



THE IMPACT OF QUALITY ASSURANCE SYSTEMS TO MARINDUQUE STATE COLLEGE SELECTED INSTRUCTIONAL SERVICES

CHRISTOPHER J. REBISTUAL

Instructor
Marinduque State College
Marinduque, Philippines
rebistualchristopher@gmail.com

Abstract. *As the world continues to evolve, man also continues to pursue excellence in almost all aspects, thus, he works towards quality. This study aimed to assess the impact of Quality Assurance Systems employed by the Marinduque State College (MSC) in its instructional services as an ISO-certified and AACCUP accredited institution. It sought to answer the current status of the institution's certification and accreditations, the degree of impact of employing Quality Assurance Systems as observed by its stakeholders, and a sustainability model that may further the developments of the institution. The philosophies of Total Quality Management (TQM) gurus like Deming, Juran, and Feigenbaum, and the principles and practices espoused by quality assurance systems like ISO and AACCUP, served as catalysts for the study, applying the quantitative research design and waterfall methodology as applied to research with the main campus in Boac and branches in Sta. Cruz, Torrijos, and Gasan of the Marinduque State College as locale and respondents' sources. With 1,588 respondents composed of faculty, administrators, students, alumni, parents, and community, this study found using statistical tools like mean, ranking, and t-statistics that the employment of quality assurance systems was observed by the stakeholders to be "With High Impact" to "With Very High Impact" across the seven identified instructional services. Employing Quality Assurance Systems in academic institutions is a highly strategic move to ensure the delivery of quality education. A crafted Quality Assurance Sustainability Model for Higher Education was suggested to be implemented.*

Keywords: instructional services, accreditation, certification, quality assurance

1. Introduction

Quality has always been man's ultimate goal as he continues to champion innovations and developments in his ecology. He continues to find ways to better manage the things that he introduces. However, as quality and its management become eminent to society, some become lax in promoting continuous improvement and end up at the minimum required level or even below the required.



Many organizations today undergo a Quality Management System (QMS) evaluation through third-party service providers in pursuit of becoming renowned institutions promoting quality products and services. The establishment of a QMS can be via certification or accreditation. However, in some institutions like in the academe, both certification and accreditation exist as tools to attain acceptable quality levels suited to the needs of its stakeholders.

Nowadays, many institutions worldwide pursue the ISO 9001 certification believing that such would boost their prominence in their niche and further their advancements as they get aligned to the principles espoused by Total Quality Management gurus Deming and Juran.

In the Government Higher Education Institution scenario, accreditation from the Accrediting Agency of Chartered Colleges and Universities in the Philippines (AACCUP), is encouraged to assure quality content and delivery of courses while the certification, like the International Organization for Standardization (ISO), focuses on the overall standardization and control of processes and procedures of the organization.

However, quality is subjective and vague as its appreciation may vary from one perspective to another. This is the reason why ISO was established as the foundation of business operating systems. Though, being ISO 9001 certified is not a guarantee of business excellence (Lieberman, 2011).

Marinduque State College (MSC), being the lone state college in the province of Marinduque sought to belong to the elite group of ISO 9001:2015 certified. In its desire to better its service delivery to its stakeholders, it has undertaken an unprecedented move to keep its quality stature be above the rest among higher education institutions in the province and region as it bids to become a university. Its campaign started several years before its 9001:2008 certification in 2016 and re-certification to 9001:2015 in 2018 by TUV Rheinland Philippines, Inc. MSC, with all its branches, became the first SUC in the MIMAROPA Region to be ISO certified.

The question now is how far has MSC gone in terms of its Quality Assurance Systems? Has its certification and accreditations brought noticeable changes in the way instructional services are provided to its stakeholders? As Erica Olsen (2016) said “Every organization has a portfolio of products or services that it offers to its customers. That portfolio needs to be managed just like your personal investment portfolio.”

To answer the above-stated questions, the researcher was motivated to pursue the assessment with the end view of seeing how the investments of the College in the certifications and accreditations helped in boosting and promoting its thrusts.

