

More Than Numbers: Implementing New Assessment Methods for Libraries

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Measurement of Academic Library Outcomes towards Achieving Institutional Outcomes of State Universities and Colleges (SUCs) in the Philippines

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Abstract:

The academic libraries, as an integral part of the system should therefore define what outcomes SUCs in the Philippines should set as part of their performance measurements. Such outcomes are possibly derived from the activities that are likely to result in achieving the desired consequences of such interactions with the library. Thus, this study aimed to define the desired outcomes of both library users and librarians, determine the activities to be implemented by librarians that will result in achieving their desired outcomes, analyse the extent to which the desired outcomes of libraries can contribute in achieving their institutional outcomes, analyse the significant difference between the assessments of users and librarians with respect to library activities, and identify performance indicators appropriate for the development of the proposed outcomes-based library standard for SUCs. Findings revealed that most of the desired outcomes of the users include positive effects on the use of facilities and services; almost all librarians seek for sustainable financing initiative from SUC administration. The desired outcomes of respondents contribute in achieving the institutional outcomes with respect to governance and management, quality of teaching and learning, quality of professional exposure, research and creative works, and support for students. Consequently, the study concludes that physical facilities and services of the library have positive effects on student learning and head librarians are certain that all their planned activities contribute in achieving their desired outcomes and are aligned towards achieving almost all aspects of the institutional outcomes of SUCs.

Keywords: Library Outcomes, Standards, State Universities and Colleges.

Introduction

The quality of an educational system can be judged from the following perspectives: a) the inputs to the system, b) what happens within the system, c) the outputs from the system (Killen, 2000); and d) recently in terms of outcomes. This principle has been adopted as a basis for educational reforms and formulation of policies by almost all higher education institutions (HEIs) in Asian countries today.

In the Philippines, the Commission on Higher Education (CHED) in its Memorandum Order No. 46, series 2012, entitled *Policy-Standard to Enhance Quality Assurance (QA) in Philippine Higher Education through an Outcomes-Based and Typology-Based QA* discussed the role of the state in providing quality education to its citizens (CHED, 2014). To assure quality in higher education, the policy-standard focuses on the implementation of outcomes-based education (OBE) in instructional planning, teaching, and assessment of students. Quality education in this context entails commitment among HEIs to educate highly qualified graduates and responsible citizens able to meet the demands of the community as products of their learning outcomes. To achieve this end product, Heron and Dugan (2004) advised that productivity should start to deal with quality and is linked with accountability. One of the accountability measures being undertaken by HEIs today is by submitting their institutions and programs to voluntary accreditation and internationalization to measure and increase the level of their educational effectiveness to the community. Through this process, HEIs are being evaluated on their commitment and capacity in achieving their institutional outcomes. In 2017, CHED established an assessment system known as Institutional Sustainability Assessment (ISA) which includes performance indicators and standards to measure the performance of HEIs in translating policies into quality programs and results that give quality outcomes. The ISA framework has 5 key result areas to measure the performance of HEIs in achieving their institutional outcomes, to wit: 1) Governance and Management, 2) Quality of Teaching and Learning, 3) Quality of Professional Exposure, Research, and Creative Work, 4) Support for Students, and 5) Relations with the Community.

With this paradigm shift in higher education, academic libraries as one of the key players in providing access to information and structuring instructional resources and services (Lindauer, 1998) are required to establish efficient and effective library operations that are not only relevant to students and faculty but are also responsive in attaining their institutional outcomes. Primarily, librarians need to understand their current climate and determine the relevance and contribution of their libraries to their parent institutions and community as well. Kaufman and Watstein (2008) asserted that librarians should define first the outcomes of their institutional relevance, then measure the degree to which they could attain them to determine their institutional value and consequently, apply the findings for continuous improvement (American Library Association, 2011). It is the goal of this study to determine what outcomes can possibly be attained by one's interaction with the library and develop an instrument to help libraries measure their performance.

An outcome as defined by Fraser, McClure, and Leahy (2002) is a clearly identified result or end product that occurs as a consequence of individual or combined activities from units at the institution. In reference to this, outcomes are therefore measures of the effect of using library collections and services has on users (Council on Library and Information Resources, 2014). Measuring outcomes is one of the challenging tasks facing by academic libraries today since it determines how well their programs are and delivered services have changed

the students' information behaviour. Indeed, understanding library outcomes means more than determining the extent of library usage and expectations for student learning but how the library collection and services have influenced students. In this context, it is essential that the goals and objectives of the academic libraries are clearly stated to ensure that the desired outcomes can be defined, measured and achieved. It is also important to note that programs and activities cascaded from the goals and objectives of the academic libraries need to focus on students' information behaviour.

At present, most libraries do not maintain records on individual users' behaviour; consequently, they cannot easily correlate behaviours with the outcomes of those behaviours (Oakleaf, 2010). According to Lindauer (1998), librarians are not sufficiently strategic or externally focused when determining which measures to use as pieces of evidence of how the library affects educational outcomes. Likewise, they often do not organize their data and other supporting documentation in ways that are accessible or meaningful to academic administrators and accreditation teams, nor do they use language that reflects what is used in campus-wide planning documents. In most cases, academic libraries focus on quantitative measures such as statistical data on book acquisition, usage, serial subscription, and expenditures but the qualitative measures are often neglected such as data concerning the effect of collection and services to students' lifelong learning. This library practice is an indication that the qualitative aspect of measuring library services needs to put in place to ensure that the desired quality services, however, defined and measured, are achieved.

Among the academic libraries affected by this predicament are the state universities and colleges (SUCs) in the Philippines. While there are existing measures of performances of SUCs that are outcomes-based, the outcomes value of libraries still needs to be articulated focusing on the value they provide to the user, for the user and by the user (Kyrillidou, 2002). Thus, librarians need to define their desired library outcomes and implement programs and activities that will certainly achieve the outcomes set within the context of the library goals and objectives. To ensure the achievement of the desired outcomes, an appropriate assessment tool should be designed to measure the performance achievement of the academic libraries and assess the effectiveness of library policies and procedures in achieving the desired outcomes, and the extent of their contribution in achieving their institutional outcomes.

Considering these critical concerns on the implementation of outcomes-based approach in the operation of academic libraries of SUCs in the Philippines, this study was conceptualized to define their desired library outcomes and figure out how these library outcomes can be achieved. The analysis evolved on determining the appropriate library activities that could contribute in achieving the desired library outcomes. In terms of institutional alignment, an assessment on the extent of contribution of the desired library outcomes with the institutional outcomes was conducted using the CHED's ISA Framework. Results in this undertaking served as baseline information in developing the proposed standard for academic libraries of SUCs using the framework of outcomes-based approach.

Statement of the Problem

This study sought to define what library outcomes SUCs in the Philippines should set as part of their performance measurements. Such outcomes are possibly derived from the activities that are likely to result in achieving the desired consequences of such interactions with the library. The development of a proposed outcomes-based academic library standard for SUCs

is intended to be integrated into their respective institutional outcomes. Thus, the main problem is stated as: What institutional outcomes for SUC libraries can be derived from the individual expected outcomes of academic library stakeholders?

Specifically, this study answered the following sub-problems:

1. What desired outcomes do library users expect to achieve in their engagement with SUC academic libraries?
2. What activities do library users expect SUC academic libraries to implement to achieve their desired outcomes?
3. What outcomes do librarians plan to achieve to contribute to the overall program outcomes of their respective institutions?
4. What activities are being implemented by the librarians that will result in achieving their desired outcomes?
5. To what extent can the desired outcomes contribute to the achievement of the institutional outcomes of SUCs?
6. Is there a significant difference between the assessment of library users and librarians on activities that will result in achieving the desired library outcomes?

Objectives of the Study

The study aimed to achieve the following objectives:

1. To define the desired outcomes that library users expected to achieve in their engagement with the academic libraries of SUCs.
2. To determine the activities expected by the library users from academic libraries of SUCs to implement that will result in achieving their desired library outcomes.
3. To define the outcomes that librarians plan to achieve that will contribute to the overall program outcomes of their respective institutions.
4. To determine the library activities implemented by librarians that will result in achieving the desired library outcomes.
5. To analyse the extent to which the desired outcomes of academic libraries of SUCs can contribute in achieving their institutional outcomes.
6. To analyse the significant difference between the assessment of library users and librarians on library activities that will result in achieving their desired library outcomes.
7. To identify outcomes-based performance indicators appropriate for the proposed standard to measure the performance of the academic libraries of SUCs.

Significance of the Study

In transforming the learning environment, one of the goals of libraries in the Information Age is to foster effective self-service among users and to create lifelong and self-directed learners (Schmid & Cribb, 1999). *To this end*, academic libraries should recognize their roles and contributions that will help students to develop skills and abilities for lifelong and self-directed learning and to document and articulate how they can demonstrate their performance in clear and measurable ways.

Recognizing the urgency around this issue, this study will undoubtedly be significant to administrators of SUCs for it will provide a more comprehensive view of evidences appropriate in making decisions. The findings of this study can consequently be used as a basis in the enhancement and implementation process of the institutional programs and activities to further improve the delivery of academic services.

By understanding the concepts of library outcomes, the result of this study will help academic librarians to identify and implement essential library services that will reasonably fit for their intended purpose. Moreover, the output of this study may serve as a reference in measuring their performance in a meaningful way to their respective institutions. The faculty, as partners of librarians in the instructional services, will also benefit on baseline information of this study, necessary for establishing interventions on their research productivity and evaluation of instructional design and curriculum development process.

A similar degree of importance can be garnered in this study for CHED and accrediting bodies in the Philippines for it will serve as a means in the monitoring and evaluation of institutional programs in relation to outcomes-based learning among SUCs in the Philippines. Likewise, the study will be of great help for future researchers who may intend to conduct researches on library outcomes.

And most importantly, this study provides vital information which will enable students to recognize the contribution of libraries not just in their academic success but also in lifelong learning. In this context, it is hoped that this study will serve as a useful point of reference to students in upholding the value of academic libraries towards raising awareness on information literacy.

Scope and Limitations of the Study

The research was concerned on how academic libraries of SUCs can be outcomes based on the measurement of their performance. Specifically, this study focused on articulating the desired outcomes of both library users and librarians of the academic libraries in SUCs that can contribute to the achievements of their institutional outcomes. Likewise, library activities that will result in achieving the desired library outcomes were also identified in this study. To determine the congruency on the responses of the respondents, the significant difference on the assessments of the library users and librarians on the library activities that are likely to result in achieving the desired outcomes was analysed. The results of the analyses served as bases in determining the performance indicators for the proposed academic library standards for SUCs in the Philippines.

The stratified sample size of SUCs in the Philippines was covered in this study. The SUCs were divided into five (5) strata, namely: Luzon 1, Luzon 2, Visayas, Mindanao 1, and Mindanao 2. The respondents were the quality assurance officers, head librarians, and sample size of students and faculty of the main campus of SCU respondents. The data were pertinent to the first semester of AY 2017-2018.

The research does not cover the library and institutional outcomes of the private HEIs, as these are the domain of sectarian and non-sectarian entities where institutional outcomes are heterogeneous. However, it aims to provide vital data for such future endeavors.

Theoretical Framework of the Study

Because the library is an integral component of the mission of every college or university, it is incumbent upon academic librarians to understand the changes that are taking place in higher education. These changes have a direct impact on the library and its operation such as institution's curricula, research, financial and student services (Budd, 1998). According to Ashraf, Sharma, and Gulati (2010), the heart of library is user-centered change. It is a model for library service that encourages constant and purposeful change, inviting user participation in the creation of both the physical and the virtual services they want, supported by consistently evaluating services.

