If the p-value is less than or equal to α, typically 0.05, it indicates that the observed difference between the groups is statistically significant. Conversely, if the p-value exceeds α, it suggests that there is insufficient evidence to reject the null hypothesis, implying a lack of statistical significance in the observed difference. This analysis aids in understanding the significance of the relationship between the variables under examination and informs subsequent conclusions drawn from the study.

Chapter 3

RESULTS AND DISCUSSION

This chapter encompasses the exposition, tabulation, analysis, and interpretation of the data amassed during the course of this inquiry. The arrangement of the presentation adheres to the sequential delineation of the Problem Statements articulated in Chapter 1.

Research Question #1: What is the demographic profile of library patrons in terms of sex, age and year level?

Table 3: Demographic Profile of the Respondents

Sex	**Valid**	**Frequency**	**Percent**
	Female	**175**	**74. 47%**
	Male	**60**	**25.53%**
	TOTAL	**235**	**100%**
Age	**13 -15**	**51**	**21.71%**
	16 - 19	**181**	**77.02%**
	Unidentified	**3**	**1.28%**
	TOTAL	**235**	**100%**
Year Level	**9**	**33**	**14.04%**
	10	**32**	**13.62%**
	11	**92**	**39.15%**
	12	**78**	**33.19%**
	TOTAL	**235**	**100%**

Table 3 displays the demographic profile of respondents categorized by sex, age and year level with 235 respondents. With regard to sex, 175 were female with a percentage of

74.47% from the total respondents and 60 of the respondents are male having a percentage of 25.53%. From the results of profiling, it can be inferred that most library users are female in comparison with males.

As for the age, 51 of the respondents' answer ranges from 13 - 15 (21.71%) of the sample population. For the 16-19 age bracket, there are 181 responses (77.02%) and 3 (1.28%) are unidentified having a total number of 235 responses. According to the data, it can be deduced that most respondents falls in the 16-19 age bracket. It is then followed by the age range 13-15 with the least number of respondents neglecting 3 unidentified ages. In terms of year level, 33 (14.04%) of the respondents are grade 9, 32 (13.62%) of the respondents are grade 10, 92 (39.15%) of the respondents are grade 11, and 78 (33.19%) of the respondents are grade 12. Accordingly most respondents are grade 11 having the largest number, followed by grade 12, grade 9 and lastly grade 10.

The results of profiling of respondents with regards to sex contradicts the study of Nunekpeku (2019) entitled "Establishing Clients' Satisfaction Levels with Automated Library Based Services: A Case Study at University of Cape Coast Library, Ghana" where 70.8% of their respondents were male and 29.2% are female implying that males are heavy users of library resources (Nunekpeku, 2019; Bassi and Camble, 2011; Manda and Mukangara, 2007; Bar-Ilan et al., 2003).

With regards to the age of respondents, it portrays similar results to Younus, Abdullah and Hamid's (2021) study entitled "A Study of Students' Satisfaction with Resources and Services in School Libraries in the Punjab, Pakistan" where in majority of their respondents were ages (13-14) in between the given age range (11 - above 16 years

old). In the case of the results from the data in the table, 16 - 17 years old, which is the largest age group who are respondents of the study, is in between the study's data range of 13 - 19 years old.

Research Question #2: What is the level of satisfaction of the library users with the borrowing and browsing services of the library using a manual system when grouped according to sex, age and year level?

Table 4: Level of Satisfaction of Library Users of the Library Manual System

Profiling		Mean	Standard Deviation	Description	Interpretation
Sex	Female	3	1	Maybe	Neutrally Satisfied
	Male	3	1	Maybe	Neutrally Satisfied
Age	13 - 15	3	1	Maybe	Neutrally Satisfied
	16 -19	3	1	Maybe	Neutrally Satisfied
	Unidentified	2	1	Agree	Satisfied
Year Level	9	3	0.9	Maybe	Neutrally Satisfied
	10	3	0.59	Maybe	Neutrally Satisfied
	11	3	0.68	Maybe	Neutrally Satisfied
	12	3	0.76	Maybe	Neutrally Satisfied

Table 4 displays the user's satisfaction with the library services. Specifically, males and females have an equal resulting mean of 3 on their satisfaction with the manual system of browsing and borrowing services with a standard deviation of 1 for both sexes. This

means that both males and females were not sure if they were satisfied or not and the variability of their answers are low.

With regards to age, the resulting mean of 13 to 15 and 16 to 19 are both 3 with a standard deviation of 1, agreeing that the manual system meets their satisfaction. This indicates uncertainty about their satisfaction level with the manual services and low variability of answers. The majority of the ages are undecided about their satisfaction with the manual system services of the library while the ages marked as unidentified has a mean score of 2 with a standard deviation of 1. With regards to year level, which is composed of grades 9-12, the satisfactory level of the manual system services results in 3 or "maybe" with a standard deviation of 0.9, 0.59, 0.68 and 0.76 respectively in increasing year level highlighting the inherent complexity and uncertainty often present in scientific inquiry.

From the given data above, there are similar findings that interpret that both sexes provide identical results on how they comprehend their satisfaction level of the manual service. According to Younus, Abdullah, and Hamid (2021), the distribution of mean results for males is 28.285 and 29.159 for females. This indicates that there is a short gap between the satisfaction levels of manual systems based on their sex.

In addition, in terms of age and year level, the resulting mean is nearly similar to the study of Park O.N. (2022) which studies the satisfaction of teens ages 13 - 18 years old towards manual library services. The overall satisfaction of teens in the school of the library services garnered the highest resulting mean of 3. 96 respondents. According to their mode and table of interpretation, the given study has met the satisfaction of the library users. However, the results presented above have a mean of 3 meaning neither satisfied nor

dissatisfied and may have the tendency to increase and reach satisfactory same with the study used for cross referencing or the other way around.

Research Question #3: What is the level of satisfaction of the library users with the borrowing and browsing services of the library using automated system when grouped according to sex, age and year level?

Table 5: Level of Satisfaction of Library Users with the Automated System

Profiling		Mean	Standard Deviation	Description	Interpretation
Sex	Female	1.71	0.56	Strongly Agree	Very Satisfied
	Male	1.94	0.60	Agree	Satisfied
Age	13 - 15	1.63	0.58	Strongly Agree	Very Satisfied
	16-19	1.81	0.58	Agree	Satisfied
	Unidentified	1.63	0.35	Strongly Agree	Very Satisfied
Year Level	9	1.71	0.54	Strongly Agree	Very Satisfied
	10	1.48	0.53	Strongly Agree	Very Satisfied
	11	1.85	0.64	Agree	Satisfied
	12	1.81	0.51	Agree	Satisfied

Table 5 shows the level of satisfaction of library users in using the automated system of the book borrowing and browsing services offered by the library in terms of sex, age, and year level. In terms of sex, the satisfaction of the male respondents has a mean of 1.94 with a standard deviation of 0.60 while the female respondents have a mean of 1.71 with a

standard deviation of 0.56. Although the female respondents accumulated a lesser mean than the male respondents, such results indicate that both male and female respondents have an average level of satisfaction on the automation of the library services.

In terms of year level, the grade 9 respondents' satisfaction has a mean of 1.71 with a standard deviation of 0.54. In contrast, the grade 10 respondents have a corresponding mean score of 1. 48 with a small gap in standard deviation of 0.53 compared to grade 9. Moreover, the satisfaction of the grade 11 respondents has a corresponding mean of 1.85 with a standard deviation of 0.64 which is the highest value for the standard deviation among the year levels. The grade 12 respondents, on the other hand, have a mean score of 1.81 with the least standard deviation value of 0.51 compared to other year levels. These results imply that grade 10 respondents have a higher level of satisfaction among all the grade levels. This is followed by the grade 9, 12, and 11 respondents. However, based on the table of interpretation, the mean score of all grade levels shows that the respondents have a high to average level of satisfaction with the library regardless of grade level.

The mean satisfaction scores for respondents of age 13 - 15 is 1.63 same as well with the unidentified ages with a standard deviation of 0.58 and 0.35 for each of the bracket respectively interpreted as very satisfied. On the other hand, respondents of age 16-19 have a mean score of 1.81 and a standard deviation of 0.58 interpreted as satisfied. However, despite these age-based differences, the overall interpretation of the satisfaction scores indicates that respondents generally have a high to average level of satisfaction with the library, regardless of age.

The satisfactory results of respondents from the data in terms of sex align with the study of Ansar, Shahzad, and Siddique (2021) about the impact of automation on users' perception of GCU Library Faisalabad library services. The study reported high and almost the same mean scores of male and female respondents. This means that both are highly satisfied with the library services being automated.

Meanwhile, the satisfaction level of ages 18 - 19 and above is contradictory to the trend exhibited by undergraduates of the same age in the study of Liu and Luo (2015) regarding their overall experience of digital library use. The study found that graduate students' satisfaction with digital libraries is significantly higher than undergraduates, with over 80% satisfied compared to 60% of undergraduate respondents. Notably these results are aligned with the resulting mean of grades 11 and grade 12 of age considerably undergraduates who were satisfied enough with the rendered automated services in the library.

Research Question #4: Is there a significant difference between the level of satisfaction of library users in using the manual and automated system of the book borrowing and browsing services offered by the library?