Statement of the Problem

With the concern of elucidating the impact of employing Quality Assurance Systems to the College, the researcher was keen to pursue the study. Specifically, this study answered the following questions:

1. What is the status of the Marinduque State College Quality Assurance in terms of the following?
 - 1.1 ISO certification
 - 1.2 Accreditation of academic programs
2. What is the degree of impact of employing Quality Assurance Systems on the delivery of instructional services?
 - 2.1 Syllabus preparation
 - 2.2 Feed backing
 - 2.3 Scheduling of classes
 - 2.4 Approaches, Techniques, and Methods of Teaching
 - 2.5 Assignment of Student Learning Activities
 - 2.6 Learning Materials Preparation and Delivery
 - 2.7 Test Construction
3. What is the overall degree of impact of employing Quality Assurance Systems on the delivery of Marinduque State College's instructional services?
4. Is there a significant difference in the assessment of the impact of the following respondent groups?
 - 4.1 Faculty-Administrators and Students-Alumni
 - 4.2 Faculty-Administrators and Parents/Guardians-Community
 - 4.3 Students-Alumni and Parents/Guardians-Community
5. What Quality Assurance Sustainability Model for Higher Education may be introduced by the researcher to sustain the positive impact of Quality Assurance Systems?



Methodology

The study followed the quantitative research design pursued using the traditional Waterfall Methodology (Royce, 1970) as applied to research comprised of three major phases, namely, Fact-Finding and Discovery; Retrieval and Tabulation of Data; and Analysis, Interpretation, and Presentation of Data.

The research instruments utilized in the study were researcher-made survey questionnaires based on the Seven Principles of QMS of ISO and the 10 Areas of Accreditation of AACUP.

Mapping the seven ISO principles to the 10 AACUP accreditation areas across the seven identified instructional services were initially undertaken that served as the bases for crafting the various versions of the content and reliability validated survey questionnaires for each stakeholder type. Electronic versions using Google Forms were prepared to hasten the distribution and retrieval process. Hardcopy versions were also prepared to address respondents who did not have electronic connectivity.

The population sample came mainly from MSC's main campus in Boac and the three branches. Six categories of stakeholders totaling 1,588 (faculty, administrators, students, alumni, parents/guardians, and community) served as respondents. Likert scales were employed to ensure the respondents' objective evaluation of the indicators being measured. In measuring the degree of impact, such outlooks will fall within varying degrees as shown in Grid 1.

Grid 1

Likert Scale to Assess the Degree of Impact of Quality Assurance Systems

Scale	Adjectival Rating	Descriptor
5	With Very High Impact	The objective of the process and procedures is 100% attained.
4	With High Impact	The objective of the process and procedures is 80% attained.
3	With Moderate Impact	The objective of the process and procedures is 60% attained.
2	With Low Impact	The objective of the process and procedures is 40% attained.
1	With Very Low Impact	The objective of the process and procedures is not attained.



To interpret the composite scores based on the ratings given by the respondents, Grid 2 was used.

Grid 2

Likert Scale to Interpret the Composite Scores of Stakeholders' Responses

Scale	Degree of Impact Adjectival Rating
4.20 - 5.00	With Very High Impact
3.40 - 4.19	With High Impact
2.60 - 3.39	With Moderate Impact
1.80 - 2.59	With Low Impact
1.00 - 1.79	With Very Low Impact