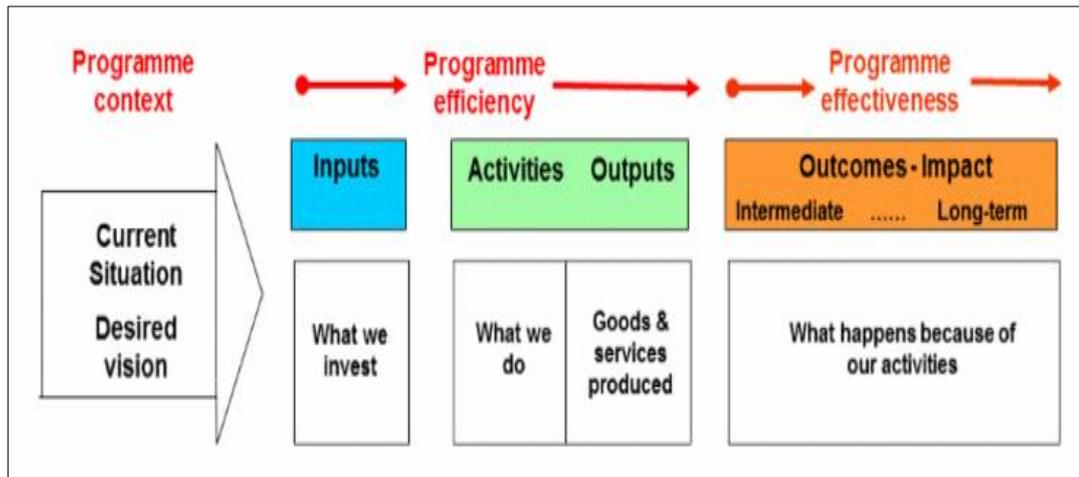


Figure 1 Theory of Change (Learning for Sustainability, 2017)

By mapping the process of change from beginning to end, the Theory of Change (Figure 1) establishes a blueprint for the work ahead and anticipates its likely effects (Learning for Sustainability, 2017). In its early conceptualization in 1995, Weiss as cited by Stein and Valters (2012) described ToC as a theory of how and why a desired change is expected to happen in a particular context. It is focused in particular on mapping out or “filling in” what has been described as the “missing middle” between what a program or change initiative does (its activities or interventions) and how this led to desired goals being achieved. It does this by first identifying the desired long-term goals and then works back from these to identify all the conditions (outcomes) that must be in place (and how these related to one another causally) for the goals to occur. These are all mapped out in an Outcomes Framework. The Outcomes Framework then provides the basis for identifying what type of activity will lead to the outcomes identified as preconditions for achieving the long-term goal (Anderson, 2005 & Center for Theory of Change, 2016) .

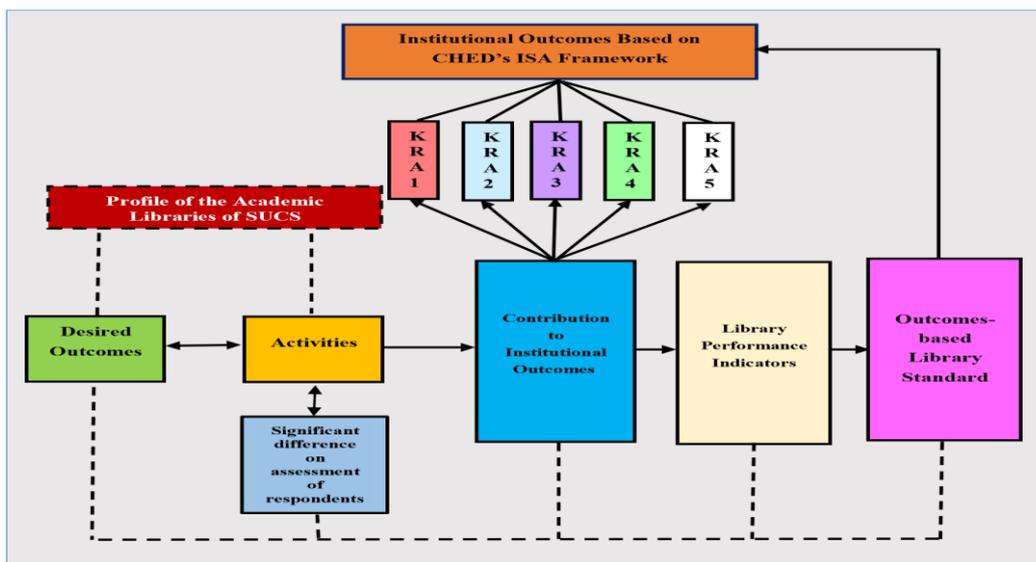
Conceptual Framework of the Study

New conceptions of the nature of higher education must be accompanied by new conceptions of academic libraries (Oakleaf, 2010). Outcomes assessment becomes an integral part of the institutional effectiveness cycle of planning, implementation, assessment, and improvement of the plan. While libraries have traditionally maintained myriad output data (e.g., number of books circulated, number of items cataloged, number of reference questions answered), these

data alone could not serve as evidences whether the library's mission is being achieved, and with what degree of quality. The purpose of outcomes assessment in academic libraries is to measure their quality and effectiveness, focusing on the organizational analysis of the library as a whole, and of its constituent activities and services, and the contributions they make to accomplishing the purposes of the university or college of which it is a part (American Library Association, 2017).

In this context, this study was formed on three (3) sets of literature as shown in Figure 2, namely: (1) desired outcomes for the academic libraries of SUCs that are contributory to the achievements of the their institutional outcomes; (2) activities to achieve the desired outcomes; and (3) extent to which the desired outcomes for academic libraries of SUCs can contribute in achieving their institutional outcomes.

The desired outcomes of library users and librarians for academic libraries of SUCs that are contributory to the achievements of their institutional outcomes depict the expected effect from the services delivered by the academic libraries of SUCs. To evaluate the value of congruency, activities that will result in achieving the desired outcomes were identified and a thorough analysis of the significant difference between the assessment of library users and librarians was conducted.



Legend:
 CHED – Commission on Higher Education
 KRA 1 Governance and Management
 KRA 2 Quality of Teaching and Learning
 KRA 3 Quality of Professional Exposure, Research and Creative Work
 KRA 4 Support for Students
 KRA 5 Relations with the Community

Figure 2. Framework of the Study

With respect to alignment, an assessment on the extent to which the desired library outcomes of students, faculty and librarians could contribute in achieving the institutional outcomes of SUCs was undertaken. For the purpose of uniformity, the institutional outcomes were based from the five (5) key result areas (KRA) of the CHED's Institutional Sustainability Assessment (ISA) Framework, to wit: KRA 1 Governance and Management, KRA 2 Quality of Teaching and Learning, KRA 3 Quality of Professional Exposure, Research, & Creative Work, KRA 4 Support for Students, and KRA 5 Relations with the Community. To explain the relationship between and among variables, the intervening variable was the profile of the

academic libraries of SUCs. The findings of the analysis served as bases in determining the outcomes-based performance indicators for the proposed library standard to ensure its appropriateness as a tool to measure the performance achievement including the extent to which the academic libraries of SUCs could contribute in achieving their institutional outcomes.

Hypothesis

There is no significant difference between the library users and librarians in their assessments on the extent of agreement on the activities being implemented in achieving their desired library outcomes.

Methods

Research Design

This study used the descriptive research method to establish a preliminary understanding of the current state of academic libraries of SUCs in the Philippines in achieving their desired outcomes. Through this method, the researcher enabled to determine and analyse the alignment of library activities appropriate in achieving the desired library outcomes and measure the extent to which these desired outcomes for academic libraries could contribute in achieving the institutional outcomes of SUCs. The findings of the study served as bases in determining the outcomes-based indicators appropriate for the proposed standard for academic libraries of SUCs.

To explain the information obtained via the descriptive method, both qualitative and quantitative approaches were used. The collected quantitative information on the extent of agreement on the activities appropriate in achieving the desired library outcomes and the extent of the contribution of these outcomes in achieving the institutional outcomes were tabulated along a continuum in numerical form. Likewise, this study used description as a tool to organize the library performance indicators into a proposed standard for academic libraries of SUCs that emerged during analysis. These designs aided the mind of the researcher in comprehending a qualitative study and their implications.

Population and Sample

The respondents of the study consisted of the sample size of SUCs in the Philippines. Each SUC respondent was represented by their respective quality assurance officer, library director/head and the sample size of students and faculty.

The stratified random sampling technique was employed in the selection of SUCs that were involved in the study. With this, the SUCs were grouped into five (5) strata according to geographical proximity, namely: Luzon 1, Luzon 2, Visayas, Mindanao 1 and Mindanao 2. A total of 24 SUCs in the Philippines were involved in the study. Among the SUC respondents, Luzon 1 has the highest number of SUC respondents with 25 percent of the total SUC respondents, followed by Visayas with 23 percent of the total SUC respondents since these strata include the regions with the top 3 highest number of SUCs in the Philippines, namely: Central Luzon with 12 SUCs, Western Visayas with 11 SCUs and Eastern Visayas with 10 SUCs.

The data on the distribution of respondents who were involved in the study were taken from the records of CHED Central Office. In the SY 2015-2016, statistics show that SUCs had a total of 1,648,566 students and 53,570 faculty. To determine the appropriate sample size for both respondents, the study adopted the recommended sample size of The Research Advisors (2016) for the population of 1,648,566 and 53,570 for students and faculty, respectively with a confidence level of 95% and margin of error (degree of accuracy) of 5%. In reference to this, a total of 384 students and 381 faculty were involved in the study.

Given these points, a total of 813 respondents were involved in the study using the purposive random sampling since the main objective of the study is to define the desired library outcomes and their corresponding activities as perceived by the library users and librarians and assess the extent to which these library outcomes could contribute in achieving their institutional outcomes by the quality assurance officers of SUCs. With this, only students and faculty of the SUC respondents who visited their respective library from October to December 2017 served as the respondents of the study.

Research Instrument

In gathering the data from the respondents, questionnaires were employed. The questionnaire consisted of three (3) parts, to wit: Part I pertains to the desired library outcomes of students and faculty and the activities to achieve their desired library outcomes, Part II pertains to the desired library outcomes of librarians and the activities that will result in achieving their desired library outcomes, and Part III pertains to the extent to which the desired library outcomes can contribute in achieving their respective institutional outcomes.

To facilitate analysis, the questionnaire used closed-ended questions to identify and assess the desired library outcomes including activities of the academic libraries of SUCs that can contribute to the achievement of their institutional outcomes. Unstructured interviews was also conducted by the researcher to verify and clarify responses of the respondents which were not clearly understood.

Furthermore, the researcher made use of the following procedures and techniques to establish the content validity of the research instrument:

1. Documentary Analysis. The intensive review of related literature and studies presented in this study provided the researcher a thorough and comprehensive knowledge on the specific focus and concerns significant to the nature of the developed instrument. Library standards of the CHED, PAARL, AACCUP and the Standards for Libraries in Higher Education of the American Library Association (2011) were adopted in developing the questionnaire.
2. Pre-testing activity. The questionnaire were pretested to five (5) in each sector of respondents at Urdaneta City University, a local university in Region I. For the questionnaire to be valid, at least two out of three (3) try-out respondents should confirm the questionnaire as valid. With the criterion having met, the observations in the respondents preferred responses, including their suggestions and comments were used as bases in formulating the final form of the questionnaire.
3. Validation. Three (3) library directors/heads in Region I who were considered specialists in library outcomes were requested to give comments and suggestions.