Table 6. Difference in the Satisfaction Level of Library Users when Using the Manual and Automated System of the library service

	Mean (Manual System)	**Mean (Automated Borrowing System)**	**t value**	**p value**	**Description**
Variables	3	1.77	15.76	2.78049E-39	**Significantly Different**

The disparity between library patrons' satisfaction levels with the automated and manual system for the book borrowing services offered by the library is shown in table 6. The paired t-test resulted to a p value of 2.78049E-39 which indicates a high significant difference between the two. Specifically, from the overall mean score, the automated system garnered the lower number of mean (1.77) which means higher satisfactory rate than the manual system which garnered a mean of 3. Thus, there is a higher satisfaction with the use of automated systems than the manual system in comparing the overall mean of the two variables and the resulting significant differences of the data.

The data aligns with a 2014 study by Anas, Iqbal, and Ahmed, cited by Ajani and Buraimo (2021), which examined the effects of automation on library management services in four management institutes in Aligarh, India. The study found that most professional librarians believe automation has improved library services, while 85% of library users believe automated systems are superior to traditional manual systems.

Chapter 4

CONCLUSIONS AND RECOMMENDATIONS

This chapter included the study's conclusion of its results and recommendations that were developed.

Conclusion

In essence, the results of the study discovered that there is a significant difference in the satisfaction of the students between manual system and automated system in terms of their sex, age and grade level. With that being said, the manual system presents a notable difference when compared to an automated system. Further, the study's results indicate that manual borrowing system have a significant difference between automated borrowing system based on the student's satisfaction inside the library.

Specifically, the results showed that manual borrowing system have an average level when it comes to the satisfaction of the students, and high level of satisfaction when it comes to the automated borrowing system of the students. With this the researchers of this investigation accept the alternative hypothesis which stated that there is a significant difference between the level of satisfaction of students in book and borrowing services offered by the library using the manual and automated system. Considering that there is a substantial difference between the two variables of the study, it can be concluded that the automation of the borrowing system inside the library is one of the ways to improve the library services.

Recommendations

The study reveals a significant difference in user satisfaction with manual and automated book borrowing and browsing services offered by the library, and suggests the following recommendations:

The school may fully implement the automated borrowing system software in the computer library to minimize paperwork of librarians and queues in library taking up too much space due to its efficient and fast processing. In order to harness efficiency in using software, it would also be best to have a training or orientation for librarians on how to use the system and further hone their ICT skills for maintenance of software. It may also help library users locate certain books easily through organization of books according to Dewey decimal system by shelves.

Further, this research data can serve as a foundation or guide for future researchers when looking for other indicators to measure library user satisfaction. They can also add supporting evidence to strengthen and cover the varying profile of respondents. Since the study gave limited tries for the respondent to use the software, it is suggested to add more number of tries for the respondents to get exposed with the system. Most importantly, the researchers may add other features with the developed system or may focus on other services such as developing a notification system, tabulation system for book fines and user history or log.

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HOLY CROSS COLLEGE OF CALINAN, INC
Davao- Bukidnon Highway, Calinan Poblacion, Davao City

January 17, 2024

Sr. Cherie Eloisa Garrote, PM
School President
Holy Cross College of Calinan, Inc.

Dear Sister Garrote,

Greetings of peace and solidarity!

We are writing this letter to inform you that we will be conducting a research study entitled: **ELEVATING SATISFACTION: LIBRARY SYSTEM IMPACT ON USER MATERIAL ACCESS AND SATISFACTION** as the major requirement in our Practical Research 1 and 2. The objective of our study is to compare the satisfaction level of the library users between the borrowing system changed from a manual to an automated borrowing system. Questionnaires will be used to gather data from the students of the Basic Education Department. The result of the study will be part of our contribution to improve the satisfaction and impact of material access inside the library.

In line of this, we would like to ask permission to conduct a respondents' orientation and administer the questionnaire on January 3-5 during our research time. After the said course, we would like to further ask permission to use the Basic Education Library computer for the installation of our software. Also, confidentiality of the information obtained is assured as there will be no other individuals who have access on them except the researchers and their research adviser.

Participation in this study is completely voluntary, therefore, participants are free to withdraw from the study at any time without moral obligation to the researcher and to the school. Further the participants have the right to verify the data to be included in the final manuscript.

Should you wish to know more about the study, please feel free to contact:

Aurora Faith L. Lancheta at auroralancheta@gmail.com or 09631261726

Thank you very much.

Very truly yours,

Aurora Faith L. Lancheta
Researcher

Rigel Yestin B. Daggon
Researcher

Allyssa Marielle N. Caluma
Researcher

Shine D. Hernane
Researcher

Lennard Jan S. Polentinos
Researcher

Maria Alyzandra B. Agbunag
Researcher

Noted by:

Ms. Valerie Joy T. Escolano
Research Adviser

Approved by:

Sr. Cherie Eloisa Garrote, PM
School President

Complaints about this research:

The Holy Cross College of Calinan requires that all the participants are informed and if they have complaints regarding the manner in which the research is conducted, it may be given to the researcher, or if an independent person is preferred, to the Research and Publication Head, Research Office, Holy Cross College of Calinan with the following numbers: 295-0797 or 09491985644.

HOLY CROSS COLLEGE OF CALINAN, INC
Davao- Bukidnon Highway, Calinan Poblacion, Davao City

December 15, 2023

Dr. Ma. Corazon C. Sunga
Basic Education Principal
Holy Cross College of Calinan, Inc.

Dear Ma'am,

Greetings of peace and solidarity!

We are writing this letter to inform you that we will be conducting a research study entitled: **ELEVATING SATISFACTION: LIBRARY SYSTEM IMPACT ON USER MATERIAL ACCESS AND SATISFACTION** as the major requirement in our Practical Research 1 and 2. The objective of our study is to compare the satisfaction level of the library users between the borrowing system changed from a manual to an automated borrowing system. Questionnaires will be used to gather data from the students of the Basic Education Department. The result of the study will be part of our contribution to improve the satisfaction and impact of material access inside the library.

In line of this, we would like to ask permission to conduct a respondents' orientation and administer the questionnaire on January 3-5 during our research time. After the said course, we would like to further ask permission to use the Basic Education Library computer for the installation of our software. Also, confidentiality of the information obtained is assured as there will be no other individuals who have access on them except the researchers and their research adviser.

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RECEIVED BY :
Dec. 15, 2023

Should you wish to know more about the study, please feel free to contact:

Aurora Faith L. Lancheta at auroralancheta@gmail.com or 09631261726

Thank you very much.

Very truly yours,

Aurora Faith L. Lancheta
Researcher

Rigel Yestin B. Daggon
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Allyssa Marielle N. Caluma
Researcher

Shine D. Hernane
Researcher

Lennard Jan S. Polentinos
Researcher

Maria Alyzandra B. Agbunag
Researcher

Noted by:

12/15/2023
Ms. Vallerie Joy T. Escolano
Research Adviser

Approved by:

Dr. Ma. Corazon C. Sunga
Basic Education Principal

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HOLY CROSS COLLEGE OF CALINAN,INC
Davao- Bukidnon Highway, Calinan Poblacion, Davao City

December 20, 2023

Merry Angel T. Jala
Basic Education Registrar
Holy Cross College of Calinan

Dear Ma'am,

Greetings of peace and solidarity!

We are writing this letter to inform you that we will be conducting a research study entitled: **ELEVATING SATISFACTION: LIBRARY SYSTEM IMPACT ON USER MATERIAL ACCESS AND SATISFACTION** as the major requirement in our Practical Research 1 and 2. The objective of our study is to compare the satisfaction level of the library users between the borrowing system changed from a manual to an automated borrowing system is changed from a manual to an automated borrowing system. The result of the study will be part of our contribution to improve the library borrowing system of the school.

In lieu of this, we would like to ask permission to get from your office the total number of enrollees under the current school year 2023-2024 from grades 9 to 12 as well as their names and school id. Also, confidentiality of the information obtained is assured as there will be no other individuals who have access on them except the researchers and their research adviser.

Should you wish to know more about the study, please feel free to contact:

Aurora Faith Lancheta at auroralancheta@gmail.com or 09631261726

Thank you very much.

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Aurora Faith L. Lancheta
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Lennard Jan S. Polentinos
Researcher

Maria Alyzandra B. Agbunag
Researcher

Noted by:

Ms. Valerie Joy T. Escolano
Research Adviser

Approved by:

Merry Angel T. Jala
Basic Education Registrar

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HOLY CROSS COLLEGE OF CALINAN, INC
Davao- Bukidnon Highway, Calinan Poblacion, Davao City

December 15, 2023

Liezl O. Baratas
Basic Education Librarian
Holy Cross College of Calinan, Inc.

Dear Ma'am,

Greetings of peace and solidarity!

We are writing this letter to inform you that we will be conducting a research study entitled: **ELEVATING SATISFACTION: LIBRARY SYSTEM IMPACT ON USER MATERIAL ACCESS AND SATISFACTION** as the major requirement in our Practical Research 1 and 2. The objective of our study is to compare the satisfaction level of the library users between the borrowing system changed from a manual to an automated borrowing system. Questionnaires will be used to gather data from the students of the Basic Education Department. The result of the study will be part of our contribution to improve the satisfaction and impact of material access inside the library.

In line of this, we would like to ask permission to use the Basic Education Library computer for the establishment of our database and the installation of our software for the whole duration of our research.

Participation in this study is completely voluntary, therefore, participants are free to withdraw from the study at any time without moral obligation to the researcher and to the school. Further the participants have the right to verify the data to be included in the final manuscript.

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Lennard Jan S. Polentinos
Researcher

Maria Alyzandra B. Agbunag
Researcher

Noted by:

12/15/2023
Ms. Valerie Joyce T. Escolano
Research Adviser

Approved by:

Liezl O. Baratas
Basic Education Librarian

Complaints about this research:

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HOLY CROSS COLLEGE OF CALINAN, INC
Davao- Bukidnon Highway, Calinan Poblacion, Davao City

December 15, 2023

Melina C. Gonzales, Ed.D
SHS Focal Person
Holy Cross College of Calinan, Inc.