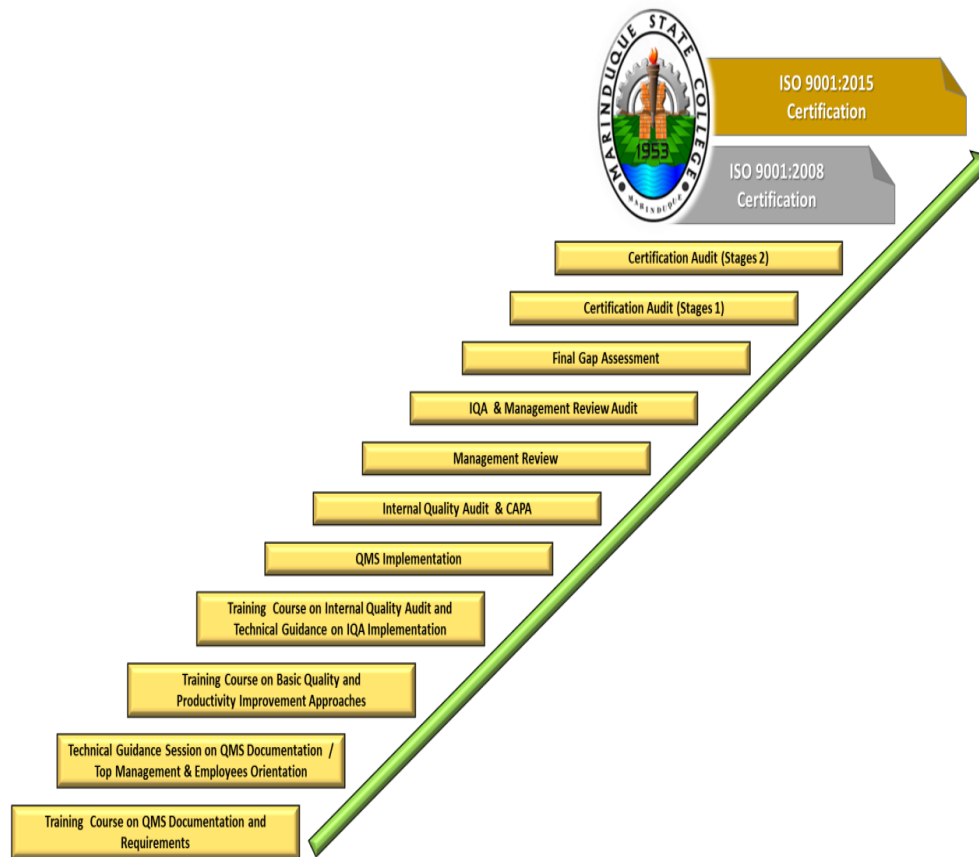
Moreover, statistical tools were appropriately applied like computation of the mean, ranking, and t-statistics to address the stated problems.

Results and Discussion

The data gathered from the respondents are herein presented in figures and tables supported by discussions.

Figure 1

Marinduque State College's Quest Towards ISO 9001:2015 Certification



MSC became a trendsetter in the MIMAROPA Region for being the first SUC to be ISO certified in 2016. It has become a branding for MSC as an institution establishing and practicing standards. It also promoted professional culture development among employees. Such branding and culture provide for stakeholders' assurance on the quality level that the institution provides.

Keller (2019) stated that "ISO certification provides a global evaluation standard that students can look to with confidence." and "one method to ensure a college, university or business school is providing a credible and quality degree program is to become certified by an independent professional accreditation agency." This was affirmed by the statement of Roller et al. (2003) that an independent international third-party service provider is like a "stamp of approval" signifying quality education programs, teaching excellence, and documented program/learning outcomes.

As of June 2021, of the 33 academic programs of MSC, six are Level III Re-accredited, 17 are Level II Re-accredited, and five are Level I Accredited while one is a candidate and four are for preliminary survey. Details are shown in Table 1.