Data Collection

Permission to administer the questionnaires was sought from the Presidents of the SUC respondents. Upon the approval of the request, the researcher coordinated with the librarians of SUC respondents to facilitate the distribution and retrieval of the questionnaires. To ensure that each SUC stratum will be represented in the study, the researcher personally distributed the questionnaires to SUC respondents that have the highest number of student and faculty respondents, namely: Bulacan State University for Luzon 1, Cavite State University for Luzon 2, University of Eastern Philippines for Visayas, J. H. Cerilles State College for Mindanao 1, and Sultan Kudarat State University for Mindanao 2. A brief orientation of the respondents was conducted to ensure their involvement and how they should accomplish the questionnaire. To validate responses to the instrument, the researcher conducted informal interviews with the librarians, quality assurance officers and some of the students. For questionnaires sent thru courier, the researcher assigned a research assistant in each SUC respondent to distribute and retrieve the questionnaires.

Out of 24 SUC respondents, 22 had responded to the survey conducted from October to December 2017. From these 22 SUCs respondents, the computed return rates were 84.63% from the students; 84.25 % from the faculty and both 91.66% from quality assurance officers and librarians.

To gather the qualitative data, informal interviews with head librarians and focus group interviews to students were conducted upon the approval of the SUC Presidents to discuss freely their thoughts on topics concerning to learning outcomes do they desire to achieve in their library engagement and suggested activities in achieving their desired library outcomes. To facilitate the focus group interviews to students, the researcher personally invited at least 5 students who incidentally visited the library to participate in the focus group interviews.

Analysis of Data

After the required data were gathered, appropriate statistical tools were used to ensure a valid interpretation in accordance with the stated problems of the study.

For this purpose, the descriptive statistics were used which included frequency and rank to identify the desired library outcomes of library users and librarian while average weighted mean to determine the extent of agreement on library activities implemented to achieve the desired library outcomes and the extent to which these outcomes can contribute in achieving the institutional outcomes of SUCs. For convenience in the analysis, the Likert scale was used to convert a particular mean point value to its descriptive equivalent. Likewise, the study used Multivariate Analysis of Variance (MANOVA) to determine the significant difference on the assessments of librarians, faculty and students on activities that will result in achieving the desired library outcomes.

To complement to quantitative data in this study, the transcripts of the interviews conducted with the librarians and the reflections including the annotations of the researcher were used to supply interpretations of the results and generate additional information for this study on a wide scale.

Results of the assessments of the respondents in relation to the desired library outcomes that can contribute to the achievement of the institutional outcomes served as baseline information

in developing the proposed outcome-based library standard for SUC libraries. The guidelines used in developing the proposed standards are as follows:

1. Only library outcomes assessed by library users and librarians within the highest to median rank and by the quality assurance officers within the range limits of 3.40 to 5.00, which correspond to agreeable to strongly agreeable statements shall be included in the proposed standard to ensure their alignment within institutional outcomes of SUCs.
2. Library activities which were assessed by the respondents within the range limits of 3.40 to 5.00 shall be considered as valid performance indicators to achieve the desired library outcomes.

Analysis and Interpretation of Data

Desired Outcomes by Library Users

To identify the desired library outcomes of students and faculty of SUCs, the Standards for Libraries in Higher Education of ALA serve as baseline information to determine if the effect of the performance expected from the academic libraries of SUCs will consequently contribute to lifelong learning of students. The study used ALA Library Standards in response to the objectives of CHED's ISA that quality outcomes must meet internationally recognized standards. As to methodology, it used an outcomes-based approach with evidences collected from emerging issues and trends in libraries of higher education institutions and accrediting practices in the Philippines.

In reference to this, the library outcomes presented in this study describe the knowledge and skills expected by students and faculty to learn in their library engagement. For the purpose of analysis and interpretation, both qualitative and quantitative information garnered from the respondents through the use of survey questionnaire and unstructured interview served as baseline information in the attempt to identify the desired library outcomes of library users of SUCs. Results of the survey questionnaire as well as the informal interviews with some of the respondents were organized according to 5 parameters, namely: (A) Administration, (B) Staff, (C) Collection Management, (D) Services and Utilization, and (E) Physical Set-up and Facilities in order to adopt with the current accrediting practices of SUCs in the Philippines.

Guided by the library's advocacy in promoting lifelong learning, the identified outcomes in this study features the positive effect from the students and faculty of SUCs in their engagement with their libraries. In this context, there are 45 library outcomes that are expected to be demonstrated by the students and faculty as a result of the library activities being implemented by SUCs (Tables 1 to 4.).

Table 1.
Desired Outcomes by the Library Users in Terms of Library Administration and Staff

Outcome	Frequency	Rank
A. Students (n=325)		
Students are able to describe the role of the library in improving their academic performance.	279	1
Students who have more contact with the library show higher levels of improvement in academic performance.	248	2
B. Faculty (n=321)		
Faculty seek the input of librarians on course and assignment development.	284	1
Faculty include information literacy learning outcomes in their syllabi.	279	2
C. Students and Faculty (N=646)		
Students and faculty articulate the value of the library in the student's educational experience.	518	1
Students and faculty consult with librarians on work requiring information resources.	514	2
Faculty and students consider library personnel sufficient in quality to meet their research and instruction needs.	511	3
Faculty and students consider library personnel sufficient in quantity to meet their research and instruction needs.	483	4

The foremost outcomes as identified by library users with respect to library administration and staff are as follows: (a) students can describe the role of the library in improving their academic performance (279), (b) faculty will seek the input of librarians on course and assignment development (284), and (c) students and faculty can articulate the value of the library in the student's educational experience (518). These results only show that the SUCs recognized the indispensable role of libraries in students' academic life. Considering the changing learning patterns of students, it is expected that librarians may review regularly their library operations to ensure that their policies and procedures are responsive to these learning patterns and may include multiple ways on how academic libraries could contribute on positive academic performance of students.

With these results, the findings in the study of Brown (2017) on the impact of academic libraries on student learning and success may be used as baseline information to determine the demonstrable evidences that can contribute to positive connections between the library and student learning and success such as library instruction, library use, collaborative academic programs and services, information literacy instruction and library research consultations.

Table 2.
Desired Outcomes by the Library Users in Terms of Library Collection

Outcome	Frequency	Rank
A. Students (n=325)		
Students discover the appropriate library resources needed for their coursework.	254	1
Students increasingly use library collections for both curricular and co-curricular information needs.	228	2
B. Students and Faculty (N=646)		
Students and faculty judge access to collections sufficient to support their educational and research needs.	491	1
Students and faculty are satisfied with the collections provided by libraries for their educational, business, and research needs.	348	2

As reflected in Table 2, the desired outcomes of students and faculty with regard to collection development activities of academic libraries include the development of their ability to discover the appropriate library resources needed for their coursework (254) and consider access to collection as sufficient to support their educational and research need (491). Bearing in mind these results, it only shows that library users preferred to discover and learn on their own effort. It is a challenge, therefore for academic libraries of SUCs to provide collection that will help students to learn inquiry skills through independent learning.

Table 3 presents results of the survey conducted with respect to the desired library outcomes of students and faculty as a result of availing the library services.

Table 3.

Desired Outcomes by the Library Users in Terms of Library Services and Utilization

Outcome	Frequency	Rank
A. Students (n=325)		
Students engage with librarians in a variety of ways and contexts.	328	1
Students include a variety of appropriate resources in bibliographies.	267	2
Students evaluate websites for suitability to their research needs.	260	3
Students achieve a passing score on their test.	251	4
Students articulate rationale for evaluating resources.	240	5
Students demonstrate ability to define problems, access and evaluate resources, and use information ethically.	232	6
B. Faculty (n=321)		
Faculty describe librarians as sources of help to their students.	299	1
Faculty positively rate their experiences in workshops and other professional opportunities provided by librarians in collaboration with other campus partners.	276	2
Faculty value librarian input on teaching and learning techniques.	273	3
Faculty evaluate program curricula for effectiveness in supporting the learning of information literacy skills.	272	4
Faculty judge librarians to be collaborators in educating students.	267	5
Faculty require increasingly sophisticated demonstration of student information literacy learning outcomes as students proceed to graduation.	265	6
Faculty include information literacy learning outcomes in their syllabi.	259	7
Faculty judge that their research assignments have improved after applying skills from library-involved professional development.	258	8
Faculty judge that their students have improved after applying skills from library involved professional development.	257	9
Faculty put into practice techniques to embed information literacy as a consequence of library-involved professional development.	255	10
Faculty choose critical steps in research assignments that are needed for student understanding as a consequence of library-involved professional development.	254	11
Faculty participate in workshops and other professional opportunities provided by librarians in collaboration with other campus partners.	246	12

Continuation of Table 3.

Outcome	Frequency	Rank
C. Students and Faculty (N=690)		
Students and faculty can access collections needed for educational and research needs from all user locations.	490	1
Students and faculty choose the library web interface as one of the first steps in their finding activities.	457	2
Students and faculty are satisfied with library services.	456	3
Students and faculty demonstrate effective access to library resources no matter what their starting point.	454	4
Students and faculty expand the types of sources (e.g., multiple formats—books, journals, primary sources, etc.) consulted when doing research as a result of a one-on-one consultation with librarians.	444	5
Students and faculty judge integration of library interfaces and resources found through the library as one reason for their success.	343	6
Students and faculty integrate library interfaces and architectures into their daily search behaviors.	323	7
Students and faculty judge the library as up-to-date in methods provided for access.	323	8
Students and faculty enhance their research skills through one-on-one consultation with librarians.	269	9
Students and faculty recommend the one-on-one research assistance to their classmates and/ or friends.	260	10
Students and faculty readily transfer the skills learned through one-on-one consultation with a librarian to other research contexts/assignments.	250	11

The study revealed that the library users desire to engage with librarians in a variety of ways and contexts (328) since they consider them as source of help to students (299) for them to access the needed collection for their educational and research needs (490). Through this engagement, the library outcomes expected by the library users are the students' ability to include a variety of appropriate resources in the bibliographies of their researches (267), students' ability to assess websites as suitable to their research needs (260), faculty positively rate their experiences in workshops and other professional opportunities provided by librarians in collaboration with other campus partners (276) and faculty value librarians' input in their teaching and learning techniques. Consequently, students and faculty are expected to be satisfied with the library services (456) once there are demonstrable evidences that student learning and success are already evident as a result of the above-cited outcomes.

In spite of the library's advocacy in promoting lifelong learning, data revealed however that only 42% to 39% of the library user respondents responded that the outcomes they desire as a result of their engagement with the librarians of SUCs will include the enhancement of their research skills (269), recommend the library's research assistance service to classmates and friends (260) and transfer the skills learned (250). With these results, it is evident that the information literacy program is not yet fully implemented by the academic libraries of SUCs. In an interview conducted by the researcher to verify these results, it was found that both students and faculty preferred to use the internet instead of consulting the librarians with regard to assistance in preparing their research papers. Likewise, it was found that most

students and faculty are unaware that they could consult the librarians on topics and plans for their research, in evaluating the accuracy and authority of the information sources, and proper citation of information sources used.

On the basis of the data presented in Table 4, it was found that the desired outcomes of the library user respondents as a result of using the library facilities is, they will learn to value the library as a place for learning (545). This only shows that the students and faculty of SUCs recognized the importance of creating learning infrastructures that are contributory to student success. Considering the changing learning patterns of students, the result signifies the need to provide various library spaces in academic libraries of SUCs that have educational value to students and faculty.

Table 4.

Desired Outcomes by the Library Users in Terms of Library Physical Set-up and Facilities

Outcome	Frequency	Rank
A. Students (n=325)		
Students engage technology to learn and communicate with library personnel.	317	1
Students evaluate the library as cutting-edge in technology.	288	2
B. Faculty (n=321)		
Faculty judge the library's pedagogical methods using technology to be sufficient for their purposes.	308	1
C. Students and Faculty (N=646)		
Students and faculty value the library as a place for learning	545	1

Findings in the study of Lomas and Oblinger (2019) revealed that students preferred learning experiences that are digital, connected, experiential and immediate, and social. This claim is in consonance with the students' desired outcomes that they prefer to engage with technology to learn and communicate with library personnel (317) and the desired outcomes of faculty that they will judge the library's pedagogical methods of using technology to be sufficient for their purposes (308). Aggregately, results denote that the library users recognized the positive effect of technology both in students' academic life and faculty members' research and scholarly works.