Dear Dr. Gonzales,

Greetings of peace and solidarity!

We, Aurora Faith L. Lancheta, Rigel Yestin B. Daggon, Allyssa Marielle N. Caluma, Lennard Jan S. Polentinos, Shine D. Hernane and Maria Alyzandra B. Agbunag enrolled in the class of Practical Research 1 and 2 and conducting a research entitled: **ELEVATING SATISFACTION: LIBRARY SYSTEM IMPACT ON USER MATERIAL ACCESS AND SATISFACTION.** This study aims to compare the satisfaction level of the library users between the borrowing system of the library changed from a manual to an automated borrowing system and will attempt to gather the responses from the respondents toward the following questions:

1. What is the demographic profile of library patrons in terms of:
    1.1 sex;
    1.2 age; and
    1.3 year level?

2. What is the level of satisfaction of the library users with the borrowing and browsing services of the library using manual system when grouped according to:
    2.1 sex;
    2.2 age; and
    2.3 year level?

3. What is the level of satisfaction of the library users with the borrowing and browsing services of the library using automated system when grouped according to:
    3.1 sex;
    3.2 age; and
    3.3 year level?

4. Is there a significant difference between the level of satisfaction of library users in using the manual and automated system of the book borrowing and browsing services offered by the library?

May we request your kind assistance in validating the questionnaire of the research study. Would you please fill out the attached validation sheet and give suggestions/comments for the improvement of our questionnaire.

Should you wish to know more about the study, please feel free to contact:

Aurora Faith Lancheta at auroralancheta@gmail.com or 09631261726

Thank you very much for your help.

Very truly yours,

Aurora Faith L. Lancheta
Researcher

Rigel Yestin B. Daggon
Researcher

Allyssa Marielle N. Caluma
Researcher

Shine D. Hernane
Researcher

Lennard Jan S. Polentinos
Researcher

Maria Alyzandra B. Agbunag
Researcher

Noted by:

12/15/2023

Ms. Valleriè T. Escolano
Research Adviser

Approved by:

Melina C. Gonzales, Ed.D
SHS Focal Person

HOLY CROSS COLLEGE OF CALINAN, INC
Davao- Bukidnon Highway, Calinan Poblacion, Davao City

December 15, 2023

Cherry Rose S. Tacay
Social Studies Teacher
Holy Cross College of Calinan, Inc.

Dear Ms. Tacay,

Greetings of peace and solidarity!

We, Aurora Faith L. Lancheta, Rigel Yestin B. Daggon, Allyssa Marielle N. Caluma, Lennard Jan S. Polentinos, Shine D. Hernane and Maria Alyzandra B. Agbunag enrolled in the class of Practical Research 1 and 2 and conducting a research entitled: **ELEVATING SATISFACTION: LIBRARY SYSTEM IMPACT ON USER MATERIAL ACCESS AND SATISFACTION.** This study aims to compare the satisfaction level of the library users between the borrowing system of the library changed from a manual to an automated borrowing system and will attempt to gather the responses from the respondents toward the following questions:

1. What is the demographic profile of library patrons in terms of:
    1.1 sex;
    1.2 age; and
    1.3 year level?

2. What is the level of satisfaction of the library users with the borrowing and browsing services of the library using manual system when grouped according to:
    2.1 sex;
    2.2 age, and
    2.3 year level?

3. What is the level of satisfaction of the library users with the borrowing and browsing services of the library using automated system when grouped according to:
    3.1 sex;
    3.2 age; and
    3.3 year level?

4. Is there a significant difference between the level of satisfaction of library users in using the manual and automated system of the book borrowing and browsing services offered by the library?

May we request your kind assistance in validating the questionnaire of the research study. Would you please fill out the attached validation sheet and give suggestions/comments for the improvement of our questionnaire.

Should you wish to know more about the study, please feel free to contact:

Aurora Faith Lancheta at auroralancheta@gmail.com or 09631261726

Thank you very much for your help.

Very truly yours,

Aurora Faith L. Lancheta
Researcher

Rigel Yestin B. Daggon
Researcher

Allyssa Marielle N. Caluma
Researcher

Shine D. Hernane
Researcher

Lennard Jan S. Polentinos
Researcher

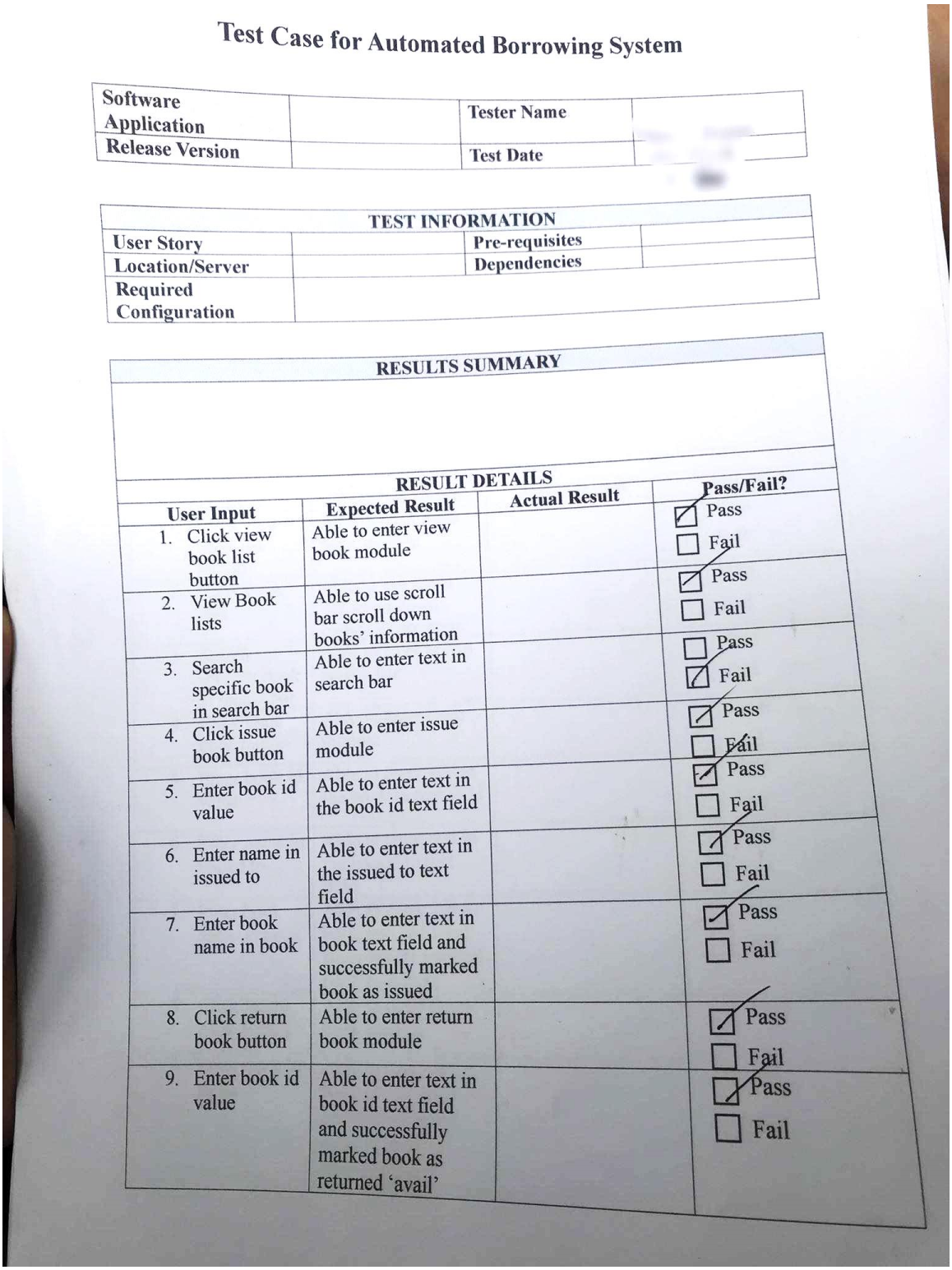
Maria Alyzandra B. Agbunag
Researcher

Noted by:

12/15/2023
Vallerie Joy T. Escolano
Research Adviser

Approved by:

Cherry Rose S. Tacay
Social Studies Teacher



Test Case for Automated Borrowing System

Software Application		**Tester Name**	
Release Version		**Test Date**	

TEST INFORMATION			
User Story		**Pre-requisites**	
Location/Server		**Dependencies**	
Required Configuration			

RESULTS SUMMARY

RESULT DETAILS

User Input	Expected Result	Actual Result	Pass/Fail?
1. Click view book list button	Able to enter view book module		☑ Pass ☐ Fail
2. View Book lists	Able to use scroll bar scroll down books' information		☑ Pass ☐ Fail
3. Search specific book in search bar	Able to enter text in search bar		☐ Pass ☑ Fail
4. Click issue book button	Able to enter issue module		☑ Pass ☐ Fail
5. Enter book id value	Able to enter text in the book id text field		☑ Pass ☐ Fail
6. Enter name in issued to	Able to enter text in the issued to text field		☑ Pass ☐ Fail
7. Enter book name in book	Able to enter text in book text field and successfully marked book as issued		☑ Pass ☐ Fail
8. Click return book button	Able to enter return book module		☑ Pass ☐ Fail
9. Enter book id value	Able to enter text in book id text field and successfully marked book as returned 'avail'		☑ Pass ☐ Fail

SR (9)

HOLY CROSS COLLEGE OF CALINAN, INC
Davao- Bukidnon Highway, Calinan Poblacion, Davao City

ELEVATING SATISFACTION: LIBRARY SYSTEM IMPACT ON USER MATERIAL ACCESS AND SATISFACTION

I, _____, agree to participate in the study in which purpose is to enhance user satisfaction through developing an automated library borrowing system for material access. I am fully aware that the study will be conducted by Aurora Faith L. Lancheta, Rigel Yestin B. Daggon, Allyssa Marielle N. Caluma, Lennard Jan S. Polentinos, Shine D. Hernane and Maria Alyzandra B. Agbunag and will be supervised by Ms. Vallerie Joy T. Escolano, their research adviser.