Activities to Achieve the Desired Library Outcomes as Perceived by Library Users

As a matter of policy, interesting and challenging activities should be aligned with the desired library outcomes. For this purpose, the recommended library activities of CHED and AACCUP including those that are being implemented by the academic libraries of SUCs served as indicators to determine the alignment of these activities with the desired outcomes of the library users.

Table 5.

Extent of Agreement of the Library Users on the Library Activities to Achieve the Desired Outcomes in Terms of Library Administration and Staff (N=646)

Library Activity	Desired Outcome/s	Weighted Mean	Descriptive Equivalent
Parameter A: Administration			
The library should develop a clear statement of its goals and objectives in conformity with the mandate of the institution.	Students are able to describe the role of the library in improving their academic performance.	4.26	Strongly Agree
	Students and faculty articulate the value of the library in the student's educational experience.		
The Head Librarian should direct and supervise the total operation of the library and be responsible for the administration of its resources and services.	Students who have more contact with the library show higher levels of improvement in academic performance.	4.11	Agree
Parameter B: Staff			
The library should have qualified staff.	Students and faculty consult with librarians on work requiring information resources.	4.33	Strongly Agree
	Faculty seek the input of librarians on course and assignment development.		
	Faculty include information literacy learning outcomes in their syllabi.		
Library personnel should be sufficient in quality and quantity to meet the diverse teaching and research needs of faculty and students.	Faculty and students consider library personnel sufficient in quantity to meet their research and instruction needs.	4.27	Strongly Agree
	Faculty and students consider library personnel sufficient in quality to meet their research and instruction needs.		

Table 6.

Extent of Agreement of the Library Users on the Library Activities to Achieve the Desired Outcomes in Terms of Library Collection Management (N=646)

Library Activity	Desired Outcome	Weighted Mean	Descriptive Equivalent
The library should provide sufficient research books and materials to supplement the clients' curricular needs.	Students discover the appropriate library resources needed for their coursework.	4.32	Strongly Agree
Library collection should be organized according to an accepted scheme of classification and standards code of cataloguing.	Students and faculty judge access to collections sufficient to support their educational and research needs.	4.30	Strongly Agree
The library should provide 3-5 book/journal titles for professional subjects in the major fields of specialization.	Students increasingly use library collections for both curricular and co-curricular information needs.	4.18	Agree
The Collection Development Policy should be regularly reviewed by the Library Committee and fully implemented by the library personnel.	Students and faculty are satisfied with the collections provided by libraries for their educational, business, and research needs.	4.13	Agree
A regular weeding-out program should be conducted to maintain a relevant and updated collection.	Students discover the appropriate library resources needed for their coursework.	3.91	Agree
The library should maintain an extensive (at least 15% of the total) Filipiniana collection.	Students increasingly use library collections for both curricular and co-curricular information needs.	3.91	Agree

As to collection management, the library users strongly agreed that library activities that include provision of sufficient books and materials that will support the curricular offerings of SUCs (4.32) and organization of library collection according to accepted scheme of classification and standards code of cataloguing (4.30) are vital in order to achieve their desired library outcomes. Considering the insufficient number of core collection of academic libraries, the findings imply that library users are demanding for sufficient books and materials needed for the curricular programs of SUCs. Although the core collections are classified according to the accepted scheme of classification and standards code of cataloguing, the library users found that access to location is limited. With this finding, it implies that library users have difficulty in retrieving materials. Thompson (2002) suggested on the responsibility shifts from librarians teaching students how to locate materials, to faculty and librarians working together to embed teaching and learning of information literacy skills systematically in syllabi and curriculum.

Meanwhile, conducting weeding-out programs (3.91) and maintaining an extensive Filipiniana collection (3.91) although obtained the lowest ratings among the library activities, these can still contribute in achieving the desired the library outcomes since the assessments of students and faculty were still within the agreeable equivalent. The academic libraries, in

spite of having a rich Filipiniana collection, findings denote that library users preferred foreign publications for their references in their research endeavors. In response to this, academic libraries of SUCs may consider promoting local publication in order to support their curricular programs.

Table 7

Extent of Agreement of the Library Users on the Library Activities to Achieve the Desired Outcomes in Terms of Library Services and Utilization (N=646)

Library Activity	Desired Outcome/s	Weighted Mean	Descriptive Equivalent
Librarians and staff should be available during library hours to assist and provide library services.	Students engage with librarians in a variety of ways and contexts.	4.48	Strongly Agree
The library should promote and disseminate its programs through a regular announcement of its new acquisitions of print materials (books, journals, and magazines), resources, facilities, and services.		4.40	Strongly Agree
The library should be open at least 54 hours per week for the College/Academic Unit or 60 hours per week for the Institution.		4.32	Strongly Agree
Library personnel should collaborate with campus partners to provide opportunities for faculty professional development.	<p>Faculty participate in workshops and other professional opportunities provided by librarians in collaboration with other campus partners.</p> <p>Faculty put into practice techniques to embed information literacy as a consequence of library-involved professional development.</p> <p>Faculty choose critical steps in research assignments that are needed for student understanding as a consequence of library-involved professional development.</p> <p>Faculty judge that their students have improved after applying skills from library involved professional development.</p> <p>Faculty judge that their research assignments have improved after applying skills from library-involved professional development.</p> <p>Faculty judge librarians to be collaborators in educating students.</p> <p>Faculty describe librarians as sources of help to their students.</p> <p>Faculty positively rate their experiences in workshops and other professional opportunities provided by librarians in collaboration with other campus partners.</p>	4.24	Strongly Agree

Continuation of Table 7

Library Activity	Desired Outcome/s	Weighted Mean	Descriptive Equivalent
<p>Statistical data on the utilization of various resources and services should be compiled and used to improve the library collection and operations.</p>	<p>Students and faculty are satisfied with library services.</p>	<p>4.21</p>	<p>Strongly Agree</p>
<p>Library personnel should collaborate with faculty to embed information literacy learning outcomes into curricula, courses, and assignments.</p>	<p>Faculty include information literacy learning outcomes in their syllabi.</p> <p>Faculty require increasingly sophisticated demonstration of student information literacy learning outcomes as students proceed to graduation.</p> <p>Faculty evaluate program curricula for effectiveness in supporting the learning of information literacy skills.</p> <p>Faculty value librarian input on teaching and learning techniques.</p> <p>Students achieve a passing score on their test.</p> <p>Students include a variety of appropriate resources in bibliographies.</p> <p>Students articulate rationale for evaluating resources.</p> <p>Students demonstrate ability to define problems, access and evaluate resources, and use information ethically.</p> <p>Students evaluate websites for suitability to their research needs.</p>	<p>4.18</p>	<p>Agree</p>
<p>The library should create and maintain interfaces and system architectures that include all resources and facilitates access from preferred user starting points.</p>	<p>Students and faculty can access collections needed for educational and research needs from all user locations.</p> <p>Students and faculty choose the library web interface as one of the first steps in their finding activities.</p> <p>Students and faculty demonstrate effective access to library resources no matter what their starting point.</p> <p>Students and faculty integrate library interfaces and architectures into their daily search behaviors.</p> <p>Students and faculty judge the library as up to date in methods provided for access.</p> <p>Students and faculty judge integration of library interfaces and resources found through the library as one reason for their success.</p>	<p>4.17</p>	<p>Agree</p>

Continuation of Table 7

Library Activity	Desired Outcome/s	Weighted Mean	Descriptive Equivalent
The library should provide one-on-one assistance through multiple platforms to help users find information.	<p>Students and faculty enhance their research skills through one-on-one consultation with librarians.</p> <p>Students and faculty expand the types of sources (e.g., multiple formats—books, journals, primary sources, etc.) consulted when doing research as a result of a one-on-one consultation with librarians.</p> <p>Students and faculty readily transfer the skills learned through one-on-one consultation with a librarian to other research contexts/assignments.</p> <p>Students and faculty recommend the one-on-one research assistance to their classmates and/or friends.</p>	4.05	Agree

As to services and utilization, it was found that the availability of librarians and staff during library hours to assist and provide library services (4.48); promotion and dissemination of library programs through regular announcement of new acquisitions, resources and services (4.40); provision of 54 to 60 hours of library services per week (4.32); collaboration of library personnel with campus partners to provide opportunities for faculty professional development (4.24) and use of statistical data as bases in upgrading their library collections and operations (4.21) are essential activities that the academic libraries of SUCs should implement to achieve their desired library outcomes as manifested in the highly agreeable assessments of the library users. Findings in this parameter denote that library users expect library personnel to be proactive by being part of their team (Oakleaf, 2010) . Likewise, the studies of Brown (2012) and Blackmore (2011) on the use of surveys , focus group discussion and observation in gathering data to establish evidence that can be associated with the finding of the present study with respect to the use of statistical data as baseline information in upgrading the library collections and operations.

Similar with the previous findings of the present study, activities concerning information literacy, creation and maintenance of interfaces and system architectures and research assistance were library activities rated low by the library users as shown in their assessments of 4.18, 4.17, and 4.05, respectively. In spite of the increasing campaign on the implementation of comprehensive information literacy programs as revealed in the study of Neal (2011), findings in this parameter indicate that library users are unaware on how information literacy directly linked with lifelong learning. Hence, the academic libraries may conduct study on the level of information literacy awareness of the students and faculty of SCUs to determine the components to be included in their information literacy programs including strategies on how they can be applied.

Of all identified library activities, provisions on physical set-up and facilities garnered the highest assessment from the library user respondents which signifies that the initiatives of most SUCs in upgrading their library infrastructure have positive effect to their students and faculty. During the ocular visit of the researcher to the academic libraries of SUC respondents, it was found that most of them are presently upgrading their infrastructure.

With this initiative, the library users are expecting that their academic libraries can provide an environment conducive to learning (4.55); spacious learning spaces (4.55); collaborative areas (4.52); and IT infrastructure (4.33) in the hope that this initiative will result in achieving their desired library outcomes with regard to physical set-up and facilities as shown in their highly agreeable assessments.

Table 8

Extent of Agreement of the Library Users on the Library Activities to Achieve the Desired Outcomes in Terms of Library Physical Set-up and Facilities (N=646)

Library Activity	Desired Outcome/s	Weighted Mean	Descriptive Equivalent
The environment in the library should be conducive to learning.	Students and faculty value the library as a place for learning	4.55	Strongly Agree
Spacious reading areas should be provided.		4.55	Strongly Agree
Spacious collaborative areas should be provided.		4.52	Strongly Agree
The library should have IT infrastructure to keep current with advances in teaching and learning technologies.	<p>Students evaluate the library as cutting-edge in technology.</p> <p>Faculty judge the library's pedagogical methods using technology to be sufficient for their purposes.</p> <p>Students engage technology to learn and communicate with library personnel.</p>	4.33	Strongly Agree

This finding is related to the study of Head (2016) in which she revealed that most library projects had allocated spaces to support the academic learning activities such as collaborative, individual study, tutoring by campus learning partners, and occasional classes taught by instructors.

Library Outcomes Planned to Achieve by Librarians

To measure the extent of contribution of the academic libraries to student lifelong learning, the library outcomes expected to be demonstrated by the students and faculty should be initially identified in order to establish baseline information in developing library programs

and initiatives. Anent to this, an intensive review of the library standards of CHED, PAARL, AACUP and the Standards for Libraries in Higher Education of the American Library Association (2011) was conducted to determine the possible library outcomes considering the current practices and trends among academic libraries of SUCs.

The library outcomes, as argued in this study, feature the core competencies of library users to address their information seeking behavior and its application to their academic and research activities, and their ability to engage in lifelong learning. The responses of the librarian respondents were organized according to 7 parameters, namely: Administration, Staff, Collection Management, Services and Utilization, Physical Set-up and Facilities, Finance and Linkages.

Finding with respect to library outcomes planned to achieve by librarians of SUCs in terms of administration as shown in Table 9 denotes that their primary desired library outcomes is basically the demonstration of library financial support by the school administration through appropriate resource allocation, which means adequate fiduciary, supplemental and external funds (21). Since library budget allocated to academic libraries is insufficient to sustain their operations, the librarians of SUCs are soliciting additional support from their administrators through allocation of sufficient funds. In the study conducted by Oberg (2006) involving school administrators who support the library program and librarians, indicate that administrators' support occurs through 4 key roles: as a supervisor working directly with librarians, as a model demonstrating personal commitment, as a manager enabling the program, and as a mentor providing visibility and importance. Considering the present status of the academic libraries, the current organizational set-up of SUCs showing that the Head Librarians directly report to the Vice President for Academic Affairs and the existence of functional library committees that serve as an advisory body to review that library policies and programs, attendance to professional development programs are possible factors that will evoke commitment among administrators to support their respective libraries. Likewise, personal commitment among librarians can be demonstrated through implementation of programs that will develop the information literacy skills of students and advocacies that will foster the sense of responsibility among users as they use the library collection such that the indispensable role of libraries in students' academic life will be evident to the academic community.

Table 9

Library Outcomes Planned to Achieve by Librarians of SUCs in Terms of Library Administration and Staff (N=22)

Outcome	Frequency	Rank
A. Administration		
The campus administration demonstrates library support through appropriate resource allocation.	21	1
Students who have more contact with the library show higher levels of improvement in academic performance.	20	2
Students and faculty articulate the value of the library in the student's educational experience.	19	3
Students are able to describe the role of the library in improving their academic performance.	15	4
B. Staff		
Faculty and students consider library personnel sufficient in quality to meet their research and instruction needs.	19	1
Faculty and students consider library personnel sufficient in quantity to meet their research and instruction needs.	18	2
Students and faculty consult with librarians on work requiring information resources.	18	2
Faculty include information literacy learning outcomes in their syllabi.	18	2
Faculty seek the input of librarians on course and assignment development.	17	4

As to library outcomes concerning library staff, sufficiency in quality pertains to competency while quantity pertains reasonable size of library personnel to meet the research and instructional needs of library users (19 and 18, respectively). In this study, competency of staff could be measured through the level of satisfaction of library users on their learning engagement with the librarians. The size of the library personnel, on the other hand, deals with the effect to overall services of the library to meet the information needs of the library users in a timely manner. In most cases, SUCs consider the number of student population in determining the number of staff to be assigned in their respective libraries. Although this policy would be beneficial to SUCs with a good number of student population, it is also important to consider the nature of services, programs and advocacies of the libraries for the benefit of SUCs with small student population. For better understanding, the quality in this context refers to attributes of librarians that make them effectiveness while the quantity refers to the attributes that make them efficiency.

Table 10

Library Outcomes Planned to Achieve by Librarians of SUCs in Terms of Library Collection Management (N=22)

Outcome	Frequency	Rank
Students discover the appropriate library resources needed for their coursework.	17	1
Students and faculty judge access to collections sufficient to support their educational and research needs.	17	1
Students increasingly use library collections for both curricular and co-curricular information needs.	14	2
Students and faculty are satisfied with the collections provided by libraries for their educational, business, and research needs.	14	2

In reference to Tables 10 and 2, data revealed that both librarians and library users have similar assessment on the desired outcomes with regard to collection management. This means that both library users and librarians agree that the activities being undertaken by the academic libraries of SUCs concerning collection management will result to students' ability to discover appropriate library resources needed for their coursework (17) and library users' positive assessment on access to collection as sufficient to support their educational research needs (17). These findings are in consonance with the library learning outcomes concerning to the use of available collection among students of Portland State University Library (2012) in which they expect that students will effectively search information sources and seek out sources from diverse perspectives. To translate the AACCUP's library outcomes with respect to collection management since this is the library standard being used by SUCs, it is essential that academic libraries of SUCs may articulate the effect of having adequate, up-to-datedness and balanced core collection, and the sufficiency of collection in relation to students' information literacy skills and how these collections contribute in students' academic performance. Likewise, the collection development program of SUCs which is a collaborative effort of the faculty and librarians may be reviewed regularly to ensure that the resources that will be provided to students will not only contribute to positive academic performance but more importantly will eventually develop their ability to seek out other sources that will broaden their perspectives.

Table 11

Library Outcomes Planned to Achieve by Librarians of SUCs in Terms of Library Services and Utilization (N=22)

Outcome	Frequency	Rank
Students engage with librarians in a variety of ways and contexts.	21	1
Students and faculty are satisfied with library services.	19	2
Students and faculty can access collections needed for educational and research needs from all user locations.	18	3
Faculty include information literacy learning outcomes in their syllabi.	18	3
Faculty put into practice techniques to embed information literacy as a consequence of library-involved professional development.	17	4
Faculty require increasingly sophisticated demonstration of student information literacy learning outcomes as students proceed to graduation.	16	5
Faculty evaluate program curricula for effectiveness in supporting the learning of information literacy skills.	16	5
Faculty value librarian input on teaching and learning techniques.	16	5
Students include a variety of appropriate resources in bibliographies.	16	5
Faculty judge librarians to be collaborators in educating students.	16	5
Faculty describe librarians as sources of help to their students.	16	5
Students and faculty demonstrate effective access to library resources no matter what their starting point.	16	5
Students and faculty integrate library interfaces and architectures into their daily search behaviors.	16	5
Students and faculty recommend the one-on-one research assistance to their classmates and/ or friends.	15	13
Students demonstrate ability to define problems, access and evaluate resources, and use information ethically.	15	13
Faculty choose critical steps in research assignments that are needed for student understanding as a consequence of library-involved professional development.	15	13
Students and faculty choose the library web interface as one of the first steps in their finding activities.	14	16
Faculty participate in workshops and other professional opportunities provided by librarians in collaboration with other campus partners.	14	16
Students achieve a passing score on their test.	13	18

Continuation of Table 11

Outcome	Frequency	Rank
Students articulate rationale for evaluating resources.	13	18
Faculty positively rate their experiences in workshops and other professional opportunities provided by librarians in collaboration with other campus partners.	13	18
Students and faculty enhance their research skills through one-on-one consultation with librarians.	13	18
Students and faculty expand the types of sources (e.g., multiple formats—books, journals, primary sources, etc.) consulted when doing research as a result of a one-on-one consultation with librarians.	13	18
Faculty judge that their research assignments have improved after applying skills from library-involved professional development.	12	23
Students and faculty judge the library as up to date in methods provided for access.	12	23
Students and faculty readily transfer the skills learned through one-on-one consultation with a librarian to other research contexts/assignments.	12	23
Students evaluate websites for suitability to their research needs.	10	26
Faculty judge that their students have improved after applying skills from library involved professional development.	10	26
Students and faculty judge integration of library interfaces and resources found through the library as one reason for their success.	10	26

With regard to library outcomes librarians planned to achieve as a result of the library services, Tables 11 and 3 show that the foremost desired outcomes of both librarians and library users in this parameter is to foster students' engagement with the librarians in a variety of ways and contexts (21 and 328, respectively). This ardent desire for a culture of library engagement entails librarians to take the initiative to create collaborative and sustainable partnerships with students and faculty (Santa Clara University Library, 2019). Through this collaborative effort, this will serve as an avenue for librarians to determine innovative ways on how to improve their services considering the changing learning patterns of students.

Likewise, 19 of the librarian respondents aimed to attain service satisfaction as a result students and faculty evaluation on the use the library. Service satisfaction in this context means that academic libraries of SUCs should meet the services expected from them by the students and faculty. In most cases, service satisfaction may serve as a key to gain library users' patronage which would subsequently lead to their intention to spread a word-of-mouth endorsement to other users. Likewise, librarians are expecting that through users' library engagement there is a possibility that it will enhance their ability to access the collection they needed for their educational and research needs (18); and that the faculty will include information literacy learning outcomes in their syllabi (18) and they will put into practice techniques to embed information literacy as a consequence of library-involved professional development (17). In spite of librarians' desire to enhance students' competency on information literacy, it was observed that none among the academic library respondents have information literacy program. Among the reasons of not implementing this program are due to lack of personnel to conduct information literacy session and time allocated to teach

information literacy. In response to these predicaments, there is a need to capacitate librarians to develop and implement information literacy program and as mentioned by Santa Clara University Library (2019) create collaborative and sustainable partnership with the faculty to encourage their students to attend learning sessions on information literacy. On the other hand, almost only half of the librarian respondents desire that students will evaluate the library websites as sustainable to their research needs and a reason for their academic success. This result is due to the fact that there is only 1 academic library among the SUC respondents that has library website— the Central Luzon State University (CLSU) Library. During the time of data gathering, 64 % of the SUC respondents have webpage while 32% use other social media such as Facebook and Twitter. One of the possible consequences of having a webpage is the lesser chance for the academic libraries to widely promote their services and collection. To improve users' engagement, the library should have its own website to retain the interest of students and faculty to browse the services of the library and it would be much easier to library users to navigate using their mobile devices.

Table 12

Library Outcomes Planned to Achieve by Librarians of SUCs in Terms of Library Physical Set-up and Facilities (N=22)

Outcome	Frequency	Rank
Students and faculty value the library as a place for learning.	19	1
Students evaluate the library as cutting-edge in technology.	12	2
Faculty judge the library's pedagogical methods using technology to be sufficient for their purposes.	10	3
Students engage technology to learn and communicate with library personnel.	10	3

Studies show that learning spaces and enabling technologies encourage students to devote more time in the library. In the study conducted by Head (2016), allocating learning spaces in the library will result in achieving information consumption and knowledge creation. These claims serve as baseline information of librarians in order to achieve their primary desired outcomes in relation to physical facilities - to recognize the value of library as a place for learning (21).

Although librarian respondents planned to provide additional learning spaces, results revealed that almost only half of them planned to achieve library outcomes related to the use these spaces for IT related activities of students and faculty due to insufficient fund allocation and lack of library personnel to attend on library IT related issues. Considering the changing learning patterns of students, there is a need to examine the students' habits to determine the spaces best suit to their needs (Lomas & Oblinger, 2019). Librarians must define spaces in response to learning patterns of students to ensure that such spaces can contribute in achieving the institutional outcomes of SUCs.

In addressing the learning space requirements of both students and faculty, this study subsequently asserts that learning spaces of academic libraries of SUCs must be flexible to accommodate emerging information technologies. Meanwhile, reading rooms for library users who preferred an individual learning space to read printed collection and study quietly must be maintained to balance the provision of learning spaces.

Table 13

Library Outcomes Planned to Achieve by Librarians of SUCs in Terms of Library Finances and Linkages (N=22)

Outcome	Frequency	Rank
A. Finances		
The campus administration demonstrates financial support through allocation adequate fiduciary, supplemental and external funds.	22	1
B. Linkages		
The community demonstrates its appreciation of the library.	17	1
The community demonstrates active use of the library.	16	2

It is worthwhile to note that all librarian respondents desire that the campus administration will demonstrate financial support through allocation adequate fiduciary, supplemental and external funds. In this context, it means that financial support from the administration of SUCs is the primary concern of librarians to sustain their operating expenses including programs and projects of their libraries. Although, there are stakeholders that provide financial endowments to academic libraries the donated amount is not sufficient to sustain their regular library programs and promotional activities.