Before the onset of the study, the researchers explained to me the nature and extent of my involvement in this project. Also, during the orientation, participants were informed of the following:

a. that there are no known risks in our participation.
b. that my participation will involve answering the given survey questionnaires about the Elevating Satisfaction: Library System Impact on User Material Access and Satisfaction.
c. that the information they obtained from me will be kept confidential and that only them and their research adviser will have access on it; and
d. that my name and the organization where I am connected will never be mentioned in the final report.

In this study, my participation is entirely voluntary, and I am free to withdraw at any time without affecting my relationship with the researchers and Holy Cross College of Calinan.

For possible queries and complaints regarding the conduct of the study, contact details of the researchers and their adviser, Ms. Vallerie Joy T. Escolano are provided.

_____ 01/24/24
Participant's signature Date

_____ 01/24/24
Researcher Leader's Signature Date

Complaints about this research:

This project has been approved by their research adviser. Should you have concerns about your rights as a participant in this research, or should you have a complaint about the manner in which the research is conducted, please feel free to contact Miss Vallerie T. Escolano through her number 09083357966 or email her at evalleriejoy@gmail.com. Alternatively, you can direct your queries to the school's Research and Publication Officer through number: 2950797.

HOLY CROSS COLLEGE OF CALINAN, INC
Davao-Bukidon Highway, Calinan Poblacion, Davao City

INFORMED PARENTAL CONSENT FORM

ELEVATING SATISFACTION: LIBRARY SYSTEM IMPACT ON USER MATERIAL ACCESS AND SATISFACTION

Dear Mr/Mrs _____,

Introduction: The purpose of this form is to provide you (as the parent of a prospective research study participant) information that may affect your decision as to whether or not to let your child participate in this research study. Read the information below and ask any questions you might have before deciding whether or not to give your permission for your child to take part. If you decide to let your child be involved in this study, this form will be used to record your permission.

Description: This study will examine the level of satisfaction of students who use the library having experienced manual system of borrowing books and the automated system in which they will use in this research. Your child's identity will not be revealed to anyone, the principal investigator(s) and her designated research associates.

Confidentiality: Children's answers will not be associated with their name. The record of your child's participation will be destroyed after it has been transcribed.

Risks & Benefits: There are no risks to your child's safety. The questionnaire raises no sensitive or controversial issues and does not contain elements typically frightening to children. Because the survey asks children about their preferences, improvement in the library will be more accurate to attend to your child's needs in learning.

Freedom to Withdraw or Refuse Participation:
I understand that my child has the right to stop answering the survey questionnaire at any time without prejudice from the researchers.

Grievance Procedure: If I have any concerns or am dissatisfied with any aspect of this study, I may report my grievances anonymously to the Research and Publication Office through the following numbers: 295-0797 or 09491985644.

For questions, please feel free to ask the researchers any questions before signing the consent form or at any time during or after the study.

Lead Researcher: Aurora Faith L. Lancheta Contact Details: 09631261726

Research Adviser: Ms. Vallerie Joy T. Escolano Contact Details: 09083357966

Informed Consent Statement

I, _____, give permission for my child, _____ to participate in the research project entitled, "**ELEVATING SATISFACTION: LIBRARY SYSTEM IMPACT ON USER MATERIAL ACCESS AND SATISFACTION**". The study has been explained to me and my questions answered to my satisfaction. I understand that my child's right to withdraw from participating or refuse to participate will be respected and that his/her responses and identity will be kept confidential. I give this consent voluntarily.

Parent/Guardian Name and Signature: _____ Date: 01/26/24

Lead Researcher's Name and Signature: Aurora Faith L. Lancheta Date: _____

HOLY CROSS COLLEGE OF CALINAN, INC.
Davao- Bukidnon Highway, Calinan Poblacion, Davao City

SURVEY QUESTIONNAIRE

ELEVATING SATISFACTION: LIBRARY SYSTEM IMPACT ON USER MATERIAL ACCESS AND SATISFACTION

We are carrying out an evaluation of user satisfaction in terms of automated library borrowing system integration. This is to improve circulation of books in the library through the use of technology which will help faculty and students to easily maximize their use of the library. Your response to this survey is crucial in providing the necessary information.

If you have any query about the questionnaire, please do not hesitate to approach any of the researchers. Your honest and sincere response and time given to answer the evaluation is greatly appreciated.

Thank you very much for your cooperation.

Instruction: Please check or supply the information needed in the space provided.

Name (Optional) _____

Part I: Demographic Profile

1. Sex

   [ ] Male [✓] Female

2. Age: 17 *(please specify)*

3. Year Level

   JHS:

   [ ] Grade 9 [ ] Grade 10

   SHS:

   [ ] Grade 11 [✓] Grade 12

Part II: Level of satisfaction of the library users of the book borrowing and browsing services of the library

Instruction: Please indicate your level of agreement in the following statements. Please check the column of your answer

1= Strongly Agree 2= Agree 3= Maybe 4=Disagree 5= Strongly Disagree

Manual Library Borrowing System					
	1	2	3	4	5
I am able to locate and retrieve specific resources quickly.		/			
It is easy to return borrowed books.		/			
Waiting time in borrowing books is short.			/		
Accessing printed library materials has been convenient.		/			
The system positively contributed to my learning and research activities.		/			
The library system encourages me to borrow books frequently.		/			
High-demand library resources are readily available.		/			
Due date reminders are given effectively.		/			
I feel adequately supported while using the system.		/			
I am satisfied with the lending services offered by the library		/			

Part II: Level of satisfaction of the library users of the book borrowing and browsing services of the library

Instruction: Please indicate your level of agreement in the following statements. Please check the column of your answer.

1= Strongly Agree 2= Agree 3= Maybe 4=Disagree 5= Strongly Disagree

Automated Library Borrowing System					
	1	2	3	4	5
I am able to locate and retrieve specific resources quickly.	✓				
It is easy to return borrowed books.	✓				
Waiting time in borrowing books is short.	✓				
Accessing printed library materials has been convenient.	✓				
The system positively contributed to my learning and research activities.		✓			
The library system encourages me to borrow books frequently.			✓		
High-demand library resources are readily available.		✓			
Due date reminders are given effectively.		✓			
I feel adequately supported while using the system.		✓			
I am satisfied with the lending services offered by the library		✓			

Holy Cross College of Calinan, Inc
Davao-Bukidnon Highway, Calinan Pobalcion, Davao City

Research Assessment Tool and Validation Sheet

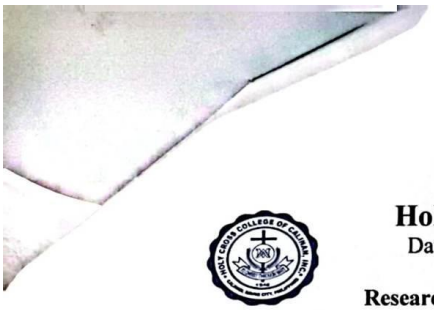
Name of Evaluator : MELINA C. GONZALES
Degree :
Position :
Institution :

To the Evaluator: Please check the appropriate box for your ratings.
POINT EQUIVALENT: 1 – Poor 2 - Fair 3 – Good 4 – Very Good 5 - Excellent

	Criteria/ Indicators	1	2	3	4	5
1	**CLARITY OF DIRECTIONS AND ITEMS** The vocabulary level, language structure and conceptual level of questions suit to level of respondents. The test directions and items are written in clear and understandable manner.			✓		
2	**PRESENTATION/ ORGANIZATION OF ITEMS** The items are presented and organized in logical manner.			✓		
3	**SUITABILITY OF ITEMS** The items appropriately represent the substance of the research. The questions are designed to determine the condition, knowledge, perception and attitudes that are supposed to be measured.			✓		
4	**ADEQUATENESS OF ITEMS PER CATEGORY** The items represent the coverage of the research adequately. The number of questions per area category is representative enough of all the question needed for the research.			✓		
5	**ATTAINMENT OF PURPOSE** The instrument as a whole fulfills the objectives for which it was constructed.			✓		
6	**OBJECTIVE** Each item question requires only one specific answer or measure only one behavior and no aspect of questionnaire suggest bias on the part of the researcher.			✓		
7	**SCALE AND EVALUATION RATING SYSTEM** The scale adapted is appropriate for the items.			✓		

Comments and Suggestions: Please see comments in the questionnaire

Signature Evaluator



Holy Cross College of Calinan, Inc

Davao-Bukidnon Highway, Calinan Pobalcion, Davao City

Research Assessment Tool and Validation Sheet

Name of Evaluator : TACAY, CHERRY ANN
Degree :
Position :
Institution :

To the Evaluator: Please check the appropriate box for your ratings.