In order to gain library financial support from campus administrator, librarians are encouraged to submit reports showing the library accomplishments and the needs of the academic libraries that will support the institutional outcomes of SUCs. Also, some important points to consider for funding requests include 1) identify library needs and prioritizing them, 2) know the budgeting process of SUCs, and 3) build harmonious relationship with key personnel.

As to linkages, the librarian respondents desired outcomes as a result of their implemented library activities is the community’s appreciation on the public services of the academic libraries of SUCs. This result is due to the fact the librarians of SUCs are encouraged to participate in the extension programs of their respective institutions.

Activities Implemented by Librarians of SUCs to Achieve the Desired Library Outcomes

Library activities served as performance indicators to measure how well the academic libraries of SUCs are achieving their desired outcomes. Aside from library standards, the strategic goals and objectives of the academic libraries of SUCs obtained through interviews served as baseline information in determining the activities that are commonly implemented in academic libraries of SUCs. Since this study looked into the desired change from students and faculty after their engagement with their academic libraries, it is important to ensure that there is alignment between the activities implemented and the desired library outcomes of the academic libraries of SUCs.

Table 14

Extent of Agreement of Librarians on the Library Activities to Achieve the Desired Outcomes in Terms of Library Administration and Staff (N=22)

Library Activity	Desired Outcome/s	Weighted Mean	Descriptive Equivalent
A. Administration			
The annual accomplishment and other reports of the library should be promptly submitted to the higher offices concerned.	The campus administration demonstrates library support through appropriate resource allocation.	5.00	Strongly Agree
A Library Development Plan should be prepared in consultation with the institution's officials and stakeholders.		4.86	Strongly Agree
The Head Librarian should direct and supervise the total operation of the library and be responsible for the administration of its resources and services.	Students who have more contact with the library show higher levels of improvement in academic performance.	4.75	Strongly Agree
The Head Librarian, preferably with an academic rank, should actively participate in the academic and administrative activities of the institution.	The campus administration demonstrates library support through appropriate resource allocation.	4.67	Strongly Agree
The library should develop a clear statement of its goals and objectives in conformity with the mandate of the institution.	Students are able to describe the role of the library in improving their academic performance. Students and faculty articulate the value of the library in the student's educational experience.	4.46	Strongly Agree
B. Staff			
Library personnel should be sufficient in quality and quantity to meet the diverse teaching and research needs of faculty and students.	Faculty and students consider library personnel sufficient in quantity to meet their research and instruction needs. Faculty and students consider library personnel sufficient in quality to meet their research and instruction needs.	4.46	Strongly Agree
The library should have qualified staff.	Students and faculty consult with librarians on work requiring information resources. Faculty seek the input of librarians on course and assignment development. Faculty include information literacy learning outcomes in their syllabi.	4.41	Strongly Agree

As reflected in Table 14, it was found that the librarian respondents strongly agree that the activities being implemented by the academic libraries of SUCs with respect to library administration will result in achieving their desired outcomes. From their assessment, data revealed that library activities which include submission of annual reports with a weighted

mean of 5.00; preparation of library development plan with a weighted mean of 4.86; direct supervision and academic participation of the Head Librarian with weighted means of 4.75 and 4.67, respectively; and conformity of library goals and objectives with their institution's mandate with a weighted mean of 4.46 can serve as performance indicators to measure the achievement of their desired outcomes with respect to library's administrative services. In consonance with these findings, the American Librarians Association (2011) pointed out that library engagement in planning and assessment contributes in achieving the institution's mission.

As to library activities concerning staff, the librarians strongly agreed that in maintaining sufficient and qualified staff (4.46 and 4.41, respectively), the desired library outcomes of students and faculty to consider the library staff as information provider that supplement their research and instruction needs will be achieved. Relative to these findings, the study conducted by the ACT Government (2012) expounded the findings of the present study in which they asserted that when teaching and learning is transformed, librarians enhance information literacy, resource the curriculum and help students become critical, creative and collaborative thinkers. Hence, Murungan (2013) suggested that continuous professional education and training programs should be provided for library and information professionals to enable them to cope with the transition and change in library services.

Table 15
Extent of Agreement of Librarians on the Library Activities to Achieve the Desired Outcomes in Terms of Library Collection Management (N=22)

Library Activity	Desired Outcome/s	Weighted Mean	Descriptive Equivalent
The library should provide sufficient research books and materials to supplement the clients' curricular needs.	Students discover the appropriate library resources needed for their coursework.	4.43	Strongly Agree
A regular weeding-out program should be conducted to maintain a relevant and updated collection.		4.38	Strongly Agree
Library collection should be organized according to an accepted scheme of classification and standards code of cataloguing.	Students and faculty judge access to collections sufficient to support their educational and research needs.	4.38	Strongly Agree
The library should maintain an extensive (at least 15% of the total) Filipiniana collection.	Students increasingly use library collections for both curricular and co-curricular information needs.	4.14	Agree
The library should provide 3-5 book/journal titles for professional subjects in the major fields of specialization.		4.13	Agree
The Collection Development Policy should be regularly reviewed by the Library Committee and fully implemented by the library personnel.	Students and faculty are satisfied with the collections provided by libraries for their educational, business, and research needs.	4.13	Agree

Meanwhile, findings on library activities concerning collection management show that librarians strongly agreed that library users can discover the appropriate library resources they need for their coursework and will judge access to collections sufficient to support their educational and research needs if the academic libraries of SUCs will conduct regular weeding-out program; provide sufficient research books; and organize collection according to standard classification (4.38, 4.43, 4.38, respectively). With these findings, strong partnership between faculty and librarians should be established to streamline the policies of weeding-out program, acquisition of research books, and organization of collection (Bruce, 2001 and AACCUP, 2014). Even though the librarian respondents agreed that regular review of the collection development policy and provision of 3-5 book titles for professional subject will contribute in achieving their desired library outcomes, it was found that these were rated the least among the activities (both 4.13) despite AACCUP's recommendations that libraries should have a system of progressive development of the library collection to meet the research needs of students and faculty. This only shows that these activities are the least priority of the academic libraries of SUCs.

Table 16
Extent of Agreement of Librarians on the Library Activities to Achieve the Desired Outcomes in Terms of Library Services and Utilization (N=22)

Library Activity	Desired Outcome/s	Weighted Mean	Descriptive Equivalent
Librarians and staff should be available during library hours to assist and provide library services.	Students engage with librarians in a variety of ways and contexts.	4.88	Strongly Agree
The library should promote and disseminate its programs through a regular announcement of its new acquisitions of print materials (books, journals, and magazines), resources, facilities, and services.		4.88	Strongly Agree
The library should be open at least 54 hours per week for the College / Academic Unit or 60 hours per week for the Institution.		4.75	Strongly Agree
Statistical data on the utilization of various resources and services should be compiled and used to improve the library collection and operations.	Students and faculty are satisfied with library services.	4.75	Strongly Agree

Continuation of Table 16

Library Activity	Desired Outcome/s	Weighted Mean	Descriptive Equivalent
<p>Library personnel should collaborate with faculty to embed information literacy learning outcomes into curricula, courses, and assignments.</p>	<p>Faculty include information literacy learning outcomes in their syllabi.</p> <p>Faculty require increasingly sophisticated demonstration of student information literacy learning outcomes as students proceed to graduation.</p> <p>Faculty evaluate program curricula for effectiveness in supporting the learning of information literacy skills.</p> <p>Faculty value librarian input on teaching and learning techniques.</p> <p>Students achieve a passing score on their test.</p> <p>Students include a variety of appropriate resources in bibliographies.</p> <p>Students articulate rationale for evaluating resources.</p> <p>Students demonstrate ability to define problems, access and evaluate resources, and use information ethically.</p> <p>Students evaluate websites for suitability to their research needs.</p>	<p>4.17</p>	<p>Agree</p>
<p>Library personnel should collaborate with campus partners to provide opportunities for faculty professional development.</p>	<p>Faculty participate in workshops and other professional opportunities provided by librarians in collaboration with other campus partners.</p> <p>Faculty put into practice techniques to embed information literacy as a consequence of library-involved professional development.</p> <p>Faculty choose critical steps in research assignments that are needed for student understanding as a consequence of library-involved professional development.</p> <p>Faculty judge that their students have improved after applying skills from library involved professional development.</p> <p>Faculty judge that their research assignments have improved after applying skills from library-involved professional development.</p> <p>Faculty judge librarians to be collaborators in educating students.</p> <p>Faculty describe librarians as sources of help to their students.</p> <p>Faculty positively rate their experiences in workshops and other professional opportunities provided by librarians in collaboration with other campus partners.</p>	<p>4.16</p>	<p>Agree</p>

Continuation of Table 16

Library Activity	Desired Outcome/s	Weighted Mean	Descriptive Equivalent
<p>The library should create and maintain interfaces and system architectures that include all resources and facilitates access from preferred user starting points.</p>	<p>Students and faculty can access collections needed for educational and research needs from all user locations.</p> <p>Students and faculty choose the library web interface as one of the first steps in their finding activities.</p> <p>Students and faculty demonstrate effective access to library resources no matter what their starting point.</p> <p>Students and faculty integrate library interfaces and architectures into their daily search behaviors.</p> <p>Students and faculty judge the library as up to date in methods provided for access.</p> <p>Students and faculty judge integration of library interfaces and resources found through the library as one reason for their success.</p>	<p>4.13</p>	<p>Agree</p>
<p>The library should provide one-on-one assistance through multiple platforms to help users find information.</p>	<p>Students and faculty enhance their research skills through one-on-one consultation with librarians.</p> <p>Students and faculty expand the types of sources (e.g., multiple formats—books, journals, primary sources, etc.) consulted when doing research as a result of a one-on-one consultation with librarians.</p> <p>Students and faculty readily transfer the skills learned through one-on-one consultation with a librarian to other research contexts/assignments.</p> <p>Students and faculty recommend the one-on-one research assistance to their classmates and/ or friends.</p>	<p>4</p>	<p>Agree</p>

As to library activities concerning services and utilization, the availability of library personnel during service hours (4.88); promotion and dissemination of library programs (4.88); provision of at least 54-60 library hours (4.75) and use of library statistical data (4.75) are activities in which librarians strongly agreed to be fully implemented in academic libraries of SUCs in order to achieve their desired outcomes with regard to services, specifically, closer engagement with students and faculty and improvement of information literacy skills among library users (Table 11). Concerning statistics, Seeber (2013) claimed that by sharing the evaluation results to faculty will consequently build stronger partnership with the faculty. Meanwhile, Murugan (2013) also suggested to develop new technology that

makes direct access to information easier for users to enable them to learn information skills. As to access tools, discovery tools could be offered to users to search the library catalog and journal articles. In implementing these activities, usability testing from the user should be conducted to determine the effectiveness of interface to users (Fagan, et al., 2012; Gross & Sheridan, 2011).

Table 17
Extent of Agreement of Librarians on the Library Activities to Achieve the Desired Outcomes in Terms of Library Physical Set-up and Facilities (N=22)

Library Activity	Desired Outcome/s	Weighted Mean	Descriptive Equivalent
The environment in the library should be conducive to learning.	Students and faculty value the library as a place for learning	4.75	Strongly Agree
Spacious reading areas should be provided.		4.50	Strongly Agree
Spacious collaborative areas should be provided.		4.38	Strongly Agree
The library should have IT infrastructure to keep current with advances in teaching and learning technologies.	Students evaluate the library as cutting-edge in technology.	3.91	Agree
	Faculty judge the library's pedagogical methods using technology to be sufficient for their purposes.		
	Students engage technology to learn and communicate with library personnel.		