POINT EQUIVALENT: 1 – Poor 2 - Fair 3 – Good 4 – Very Good 5 - Excellent

	Criteria/ Indicators	1	2	3	4	5
1	**CLARITY OF DIRECTIONS AND ITEMS** The vocabulary level, language structure and conceptual level of questions suit to level of respondents. The test directions and items are written in clear and understandable manner.					✓
2	**PRESENTATION/ ORGANIZATION OF ITEMS** The items are presented and organized in logical manner.					✓
3	**SUITABILITY OF ITEMS** The items appropriately represent the substance of the research. The questions are designed to determine the condition, knowledge, perception and attitudes that are supposed to be measured.					✓
4	**ADEQUATENESS OF ITEMS PER CATEGORY** The items represent the coverage of the research adequately. The number of questions per area category is representative enough of all the question needed for the research.					✓
5	**ATTAINMENT OF PURPOSE** The instrument as a whole fulfills the objectives for which it was constructed.					✓
6	**OBJECTIVE** Each item question requires only one specific answer or measure only one behavior and no aspect of questionnaire suggest bias on the part of the researcher.					✓
7	**SCALE AND EVALUATION RATING SYSTEM** The scale adapted is appropriate for the items.					✓

Comments and Suggestions: _____

TACAY, CHERRY ANN
Signature Evaluator

Raw Data

Manual Borrowing System

Respondents	Sex	Age	Year Level	QM1	QM2	QM3	QM4	QM5	QM6	QM7	QM8	QM9	QM 10
1	F	15	9	3	3	4	3	3	3	3	3	2	3
2	M	15	9	3	2	3	3	3	3	2	3	2	2
3	F	14	9	4	2	4	3	3	3	4	4	3	4
4	F	14	9	1	1	4	1	2	3	2	1	2	1
5	F	14	9	3	1	2	2	3	2	3	1	3	1
6	F	14	9	3	4	3	4	4	2	3	4	3	4
7	F	14	9	4	4	5	4	3	4	5	5	3	4
8	F	15	9	2	5	3	3	4	4	4	5	4	4
9	F	15	9	3	1	2	2	2	3	2	1	3	3
10	F	14	9	2	2	3	3	2	2	3	2	2	3
11	F	13	9	3	1	2	2	3	2	2	3	3	3
12	F	14	9	1	1	2	2	2	1	2	2	2	2
13	M	15	9	3	3	2	3	4	4	4	5	5	5
14	F	14	9	3	2	3	3	3	3	2	2	3	3
15	F	14	9	3	2	3	3	3	3	2	2	3	3
16	F	14	9	4	3	5	3	1	2	2	4	3	2
17	F	14	9	3	2	3	0	3	4	3	4	4	5
18	F	14	9	4	5	5	5	5	4	5	4	5	4
19	F	14	9	3	1	2	2	2	3	3	3	2	2
20	F	15	9	4	3	5	3	3	4	4	3	4	3
21	M	17	9	5	3	5	5	5	4	4	4	5	5
22	M	14	9	2	3	2	2	4	3	4	5	5	3

23	F	14	9	4	1	4	4	1	1	1	1	3	1
24	F	14	9	1	1	1	2	2	1	2	1	2	2
25	F	14	9	4	5	5	5	4	3	3	5	5	5
26	F	14	9	2	1	1	3	3	3	3	2	3	2
27	F	14	9	3	5	5	3	3	4	2	2	5	5
28	M	14	9	4	3	3	4	2	3	3	4	4	4
29	F	14	9	2	1	2	3	2	2	1	3	2	1
30	F	15	9	4	4	4	5	5	5	5	5	5	5
31	F	15	9	4	3	4	3	4	4	4	4	3	3
32	M	14	9	3	3	2	3	3	2	4	3	4	3
33	M	15	10	3	3	4	2	3	3	4	3	3	4
34	F	15	10	3	2	3	3	3	3	3	3	3	2
35	F	16	10	2	1	3	3	3	3	2	2	2	2
36	F	15	10	3	2	3	3	4	4	2	1	2	3
37	F	16	10	4	2	3	2	1	3	1	1	2	1
38	F		10	3	3	4	2	2	2	2	2	2	2

39	F	15	10	3	3	3	3		4	3	3	4	4
40	F	15	10	2	3	4	2	2	3	1	1	3	5
41	F	15	10	3	3	3	3	3	2	2	3	3	2
42	M	15	10	3		2	3	2	3	4	2	3	4
43	F		10	4	3	3	3	3	3	3	3	3	3
44	F	16	10	4	5	2	2	3	4	2	1	1	2
45	F	15	10	2	3	2	3	3	2	3	2	3	2
46	M	16	10	3	3	3	3	3	3	3	3	3	3
47	F	15	10	3	3	3	2	3	3	3	4	3	4
48	F	17	11	3	1	4	1	1	2	3	1	2	2
49	F	16	11	3	2	2	2	2	2	2	2	3	3
50	F	16	11	5	4	5	3	2	2	3	2	3	3
51	M	16	11	3	2	4	2	3	3	2	4	3	5
52	M	17	11	3	3	3	3	3	3	3	3	3	3
53	F	16	11	3	2	2	2	1	2	2	1	2	2
54	F	16	11	2	2	3	1	3	3	3	2	2	2
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56	M	16	11	3	5	3	3	3	3	2	3	3	3
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58	F	16	11	3	3	2	3	3	2	3	4	3	3
59	F	17	11	2	3	3	4	3	3	3	4	4	4
60	F	16	11	3	4	4	3	4	3	3	4	5	5
61	F	16	11	5	5	1	3	3		2	4	3	5
62	F	16	11	4	5	4	4	5	5	4	4	5	5
63	M	16	11	4	3	4	3	4	3	4	5	3	5

64	F	16	11	4	2	3	3	3	4	3	2	3	3
65	M	18	11	3	2	4	3	3	3		2	3	2
66	M	17	11	1	2	3	2	3	2	2	1	3	2
67	F	16	11	3	5	4	4	4	4	5	5	5	5
68	F	16	11	2	2	3	3	2	2	3	2	3	3
69	M	16	11	3	4	4	1	4	3	3	3	3	3
70	F	17	11	3	4	5	2	4	3	3	3	3	3
71	F	16	11	2	1	2	1	2	1	2	2	2	2
72	F	16	11	1	2	5	1	1	2	3	1	1	1
73	M	17	11	3	3	5	2	3	4	3	3	4	3
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76	F	19	11	5	5	3	2	4	3	2	3	4	3
77	F	17	11	4	2	3	2	2	3	3	2	3	3
78	F	16	11	4	3	3	3	2	3	4	4	4	3
79	M	17	11	3	2	2	3	2	2	3	4	2	2
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82	M	15	10	3	2	3	1	1	1	3	3	2	2
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84	F	16	10	3	4	2	3	4	2	4	4	4	3
85	F	15	10	4	1	3	2	2	1		2	2	4
86	F	15	10	2	1	3	2	2	2	3	2	2	3
87	F	16	10	4	3	3	5	4	3	3	5	3	3
88	F	16	10	3	2	3	4	2	2	3	1	2	1

89	F	15	10	3	1	3	3	2	1	3	1	2	1
90	F	16	10	5	5	4	4	5	5	3	4	4	4
91	F	16	10	4	2	3	5	4	3	4	2	4	3
92	M	15	10	3	2	3	3	4	2	2	3	2	2
93	F	15	10	3	3	4	4	2	2	3	3	3	3
94	F	16	10	3	2	2	3	3	2	2	1	2	2
95	F	16	11	3	1	1	3	2	2	3	2	3	1
96	F	17	11	4	1	4	3	1	1	2	1	1	1
97	M	16	11	3	4	2	4		3	2	3	2	2
98	F	16	11	3	4	3	3	5	4	4	3	4	4
99	F	16	11	3	3	4	3	3	3	2	3	3	3
100	F	16	11	4	2	3	3	3	4	3	3	3	2
101	F	16	11	3	4	3	3	2	2	3	3	3	2
102	F	16	11	3	2	4	5	3	3	3	5	2	3
103	F	17	11	3	4	4	4	5	4	4	4	4	4
104	M	16	11	3	1	2	2	1	3	2	2	2	1
105	F	17	11	3	1	3	3	2	2		2	3	1
106	F	17	11	3	2	4	4	2	2	2	2	2	2
107	F	16	11	4	5	3	2	4	3	4	3	3	5
108	F	16	11	2	3	4	4	3	4	3	2	3	5
109	F	16	11	2	1	3	2	2		2	1	2	2
110	M	16	11	2	5	3	3	3	5	4	3	3	3
111	F	16	11	3	1	4	4	4	3	4	1	4	1
112	F	17	11	3	2	4	4	3	4	4	3	4	3
113	F	16	11	4	2	2	1	2	1	1	4	2	1