Findings with respect to physical set-up and facilities, the librarian respondents strongly agreed that the library's provisions on creating an environment conducive to learning (4.75), spacious reading areas (4.50) and collaborative areas are activities that will result in achieving their desired outcomes in valuing their library as a place for learning by students and faculty. Although, librarian respondents agreed that the provision for IT infrastructure can contribute in achieving their desired outcomes, it has the lowest rating among the library activities which signifies that there are limited provisions for IT infrastructure in academic libraries of SUCs. These findings are in contrast with the assertion of ALA (2011) that libraries must be designed in a way where users can interact with ideas in both physical and virtual environment to expand learning and facilitate the creation of new knowledge. To complement this finding, a research on the role of IT infrastructure in academic libraries may be conducted to determine the appropriate IT infrastructure and programs to upgrade their services to the academic community.

Relative to the library activities concerning finances, librarian respondents signified their strong agreement that the preparation and management of library budget (4.64) including the utilization of all fees and funds for the upgrading of library resources and services (4.63) is an integral activity that will result in achieving their desired outcome on building a solid financial support from the administration of SCUs. To increase library fund, Neal (2011) suggested to include entrepreneurial activities and adopt effective business partnership within the university and with outside organizations to help grow the business programs for the library

Table 18

Extent of Agreement of Librarians on the Library Activities to Achieve the Desired Outcomes in Terms of Library Finances and Linkages (N=22)

Library Activity	Desired Outcome/s	Weighted Mean	Descriptive Equivalent
A. Finances			
The Head Librarian and staff, in coordination with other officials of the Institution, should prepare and manage the annual library budget.	The campus administration demonstrates financial support through allocation adequate fiduciary, supplemental and external funds.	4.64	Strongly Agree
All fees and funds allocated for library resources and services should be utilized solely for such purposes and are properly audited.		4.63	Strongly Agree
B. Linkages			
The library should establish consortia, networking and resource sharing with other institutions and library collaborative activities.	The community demonstrates active use of the library.	4.27	Strongly Agree
Linkages with other institutions and funding agencies should be explored and established for purposes of enhancing library facilities and resources.	The community demonstrates its appreciation of the library.	4.15	Strongly Agree

With regard to library activities on linkages, the librarian respondents strongly agreed that the community will demonstrate its appreciation and active use the library if consortia, networking and resources sharing with other institutions (4.27) and linkages with other institutions (4.15) are explored and established. These activities will require the creation of memorandum of understanding for the purpose of setting forth the terms and conditions including responsibilities of parties involved in library networking.

In summary, the librarian respondents as shown in Table 19 strongly agreed that all library activities can contribute in achieving their desired library outcomes.

Table 19

Summary of Activities Librarians Implement to Achieve the Library Outcomes

Parameter	Weighted Mean	Descriptive Equivalent
Parameter A: Administration	4.73	Strongly Agree
Parameter B: Staff	4.48	Strongly Agree
Parameter C: Collection Management	4.29	Strongly Agree
Parameter D: Services and Utilization	4.23	Strongly Agree
Parameter E: Physical Set-up and Facilities	4.26	Strongly Agree
Parameter F: Finance	4.66	Strongly Agree

The highest rating is on the administrative services of the library (4.73) which denotes that the aforementioned activities in this parameter have a high probability of achieving the desired library outcomes. Although, the assessment of librarian respondents denotes strong agreement on activities pertaining to collection management (4.29) services and utilization (4.23) and physical set-up and facilities (4.26) substantial activities and programs projects are required to ensure that the desired outcomes in these aspects will be achieved.

Contribution of the Desired Library Outcomes to the Institutional Outcomes

To ensure the alignment of the desired library outcomes with the SUC’s institutional outcomes, the study used the CHED’s Institutional Sustainability Assessment (ISA) Framework as baseline information to determine how academic libraries can contribute in achieving the outcomes along its Key Result Areas (KRA), namely: KRA 1 Governance and Management, KRA 2 Quality of Teaching and Learning, KRA 3 Quality of Professional Exposure, Research, & Creative Work, KRA 4 Support for Students, and KRA 5 Relations with the Community. Since CHED is promoting ISA as a quality assurance process, a total of 22 quality assurance officers served as respondents to assess the extent to which the desired library outcomes of library users and librarians can contribute to their respective institutions.

In analysing and interpreting data, responses of the quality assistance officer respondents from the survey instrument were tabulated and informal interview to these respondents were organized according to strengths, weaknesses and comments. The results are presented in Figure 3 and organized according to desired library outcomes of library users vis-à-vis key result areas of CHED’s ISA.

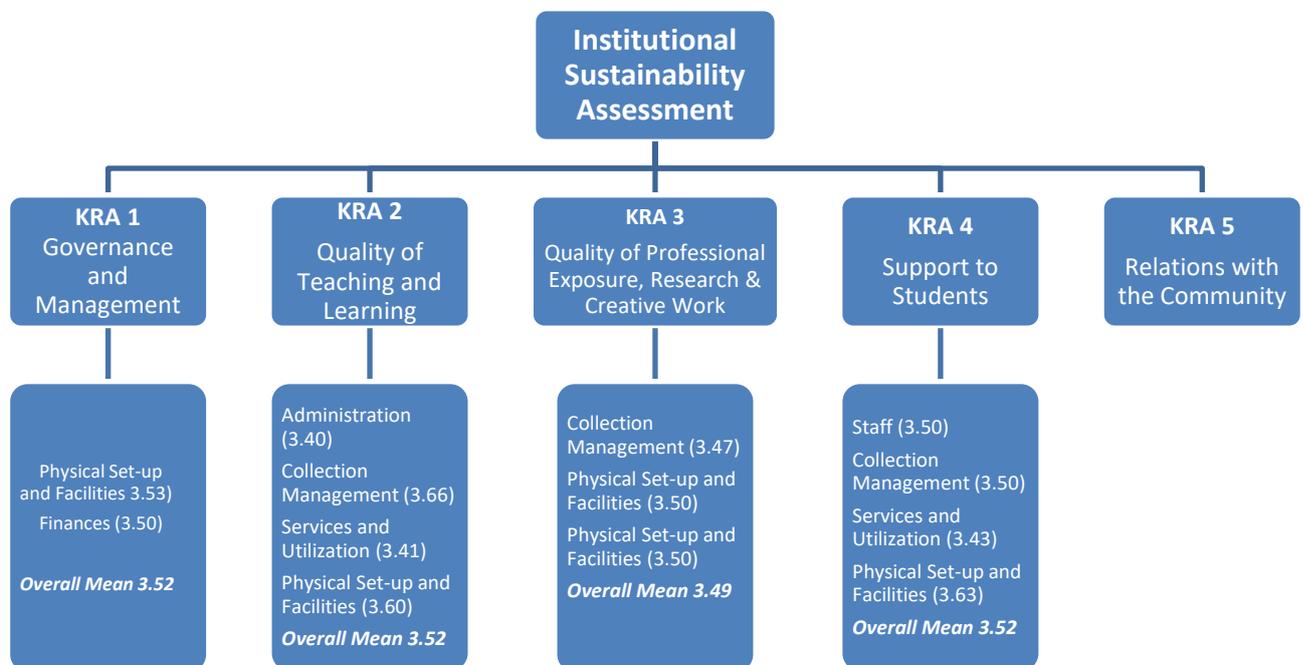


Figure 3. Alignment of the Institutional Outcomes with the Desired Library Outcomes

As to the extent of contribution of library outcomes with respect to library administration, three (3) out of the four identified outcomes can contribute to the institutional outcomes of SUCs. In the assessment conducted, it was found that the quality assurance respondents agree that in achieving the library outcome on the articulation of students and faculty on the value of the library in the student's educational experience can contribute in achieving the institutional outcomes of SUCs with respect to Governance and Management (KRA1); Quality of Teaching and Learning (KRA 2) and Support to Students (KRA 4) as revealed in their assessments of 3.50, 3.63, and 4.00, respectively. However, the quality assurance respondents were undecided on the extent of contribution of this outcome to their institutional outcomes with respect to Quality of Professional Exposure, Research, and Creative Work (KRA 3) and Relations with the Community (KRA5) as shown in their ratings of 3.38 and 2.75, respectively.

Another desired library outcome as identified by the respondents was the demonstration of library support by the campus administration through appropriate resource allocation in which the quality assurance respondents claimed that this can contribute in attaining the institutional outcomes with respect to Quality of Teaching and Learning (KRA 2) and Support to Students (KRA 4) as revealed in their assessments of 3.50 and 3.88, respectively. On the other hand, it was found that this library outcome is vague on its extent of contribution to institutional outcomes concerning to Governance and Management (KRA 1), Quality of Professional Exposure, Research and Creative Work (KRA 3), and Relations with the Community (KRA 5) as shown in their assessments of 3.38, 3.38, 2.88, respectively which correspond to undecided descriptive equivalent.

Additionally, the quality assurance respondents agreed that the desired library outcomes on the achievement of higher levels of academic improvement as a result of the students' interaction with their respective libraries can contribute in achieving all institutional outcomes of SUCs except to Relations with the Community (KRA 5) as revealed in their assessment of 2.88. This finding is in consonance with the assertion of ALA (2011) that library outcomes on institutional effectiveness can be measured through students' improvement in their academic performance through their contact with the library.

As to library outcomes on staff, the quality assurance respondents had identified three out of five library outcomes that can contribute in achieving the institutional outcomes. Based from the survey conducted, it was found that if faculty and students consider library personnel as sufficient in quality to meet their research and instruction needs, it will result in achieving the institutional outcomes of SUCs pertaining to Support to Students (KRA 4). This result complements the study conducted by Emmons and Wilkinson (2010) in which they claimed that there is a positive relationship between the traditional input and output measures of staff, collections and services of the library with the student retention and graduation rates. Upon graduation, Oakleaf (2010) likewise claimed that librarians help students secure jobs by sharing information resources. On the other hand, respondents asserted that they were undecided if this library outcome can contribute to Governance and Management (KRA1), Quality of Teaching and Learning (KRA 2), Quality of Professional Exposure, Research, and Creative Work (KRA3), and Relations with the Community (KRA5) as shown in their assessments of 2.88, 3.38, 3.13 and 2.88, respectively.

Similarly, the quality assurance respondents agreed that the library outcomes concerning library users' consultation with the librarians on work requiring information resources and faculty members' information behaviour in seeking the input of librarians on course and

assignment development can contribute in achieving the institutional outcomes in all areas except for Relations with the Community (KRA5) as shown in their assessments of 3.13 and 3.00, respectively, which are equivalent to undecided descriptive equivalent. With these results, it only shows that the role of librarians as information consultant in research and instruction is being recognized by the quality assurance officers of SUCs. The library consultation is knowingly contributing in research productivity of faculty and other interdisciplinary researches of the campus (Oakleaf,2010 and Jaguszewski & Williams, 2013). Meanwhile, data in Table 9.2. show that almost all desired library outcomes with respect to collection management have their corresponding contribution in attaining the institutional outcomes of SUCs except on the desired outcomes that students and faculty are satisfied with the collections provided by libraries for their educational, business, and research needs since these outcomes obtained assessments that are equivalent to undecided in all areas of institutional outcomes.