114	F	16	11	4	5	5	3	5	3	3	2	2	5
115	F	16	11	4	3	4	2	5	4	3	2	3	5
116	F	16	11	5	4	4	4	3	5	3	4	4	5
117	F	16	11	3	1	4	3	2	2	3	4	3	2
118	F	18	11	4	3	2	2	3	3	3	4	2	5
119	F	17	11	4	0	1	1	4	4	4	2	2	2
120	F	18	11	1	2	3	2	1	2	2	1	2	2
121	F	16	11	2	2	3	3	1	2	2	2	1	1
122	F	16	11	4	4	3	3	4	4	2	3	3	5
123	F	16	11	3	2	4	2	1	3	3	2	2	2
124	F	16	11	2	1	2	4	2		3	3	2	2
125	M	16	11	2	3	4	2	2	3	3	3	3	3
126	F	17	11	3	3	4	3	2	2	3	2	3	2
127	M	17	11	2	2	4	2	2	2	3	2	2	3
128	F	16	11	4	2	4	3	2	3	4	3	2	2
129	F	16	11	3	5	4	4	5	4	4	4	4	4
130	M	17	12	3	3	2	5	4	2	3	2	5	4
131	M	17	12	2	1	2	3	2	2	3	2	2	2
132	F	18	12	2	1	2	3	2	2	3	2	2	2
133	F	17	12	2	1	1	2	3	1	1	1	1	1
134	F	17	12	3	5	5	5	5	4	2	5	4	5
135	F	18	12	2	2	5	3	3	2	3	2	2	3
136	F	17	12	3	2	1	4	3	3	3	2	3	2
137	M	17	12	5	5	4	4	4	5	5	4	4	5
138	F		12	1	1	1	1	1	1	1	1	1	1

139	F	18	12	2	2	2	3	2	2	2	2	1	1
140	M	17	12	3	1	3	3	5	5	4	2	4	2
141	M	17	12	5	4	4	4	5	4	3	4	4	4
142	F	17	12	3	4	3	3	1	4	3	3	4	3
143	F	18	12	3	4	4	3	5	5	4	5	4	3
144	M	18	12	3	2	2	3	3	3	3	2	2	2
145	F	18	12	2	2	1	2	2	1	3	3	2	2
146	F	18	12	4	4	4	4	4	4	3	4	4	4
147	F	18	12	4	2	3	2	2	2	2	3	2	2
148	F	18	12	2	2	4	3	3	2	2	3	3	2
149	M	18	12	4	5	4	3	4	3	5	4	4	5
150	F	18	12	3	2	2	3	1	2	2	2	2	2
151	F	18	12	2	1	2	3	3	2	3	2	3	2
152	F	19	12	3	2	1	3	2	2	2	3	5	5
153	F	19	12	2	2	4	2	3	2	2	2	3	2
154	F	18	12	3	1	2	2	3	2	3	2	4	3
155	M	18	12	3	2	1	3	3	3	4	2	4	3
156	M	17	12	2	1	1	2	3	2	2	2	3	3
157	F	17	12	4	1	4	3	2	2	3	2	2	2
158	M	18	12	4	4	3	4	3	4	3	3	3	3
159	F	18	12	2	1	3	2	1	2	3	1	2	2
160	M	17	12	4	3	5	3	2	1	1	5	4	5
161	F	18	12	5	4	5	4	2	5	4	5	2	4
162	F	18	12	3	1	2	3	4	5	3	2	3	2
163	F	18	12	3	2	2	2	1	2	3	2	2	1

164	F	18	12	4	5	4	4	5	5	5	5	5	4
165	F	18	12	3	1	2	2	3	2	2	1	2	2
166	M	18	12	4	4		3	4	3	3	3	4	4
167	F	17	12	4	4	3	3	4	4	3	2	4	4
168	F	18	12	4	4	4	3	4	3	3	5	3	2
169	F	18	12	4	1	2	2	2	4	3	2	2	4
170	F	18	12	2	1	1	3	2	2	1	2	2	2
171	F	17	12	3	3	4	3	3	3	3	2	3	2
172	F	17	12	2	3		3	2	3	3	3	3	2
173	F	18	12	2	2	3	2	3	2	2	3	2	3
174	F	18	12	2	2	3	3	2	3	1	1	2	2
175	F	18	12	2	2	2		2	2	2	2	2	2
176	F	18	12	2	3	4		3	4	3	4	3	2
177	M	18	12	3	3	3	3	2	3	3	4	3	2
178	M	18	12	3	2	2	2	3	2	3	2	2	3
179	F	18	12	2	2	4	2	1	3	3	2	3	3
180	F	17	12	2	3	2	3	3	3	3	2	2	2
181	M	18	12	3	3	2	3	3	2	1	3	2	3
182	F	17	12	2	2	3	2	2	2	2	2	2	2
183	F	18	12	2	1	3	2	2	2	1	2	1	2
184	M	18	12	3	3	2	3	3	3	2	3	2	3
185	F	16	11	4	4	5	5	3	4	3	5	4	3
186	F	16	11	3	2	3	2	3	2	2	1	2	3
187	F	17	11	2	2	2	3	1	3	2	3	2	3
188	F	16	11	3	1	2	2	2	3	3	2	3	2

189	F	16	11	4	4	4	4	5	4	4	4	4	4
190	F	16	11	1	3	5	2	2	3	3	1	3	3
191	F	16	11	3	1	2	4	3	4	3	4	3	4
192	M	16	11	4	2	3	3	2	3	3	2	3	3
193	F	16	11	3	2	2	3	2	3	2	2	3	3
194	F	16	11	3	5	3	4	3	4	4	2	4	3
195	F	17	11	4	5	3	3	3	3	3	3	3	2
196	F	16	11	3	3	3	4	3	4	4	3	3	3
197	M	16	11	4	2	4	3	2	3	2	2	3	3
198	F	17	11	3	2	4	3	3	3	3	3	3	3
199	F	16	11	4	2	4	3	3	3	3	1	3	2
200	F	16	11	3	2	2	2	2	3	3		2	2
201	M	17	12	3	2	4	3	4	4	3	2	4	4
202	M	17	12	2	1	2	2	3	2	2	3	2	2
203	F	17	12	2	3	3	2	2	2	2	1	2	2
204	F	18	12	2	2	3	2	2	1		2		2
205	M	18	12	3	1	3	3	1	2	1	1	2	2
206	F	17	12	3	4	1	4	5	3	5	4	3	2
207	M	17	12	2	1	3	3	2	4	3	2	2	1
208	M	18	12	2	1	1	2	2	2	2	1	2	2
209	M	18	12	3	1	2	3	2	2	3	2	1	1
210	M	18	12	2	4	3	4	4	3	3	4	4	4
211	F	17	12	3	3	3	2	3	3	2	3	3	2
212	M	19	12	2	1	2	1	1	2	2	1	1	1
213	F	17	12	1	1	2	2	2	3	3	3	3	2

214	F	17	12	3	3	5	2	2	4	5	3	2	3
215	M	16	10	2	1	1	1	1	1	1	1	1	1
216	M	17	12	2	3	4	2	2	2	4	2	3	2
217	F	17	12	2	2	3	3	2	2	1	2	2	1
218	F	18	12	4	3	2	4	3	4	4	3	3	3
219	M	17	12	1	2	3	3	2	2	3	1	2	2
220	F	18	12	4	2	3	3	2	2	3	2	2	1
221	F	17	12	3	1	1	1	4	2	4	2	2	2
222	M	15	10	2	2	2	3	3	3	2	3	2	1
223	F	14	9	2	2	2	2	2	2	2	2	2	2
224	F	18	12	3	1	1	1	1	2	3	4	2	1
225	F	17	12	3	2	3	3	1	3	3	3	3	2
226	F	19	12	3	2	2	2	1	2	3	2	2	1
227	F	17	12	2	1	1	3	2	2	1	1	2	1
228	M	16	11	2	1	2	2	2	2	2	1	2	3
229	M	16	11	1	2	2	2	2	1	2	1	1	1
230	F	16	1	2	2	2	1	1	1	2	3	3	2
231	M	17	11	1	3	2	3	1	4	2	3	2	1
232	F	16	11	2	2	3	2	2	3	2	2	2	2
233	F	16	11	2	2	3	2	1	3	2	2	2	2
234	F	16	11	3	2	4	3	3	4	3	3	3	3
235	F	16	11	3	2	3	4	2	3	2	4	3	4

Automated Borrowing System

Respondent	Sex	Age	Year Level	QA1	QA2	QA3	QA4	QA5	QA6	QA7	QA8	QA9	QA 10
1	F	15	9	1	1	1	1	1	1	1	1	1	1
2	M	15	9	1	3	2	1	1	2	1	1	2	1
3	F	14	9	2	2	2	3	3	2	2	3	2	2
4	F	14	9	1	1	2	1	1	2	2	2	1	1
5	F	14	9	1	3	2	1	1	2	1	1	2	1
6	F	14	9	1	1	1	1	1	1	1	2	1	1
7	F	14	9	3	4	3	3	3	4	1	1	2	1
8	F	15	9	1	1	1	1	1	1	1	1	1	1
9	F	15	9	1	1	1	1	1	1	1	1	1	1
10	F	14	9	3	4	3	3	3	4	1	1	3	1
11	F	13	9	1	2	1	2	2	1	2	3	2	1
12	F	14	9	1	2	1	1	1	1	2	2	1	1
13	M	15	9	1	3	2	1	1	2	1	1	2	1
14	F	14	9	3	1	2	2	2	1	2	1	1	1
15	F	14	9	1	1	2	2	1	1	2	2	1	1
16	F	14	9	1	1	2	2	2	2	2	3	2	2
17	F	14	9	4	3	2	3	3	2	4	2	3	4
18	F	14	9	3	2	2	2	2	3	2	2	2	2
19	F	14	9	3	3	3	2	1	2	3	1	3	1
20	F	15	9	3	2	2	2	2	1	1	1	2	1
21	M	17	9	1	1	1	2	2	3	2	2	3	1
22	M	14	9	1	1	2	2	3	1	2	2	1	1
23	F	14	9	1	1	1	2	1	2	2	1	1	1

24	F	14	9	1	1	1	2	2	2	2	1	1	1
25	F	14	9	1	1	1	2	1	2	2	2	1	2
26	F	14	9	1	1	1	1	1	1	1	2	1	1
27	F	14	9	1	1	1	1	1	1	1	1	1	1
28	M	14	9	1	1	1	1	1	1	1	1	1	1
29	F	14	9	1	1	1	1	1	1	1	1	1	1
30	F	15	9	1	1	1	1	1	1	1	1	1	1
31	F	15	9	2	1	3	2	1	2	1	3	2	3
32	M	14	9	1	1	1	1	1	1	1	1	1	1
33	M	15	10	3	4	1	3	3	4	3	4	3	4
34	F	15	10	1	1	2	1	1	1	2	2	1	1
35	F	16	10	2	1	1	2	3	1	2	1	2	1
36	F	15	10	2	1	2	2	1	1	2	2	1	1
37	F	16	10	1	1	1	1	1	1	1	1	1	1
38	F		10	1	1	1	1	1	1	1	2	1	1
39	F	15	10	2	2	2	2	2	3	3	3	3	3
40	F	15	10	1	2	3	2	2	1	2	2	3	3
41	F	15	10	3	2	3	4	4	3	3	2	3	4
42	M	15	10	1	2	3	3	3	2	3	2	2	1
43	F		10	3	4	2	4	3	4	3	4	3	2
44	F	16	10	1	1	2	1	1	1	1	1	2	1
45	F	15	10	1	1	2	1	1	2	1	2	1	1
46	M	16	10	1	2	1	1	3	3	2	3	1	2
47	F	15	10	1	2	2	3	3	2	2	3	1	1
48	F	17	11	2	1	2	3	2	3	2	3	2	1

49	F	16	11	4	5	4	3	4	5	3	5	4	5
50	F	16	11	1	1	3	1	1	1	1	2	2	1
51	M	16	11	1	1	2	3	2	1	2	2	2	1
52	M	17	11	3	2	3	2	1	3	1	3	3	2
53	F	16	11	1	1	2	1	1	2	1	2	2	1
54	F	16	11	3	2	3		2	2	3	2	3	3
55	F	16	11	3	2	3	2	2	3	1	2	1	1
56	M	16	11	5	1	2	4	4	3	3	3	4	5
57	M	16	11	2	1	2	2	1	1	2	3	2	2
58	F	16	11	2	2	3	2	2	3	2	2	2	2
59	F	17	11	2	2	2	3	1	2	3	2	2	2
60	F	16	11	1	1	1	2	1	2	2	3	1	1
61	F	16	11	1	1	1	2	1	1	2	1	1	1
62	F	16	11	1	1	1	1	1	1	1	2	1	1
63	M	16	11	1	1	1	1	1	2	2	1	1	1
64	F	16	11	1	1	1	2	2	3	2	1	1	1
65	M	18	11	2	1	2	2	2	1	1	1	2	1
66	M	17	11	2	1	2	2	2	1	1	1	2	1
67	F	16	11	1	1	1	1	1	1	1	4	1	4
68	F	16	11	1	2	1	2	1	1	2	1	1	1
69	M	16	11	1	2	2	2	2	2	1	2	2	2
70	F	17	11	1	1	1	1	1	1	1	1	1	1
71	F	16	11	1	1	1	1	2	3	2	2	2	2
72	F	16	11	2	1	2	1	1	2	1	1	1	2
73	M	17	11	1	1	1	1	0	2	0	1	1	1

74	F	17	11	1	1	2	3	1	1	2	2	1	1
75	F	16	11	2	1	2	1	1	1	1	1	1	2
76	F	19	11	1	2	2	1	2	1	3	2	2	1
77	F	17	11	1	2	3	2	3	2	3	1	2	1
78	F	16	11	2	1	4	2	2	1	3	2	3	4
79	M	17	11	1	1	3	2	1	3	2	3	1	1
80	F	15	10	2	2	1	2	1	1	2	3	2	2
81	F	15	10	1	1	2	1	1	1	2	1	1	1
82	M	15	10	1	2	1	1	2	2	1	1	2	1
83	M	15	10	1	1	1	2	2	2	1	3	2	2
84	F	16	10	1	1	1	2	2	2	1	3	1	1
85	F	15	10	1	1	1	1	2	1	2	3	1	1
86	F	15	10	1	1	1	1	1	1	1	1	1	1
87	F	16	10	2	1	2	3	1	2	3	3	1	2
88	F	16	10	2	2	1	2	3	1	1	3	2	1
89	F	15	10	2	2	1	2	1	1	2	2	2	2
90	F	16	10	1	1	2	2	2	2	1	1	2	1
91	F	16	10	1	1	1	2	2	1	2	2	1	1
92	M	15	10	1	2	1	2	2	1	2	2	1	1
93	F	15	10	2	2	1	2	2	1	2	2	1	2
94	F	16	10	2	2	1	1	2	2	1	2	3	2
95	F	16	11	1	1	1	1	1	1	2	3	2	1
96	F	17	11	2	2	2	2	3	3	3	2	2	2
97	M	16	11	1	3	1	3	2	2	3	3	2	2
98	F	16	11	2	2	1	2	1	1	3	3	1	1

99	F	16	11	1	3	1	3	2	2	3	3	2	2
100	F	16	11	2	2	1	2	1	1	2	1	1	2
101	F	16	11	1	1	2	1	1	2	2	2	1	1
102	F	16	11	1	1	1	1	2	2	2	1	2	1
103	F	17	11	2	2	1	2	3	1	3	2	1	1
104	M	16	11	2	1	3	2	2	1	1	2	1	1
105	F	17	11	3	2	2	2	1	5	3	2	3	2
106	F	17	11	1	2	3	3	2	3	3	2	1	1
107	F	16	11	2	1	1	1	1	2	1	1	1	1
108	F	16	11	1	1	2	2	1	1	1	1	2	1
109	F	16	11	1	1	0	1	1	2	1	2	1	1
110	M	16	11	2	2	1	2	1	1	2	2	2	2
111	F	16	11	3	4	3	2	2	1	2	2	1	1
112	F	17	11	1	2	3	3	2	1	2	2	3	2
113	F	16	11	1	2	3	2	2	2	2	2	0	2
114	F	16	11	2	1	1	2	3	2	2	2	1	1
115	F	16	11	0	2	3	2	2	2	2	2	3	2
116	F	16	11	1	2	2	3	2	2	2	2	3	1
117	F	16	11	1	1	2	1	2	2	1	3	1	1
118	F	18	11	1	1	2	3	2	2	2	2	2	1
119	F	17	11	1	1	2	2	1	3	3	3	2	1
120	F	18	11	1	1	2	3	1	1	2	1	1	1
121	F	16	11	1	2	2	2	1	3	2	2	1	3
122	F	16	11	1	2	1	1	1	1	1	1	1	1
123	F	16	11	2	1	3	2	3	2	2	3	2	3

124	F	16	11	1	1	3	2	1	3	2	2	2	1
125	M	16	11	2	1	1	2	2	1	2	2	2	1
126	F	17	11	1	1	1	1	2	2	1	1	1	1
127	M	17	11	2	2	1	2	1	1	2	2	2	2
128	F	16	11	2	2	1	3	2	2	1	1	3	2
129	F	16	11	2	2	3	2	2	2	1	1	3	3
130	M	17	12	3	3	2	3	4	3	3	2		
131	M	17	12	1	2	2	1	3	2	2	3	1	1
132	F	18	12	1	1	2	2	1	1	2	2	2	1
133	F	17	12	1	1	2	2	1	1	2	2	2	1
134	F	17	12	1	1	1	1	1	1	1	1	1	1
135	F	18	12	1	1	1	1	1	1	1	1	1	1
136	F	17	12	1	1	1	1	1	2	1	2	1	1
137	M	17	12	1	1	1	1	1	1	1	2	1	1
138	F		12	2	1	2	2	1	1	1	2	1	2
139	F	18	12	2	3	1	1	2	1	2	3	1	1
140	M	17	12	1	2	2	2	3	2	2	2	2	1
141	M	17	12	3	1	1	4	3	3	1	3	2	2
142	F	17	12	3	2	4	2	2	3	3	2	2	3
143	F	18	12	1	1	1	2	1	2	1	1	1	2
144	M	18	12	1	1	1	1	1	1	1	1	1	1
145	F	18	12	3	2	2	3	2	2	2	2	2	2
146	F	18	12	4	4	5	3	3	3	4	4	3	3
147	F	18	12	1	1	1	1	1	1	1	1	1	1
148	F	18	12	1	1	1	1	1	1	1	1	1	1

149	M	18	12	3	2	3	3	2	3	3	3	2	2
150	F	18	12	3	2		3	3	2	3	3	3	2
151	F	18	12	3	2	3	3	2	3	3	3	2	4
152	F	19	12	1	1	1	2	1	1	2	1	1	1
153	F	19	12	1	1	1	1	2	1	1	1	3	3
154	F	18	12	2	2	2	1	1	2	2	2	1	1
155	M	18	12	1	2	1	2	2	1	1	2	2	3
156	M	17	12	2	2	2	3	2	2	3	2	2	2
157	F	17	12	1	2	1	1	2	2	3	3	2	2
158	M	18	12	2	1	1	1	2	2	1	2	1	1
159	F	18	12	1	1	1	1	1	1	2	2	1	1
160	M	17	12	1	1	1	1	1	1	1	2	1	1
161	F	18	12	1	1	1	1	1	1	2	2	2	1
162	F	18	12	1	1	1	1	2	2	1	2	2	1
163	F	18	12	2	1	1	2	2	1	2	2	2	1
164	F	18	12	1	1	1	1	1	1	1	1	1	1
165	F	18	12	1	1	1	1	1	1	2	2	1	1
166	M	18	12	3	1	3	2	2	1	1	3	3	2
167	F	17	12	2	1	1	2	1	1	2	1	2	1
168	F	18	12	2	1	3	2	2	1	2	2	2	2
169	F	18	12	1	1	2	2	2	1	2	1	2	1
170	F	18	12	2	1	1	2	1	1	2	3	2	2
171	F	17	12	1	1	1	2	2	3	1	2	1	1
172	F	17	12	2	2	2	2	2	2	2	2	2	2
173	F	18	12	1	1	2	1	2	2	3	2	1	1