On the other hand, the library outcomes to which the quality assurance respondents are agreeable that can contribute in achieving the institutional outcomes of SUCs include the students' ability to discover the appropriate library resources for their coursework and their increasing use of library collections for both curricular and co-curricular information needs. Results show that these library outcomes can contribute in achieving their institutional outcomes concerning Quality of Teaching and Learning (KRA 2); Quality of Professional Exposure, Research and Creative Work (KRA 3); and Support for Students (KRA 4). As to quality of research and creative works, the findings of the present study is related to the studies conducted by Oakleaf (2010), Herther (2009), and Lyon (2012) in which they revealed that library resources have contributed to citations in grant applications and ranking information. In reference to this, academic libraries may look into the possibility of integrating data management as part of their responsibility. Although these library outcomes can contributory to the aforesaid areas, results show that these may or may not contribute in achieving the institutional outcomes with respect to Governance and Management (KRA 1) and Relations with Community (KRA 5) as revealed in the respondents' assessments of undecided and disagreement results. To some extent, the said respondents were undecided whether the library outcomes on the students and faculty judgement on the access to collections as sufficient to support their educational and research needs can contribute in achieving the institutional outcomes of SUCs with regard to most of the areas of ISA. Since access to collection is the essence of every library, Crow (2002) commended the compiling benefits of creating institutional repositories because of their potential to serve as tangible indicators of a university's quality and to demonstrate the scientific, societal, and economic relevance of its research activities. As to services, the said respondents assessed that 12 out of 29 library outcomes can contribute in achieving the institutional outcomes of SUCs. Of the 12 library outcomes, the said respondents assessed that none of these can contribute to the institutional outcomes concerning Relations to the Community (KRA 5) despite the fact that having an outcome on students' library engagement that includes seeking information concerning community involvement. This result is an indication that the role of the academic library with regard to relation to community needs to redefine in order to recognize its significant contribution as an institution that promotes lifelong learning.

Meanwhile, the library outcomes that can contribute along the 4 areas of the institutional outcomes of SUCs as agreed by the quality assurance respondents included 1) students and faculty can access collections needed for educational and research needs from all user locations; 2) students and faculty demonstrate effective access to library resources no matter what their starting point; 3) students and faculty judge integration of library interfaces and

resources found through the library as one reason for their success; 4) students and faculty expand the types of sources consulted when doing research as a result of a one-on-one consultation with librarians; 5) students engage with librarians in a variety of ways and contexts; 6) Students and faculty are satisfied with library services; 7) faculty judge librarians to be collaborators in educating students; and 8) faculty describe librarians as sources of help to their students. These results shed light on the pivotal role in which libraries play in terms of literacy services in the academe.

In addition, the said respondents affirmed that the library outcomes with regard to the demonstration of students and faculty in choosing the library web interface as one of the first steps in their finding activities; of faculty in valuing librarian's input on teaching and learning techniques; and of students achieving a passing score on their test can contribute to institutional outcomes pertaining to Quality of Teaching and Learning (KRA 2), Quality of Professional Exposure, Research & Creative Work (KRA 3), and Support to Students (KRA 4). In like manner, the desired library outcomes on the judgment of faculty that their students have improved after applying the skills from library involved professional development can contribute in achieving the institutional outcomes with regard to Governance and Management (KRA 1), Quality of Teaching and Learning (KRA 2), and Support to Students (KRA 4). With these results, it shows that the professional development of faculty and librarians can be attributed to the performance management and governance of SUCs. Library outcomes that can somewhat contribute in achieving the institutional outcomes of SUCs included the evaluation of faculty on program curricula as effective in supporting the learning of information literacy skills of students; the use of critical steps in research assignments by the faculty needed for student understanding as a consequence of library-involved professional development; and the integration of library interfaces and architectures of students and faculty into their daily search behaviors. These outcomes can only contribute to only 1 to 2 aspects of the institutional outcomes.

Moreover, the quality assurance respondents agreed that 50 % or 2 out of 4 desired library outcomes can contribute in achieving the institutional outcomes of SUCs. These include the students and faculty valuing the library as a place for learning and the students engaging with technology to learn and communicate with library personnel (EDLO3). In the survey conducted, it was found that these library outcomes can contribute in achieving all areas of the institutional outcomes of SCUs except EDLO3 in which the said respondents were undecided as to the extent of its contribution on KRA5 (3.13).

On the contrary, data show that the assessment of the respondents in relation to the library outcomes of students evaluating the library as cutting edge in technology and faculty judging the library's pedagogical methods using technology to be sufficient for their purposes are somehow can contribute in achieving the institutional outcomes of the SUCs as manifested in their assessment of undecided in all areas.

As to finances, the quality assurance respondents agreed that the library outcome in which the campus administration demonstrates financial support through allocation of adequate fiduciary, supplemental and external funds can contribute in achieving the institutional outcomes with regard to governance and management of SUCs.

As to linkages, the library outcomes in which the community demonstrates its appreciation and active use of the library are found uncertain if these can contribute in achieving the institutional outcomes of SUCs. In an informal interview conducted by the researcher to the

quality assurance respondents, it was found that the indicators showing the involvement of librarians in their extension projects is partially evident. This finding contradicts the report of Oakleaf (2010) that the library resources and services could support the institutional service engagement of higher institution to their communities by providing the community with helpful and reliable information. In resolving this, academic libraries of SUCs needs to reaffirm their role in the community as information providers.

Difference Between the Assessment of Library Users and Librarians on Activities in Achieving the Desired Library Outcomes

To test the hypothesis of this study, Multivariate Analysis of Variance (MANOVA) was used to extract the difference between responses of librarians and library users on library activities that will result in achieving the desired library outcomes.

Table 20
Difference Between Assessment of Library Users and Librarians on Activities

Independent		Value	F	Sig.	Activity	Mean Difference	F	Sig
Type	Wilks' Lambda	0.011	552.712	0.000	ALA	-0.43464	7581.55	0.000
					BLA	-0.20177	7641.65	0.000
					CLA	-0.11310	7414.89	0.000
					DLA	-0.04261	12340.03	0.000
					ELA	0.20701	9804.30	0.000

Legend:
 ALA - Library Activities on Parameter A: Administration
 BLA - Library Activities on Parameter B: Staff
 CLA - Library Activities on Parameter C: Collection Management
 DLA - Library Activities on Parameter D: Services and Utilization
 ELA - Library Activities on Parameter E: Physical Plant and Facilities

As seen from the significance of the Wilk’s lambda, there is a significant difference on the overall assessment of librarians and library users. Looking deeper into the different aspects (type of activity), it turns out that there are significant differences on each type of activity. As such, the null hypothesis that there are no significant differences between the assessment of library users and librarians in the identified activities to achieve their desired library outcomes are rejected.

Moreover, library users are found to have higher expectations than librarians with regard to library activities on Administration, Staff, Collection Management, and Services and Utilization. Librarians on the other hand have higher expectations on library activities with respect to Physical Plant and Facilities (EDA). While, that there are no comparisons for library activities on Finance (FLA) and Linkages (GLA) since library users did not assess these aspects.

Proposed Outcomes-Based Library Standard

The proposed standard for academic libraries of SUCs in the Philippines is designed to guide academic libraries how to be outcomes based on their performance. Considering the role of the academic libraries in promoting information literacy, they must demonstrate and document the extent of their contribution in achieving their institutional outcomes and keep abreast with the changes in the mandate of higher education, including accreditation and internationalization.

In defining library outcomes, the proposed standard used the definition of ACRL which states as “*the ways in which library users are changed as a result of their contact with the library’s resources and programs.*” Therefore, library outcomes are user-centered, whereas performance indicators are library-centered.

To ensure the alignment of the desired outcomes of the academic libraries with the institutional outcomes of SUCs, the findings of this study and inputs of students, faculty members, librarians and quality assurance officers of 22 SUC respondents served as baseline information in designing the proposed standard. Likewise, the library standards of CHED, PAARL, AACUP and Standards for Libraries in Higher Education of the Association of Colleges and Research Libraries (ACRL) were used as reference to comply with issues and trends of library accreditation practices.

The proposed Standard depicts the expected contribution of the academic libraries in achieving their respective institutional outcomes using the CHED’s Institutional Sustainability Assessment (ISA) framework that includes KRA 1 Governance and Management, KRA 2 Quality of Teaching and Learning, KRA 3 Quality of Professional Exposure, Research, and Creative Work, KRA 4 Support for Students and KRA 5 Relations with the community. In structuring the Standard, outcomes-based approach was used in order to demonstrate the value of library activities and the positive effect that these activities have to the academic community.

Standard Structure

The core of the proposed standards are the outcomes of academic libraries SUCs and the performance indicators to measure the extent of achievement of the outcomes. The library outcomes and their corresponding performance indicators are categories into 7 parameters, namely: Library Administration, Collections, Educational Role, Personnel, Discovery, Space and External Relation are aligned according to 5 key result areas of CHED’s ISA.

It adopted the following outcomes-based method as recommended by ACRL:

1. Align library outcomes with the institutional outcomes of SUCs;
2. Identify and select performance indicators that are congruent with their institution’s mission and contribute to institutional effectiveness.
3. Develop user-centered, measurable outcomes that articulate specifically what the user is able to do as an outcome of the performance indicator;
4. Conduct assessments both quantitative and qualitative; and
5. Collect data from assessments that demonstrate degree of success.

Findings, Conclusions and Recommendations

Findings

The following is a summary of the findings in answer to the specific problems of the study.

1. Most of the desired library outcomes of the students and faculty of SUCs include positive effects in the library engagement in relation to the use of facilities and services.
2. To achieve the desired library outcomes, the students and faculty expected that academic libraries of SUCs should implement activities that will upgrade their physical set-up and facilities.
3. The desired library outcomes that almost all librarians aimed to achieve is the sustainable financial initiative of the SUC administration to academic libraries.
4. Librarians strongly agreed that all their planned activities concerning to administration, staff, collection management, services and utilization, finances, physical set-up and facilities and linkages will result in achieving their desired library outcomes.
5. Most of the desired library outcomes of librarians and library users can contribute in achieving the institutional outcomes of SUCs with respect to governance and management, quality of teaching and learning, quality of professional exposure, research, and creative work and support for students. However, none of the desired library outcomes can contribute in achieving the institutional outcomes of SUCs with respect to relations with the community.
6. The comparison between the assessment of library users and librarians on library activities that will result in achieving the desired library outcomes revealed that there are significant differences on each type of activity.
7. The proposed outcomes-based standard for academic libraries is aligned with the institutional outcomes of SUCs and has 7 parameters with respective related performance indicators to specifically measure the level of achievements.

Conclusions

On the basis of the foregoing findings, the following conclusions are drawn:

1. The physical facilities and services of the library have positive effects on student learning.
2. Students and faculty members need library spaces and facilities to facilitate their teaching, learning and research activities.
3. The head librarians of SUCs perform their administrative tasks efficiently to increase financial support from internal sources.
4. All planned activities by the academic libraries of SUCs are aligned and can contribute in achieving their desired library outcomes.
5. The desired library outcomes of SUCs contribute in achieving almost all aspects of the institutional outcomes. However, the community outreach programs of the academic library of SUCs are not yet in place.
6. The null hypothesis that there is no significant difference between the assessment of library users and librarians in the identified activities to achieve their desired library outcomes is rejected.
7. In using the proposed outcomes-based library standards, the academic libraries of SUCs can assess not only the extent of their contribution on student lifelong learning but also their contribution in achieving their institutional outcomes.

Recommendations

From the aforementioned findings and conclusions, the following are highly recommended:

1. Conduct qualitative studies on the:
 - a. impact of the library physical set-up and facilities on the academic performance of students;
 - b. learning spaces in the academic libraries that contribute in achieving the teaching and learning goals of the higher education institutions (HEIs);
 - c. alignment of the community engagement activities of the academic libraries with the mandate of the extension programs of the (HEIs);
 - d. library outcomes measurement to examine whether or not the activities planned are associated with change (for better or worse) in the student learning.
2. To further improve the proposed library standard, it should be presented in a public forum, to academic library associations before submitting to the concerned authorities for their review and evaluation.

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