174	F	18	12	3	2	2	3	2	3	2	2	3	2
175	F	18	12	1	2	1	2	1	1	1	2	2	3
176	F	18	12	1	1	1	1	1	1	1	1	1	1
177	M	18	12	2	3	4	3	2	3	3	4	2	3
178	M	18	12	1	2	2	1	2	3	2	3	2	3
179	F	18	12	2	1	3	2	2	3	2	1	2	2
180	F	17	12	3	3	3	2	2	2	1	1	1	1
181	M	18	12	3	2	2	3	1	2	2	2	2	2
182	F	17	12	3	1	2	3	2	3	2	2	1	2
183	F	18	12	2	2	4	3	4	4	3	2	3	3
184	M	18	12	1	1	3	2	3	1	2	2	2	1
185	F	16	11	1	1	3	2	3	1	2	2	2	1
186	F	16	11	2	2	2	2	3	3	2	2	3	2
187	F	17	11	1	1	1	1	1	1	1	1	1	1
188	F	16	11	1	1	1	1	1	1	2	1	1	1
189	F	16	11	1	1	1	1	1	1	2	2	2	1
190	F	16	11	2	3	3	2	2	2	2	2	2	2
191	F	16	11	2	3	2	2	2	4	1	1	3	2
192	M	16	11	2	2	3	3	1	1	1	2	1	1
193	F	16	11	1	2	1	2	1	2	1	1	1	1
194	F	16	11	1	1	2	1	1	1	1	1	1	1
195	F	17	11	1	2	2	1	1	1	2	2	1	2
196	F	16	11	1	1	2	1	1	2	1	4	1	1
197	M	16	11	1	1	2	2	1	1	2	3	1	1
198	F	17	11	1	1	2	3	1	1	3	1	3	1

199	F	16	11	1	2	1	1	2	2	2	3	2	3
200	F	16	11	2	2	3	2	1	3	3	2	1	1
201	M	17	12	4	4	5	4	4	4	4	3	4	4
202	M	17	12	1	1	1	1	1	1	1	2	1	1
203	F	17	12	3	2	2	3	3	3	3	3	3	3
204	F	18	12	1	1	1	1	1	1	1	2	1	1
205	M	18	12	2	2	1	3	2	2	3	2	1	2
206	F	17	12	3	2	2	2	2	2	2	2	2	2
207	M	17	12	5	5	3	2	5	2	2	5	2	5
208	M	18	12	1	3	3	1	1	3	2	2	3	3
209	M	18	12	1	4	5	3	2	3	3	3	3	3
210	M	18	12	1	2	1	2	1	2	2	3	2	2
211	F	17	12	2	2	1	2	3	3	2	0	3	1
212	M	19	12	2	3	2	3	2	2	0	2	1	1
213	F	17	12	0	2	2	2	1	3	2	2	2	1
214	F	17	12	1	2	2	2	1	2	1	2	1	1
215	M	16	10	2	3	1	3	1	3	2	3	1	2
216	M	17	12	2	2	1	2	2	1	3	2	2	1
217	F	17	12	2	2	2	3	1	3	2	2	3	2
218	F	18	12	1	2	1	1	1	1	3	3	1	1
219	M	17	12	1	2	2	2	2	1	2	2	1	1
220	F	18	12	1	4	3	0	3	2	2	3	3	2
221	F	17	12	1	2	2	2	2	3	3	2	2	1
222	M	15	10	2	2	2	1	2	2	3	2	3	3
223	F	14	9	4	1	2	3	3	3	3	2	2	3

224	F	18	12	2	2	3	3	2	3	2	1	2	2
225	F	17	12	1	1	2	2	1	3	2	1	2	2
226	F	19	12	1	3	3	3	2	2	3	3	3	2
227	F	17	12	2	2	3	2	3	3	3	3	3	3
228	M	16	11	2	2	3	3	2	2	3	3	1	1
229	M	16	11	1	2	1	1	1	1	1	1	1	1
230	F	16	11	1	1	3	2	1	3	2	2	2	1
231	M	17	11	2	1	1	2	2	1	2	2	2	1
232	F	16	11	1	1	1	1	2	2	1	1	1	1
233	F	16	11	2	2	1	2	1	1	2	2	2	2
234	F	16	11	2	2	1	3	2	2	1	1	3	2
235	F	16	11	2	2	3	2	2	2	1	1	3	3

CURRICULUM VITAE

Name: Aurora Faith Lofranco Lancheta

Age: 17 years old

Date of Birth: August 13, 2006

Place of Birth: Davao City, Davao del Sur,

Civil Status: Student

Nationality: Filipino

Religion: Roman Catholic **Phone Number:** 09631261726

Sex: Female **Email:** auroralancheta@gmail.com

Father's Name: Edgar D. Lancheta **Occupation:** Soldier

Mother's Name: Jonemie C. Lofranco **Occupation:** Teacher

EDUCATIONAL ATTAINMENT

	School	Year Graduated
Elementary:	Lamanan Elementary School	2018
Junior High School:	Calinan National High School	2021
Senior High School:	Holy Cross College of Calinan, Inc,	2024

CURRICULUM VITAE

Name: Rigel Yestin Binobo Daggon

Age: 17 years old

Date of Birth: February 23, 2006

Place of Birth:. Davao City, Davao del Sur,

Civil Status: Student

Nationality: Filipino

Religion: Alliance (CAMACOP) **Phone No.:** 09459916023

Sex: Male **E-mail address:** rgelyestin@gmail.com

Father's Name: Melben O. Daggon **Occupation:** Teacher

Mother's Name: Derly B. Daggon **Occupation:** Teacher

EDUCATIONAL ATTAINMENT

	School	Year Graduated
Elementary:	Malalan Elementary School	2018
Junior High School:	Baguio National School of Arts and Trades	2022
Senior High School:	Holy Cross College of Calinan, Inc.	2024

CURRICULUM VITAE

Name: Ma. Alyzandra B. Agbunag

Age: 18 years old

Date of Birth: October 12, 2005

Place of Birth:. Davao City, Davao del Sur,

Civil Status: Student

Nationality: Filipino

Religion: Roman Catholic **Phone No.:** 09507016587

Sex: Female **E-mail address:** mariaalyzandra12@gmail.com

Father's Name: Mcdhong Nafel D. Arches **Occupation:** Government

Mother's Name: Elna B. Agbunag **Occupation:** Government

EDUCATIONAL ATTAINMENT

	School	Year Graduated
Elementary:	Calinan Lam Adventist Academy, Inc.	2018
Junior High School:	Holy Cross College of Calinan, Inc.	2021
Senior High School:	Holy Cross College of Calinan, Inc.	2024

CURRICULUM VITAE

Name: Lennard Jan S. Polentinos

Age: 18 years old

Date of Birth: January 1, 2006

Place of Birth: Davao City, Philippines

Address: Subasta, Calinan, Davao City

Sex: Male

Civil Status: Single **Phone No.:** 09104287127

Citizenship: Filipino **E-mail Address:** sullanolennard@gmail.com

Religion: Roman Catholic

Father's Name: Eliseo L. Polentinos **Occupation:** Seaman

Mother's Name: Sheila Mae S. Polentinos **Occupation:** Housewife

EDUCATIONAL BACKGROUND

	SCHOOL	YEAR GRADUATED
Elementary:	Subasta Elementary School	2018
Junior High School:	Holy Cross College of Calinan Inc.	2022
Senior High School:	Holy Cross College of Calinan Inc.	2024

CURRICULUM VITAE

Name: Shine D. Hernane

Age: 18 years old

Date of Birth: October 16, 2005

Place of Birth:. Davao City, Davao del Sur

Civil Status: Student

Nationality: Filipino

Religion: Roman Catholic **Phone No.:** 09763345977

Sex: Female **E-mail address:** shinehenane@gmail.com

Father's Name: Eusebio O. Hernane **Occupation:** Farmer

Mother's Name: Marjorie D. Hernane **Occupation:** Housewife

EDUCATIONAL ATTAINMENT

	School	**Year Graduated**
Elementary:	Lanao Kuran Elementary School	2018
Junior High School:	Lanao Kuran National Vocational Technologycal Highschool	2022
Senior High School:	Holy Cross College of Calinan, Inc.	2024

CURRICULUM VITAE

Name: Allyssa Marielle Caluma

Age: 17 years old

Date of Birth: September 13, 2006

Place of Birth:. Antipolo City, Philippines

Civil Status: Student

Nationality: Filipino

Religion: Christian

Sex: Female

Father's Name: Grant G. Caluma **Occupation:** Operations Manager

Mother's Name: Jecel N. Caluma **Occupation:** BPO

Phone No.: 09154633491

E-mail address: allyssamariellecaluma@gmail.com

EDUCATIONAL ATTAINMENT

Graduated	School	Year Graduated
Pre-School	Spark School	2012
Elementary	Lord's Hand Academy Inc.	2018
Secondary	Calinan National High School	2022