Table 1

Marinduque State College AACCUP Program Accreditation Status

Program	Accreditation Status
Doctor of Education (Curriculum Development and Management)	Level II Re-Accredited
Master of Art in Education (Educational Management)	Level II Re-Accredited
Master in Public Administration (Organization Studies, Local Gov't. & Regional Admin.)	Level II Re-Accredited
Bachelor of Science in Civil Engineering	Level II Re-Accredited *
Bachelor of Science in Electrical Engineering	Level II Re-Accredited *
Bachelor of Science in Electronics and Communication Engineering	Level II Re-Accredited
Bachelor of Science in Mechanical Engineering	Level I Accredited
Bachelor of Science in Computer Engineering	Level II Re-Accredited
Bachelor of Secondary Education	Level III Re-Accredited **
Bachelor of Elementary Education (Pre-Elementary and General Education)	Level III Re-Accredited
Bachelor of Culture and Arts Education	For Preliminary Survey
Bachelor of Technology and Livelihood Education	For Preliminary Survey
Bachelor of Science in Nursing	Level II Re-Accredited
Bachelor of Science in Environmental Science	Candidate
Bachelor of Science in Entrepreneurship (Enterprise Management)	Level II Re-Accredited
Bachelor of Science in Entrepreneurship (Agribusiness)	Level II Re-Accredited
Bachelor of Science in Tourism Management	Level II Re-Accredited
Bachelor of Science in Accounting Information Systems	Level I Accredited
Bachelor of Science in Business Administration	For Preliminary Survey
Bachelor of Science in Accountancy	For Preliminary Survey
Bachelor of Arts Major in English	Level II Re-Accredited ***
Bachelor of Arts in Communication	Level II Re-Accredited ***
Bachelor of Science in Social Work	Level I Accredited
Bachelor of Public Administration	Level I Accredited
Bachelor of Science in Law Enforcement Administration	Level II Re-Accredited
Bachelor of Arts Major in Political Science	Level II Re-Accredited
Bachelor of Science in Information Technology	Level III Re-Accredited
Bachelor of Science in Information Systems (Boac)	Level III Re-Accredited
Bachelor of Science in Information Systems (Santa Cruz)	Level II Re-Accredited
Bachelor of Science in Industrial Technology (Automotive, Mechanical, Foods, Electrical, Drafting, Refrigeration and Air-conditioning, and Welding and Fabrication)	Level III Re-Accredited
Bachelor of Science in Fisheries	Level II Re-Accredited
Bachelor of Science in Agriculture	Level I Accredited
Bachelor of Agricultural Technology	Level III Re-Accredited

*Assessment ongoing in Phase II of Evaluation in the 3rd Survey Visit. Must comply with mandatory recommendations.

**Assessment ongoing in Phase I of Evaluation in the 4th Survey Visit. Revisit All Areas.

***Passed Phase 1 of two (2) Phases of Evaluation in the 3rd Survey Visit. Conduct Phase 2.

The succeeding tables under Table 2 comprising Tables 2A to 2G summarize the mean computations for each indicator across each respondent category under each instructional service.

Table 2A

Degree of Impact of Quality Assurance Systems on Syllabus Preparation as Observed by Respondents

INSTRUCTIONAL SERVICE	Faculty		Administartors		Students		Alumni		Parents/ Guardians		Community		QAS Mean	Rank
	149		43		585		400		371		40			
SYLLABUS PREPARATION	Mean	Adjectival Rating	Mean	Adjectival Rating	Mean	Adjectival Rating	Mean	Adjectival Rating	Mean	Adjectival Rating	Mean	Adjectival Rating		
As MSC adheres to Quality Assurance Systems, the College performs the following: <i>Customer Focus</i> employs participation of its faculty, students, alumni, parents, and community. ensures student welfare, development, and institutional student programs and services.														
	4.05	With High Impact	4.07	With High Impact	4.14	With High Impact	4.28	With Very High Impact	4.02	With High Impact	4.18	With High Impact	4.12	8
	4.20	With Very High Impact	4.23	With Very High Impact	4.24	With Very High Impact	4.35	With Very High Impact	-	-	-	-	4.26	4
<i>Leadership</i> realizes the College Vision, Mission, School Goals, and Program Objectives in the programs that it offers.	4.28	With Very High Impact	4.30	With Very High Impact	4.42	With Very High Impact	4.40	With Very High Impact	-	-	-	-	4.35	2
<i>Engagement of People</i> maintains a pool of faculty members tasked to collaboratively prepare the syllabi.	4.11	With High Impact	4.33	With Very High Impact	4.22	With Very High Impact	4.27	With Very High Impact	4.04	With High Impact	4.35	With Very High Impact	4.22	5
designates the Deans and Department Chair/s who possess the required educational background, and work experience. (e.g. Ph.D., Ed.D., MAEd, MIS, MBA)	4.36	With Very High Impact	4.49	With Very High Impact	4.41	With Very High Impact	4.43	With Very High Impact	4.12	With High Impact	4.53	With Very High Impact	4.39	1
<i>Process Approach</i> implements an institutional process for syllabus preparation.	4.21	With Very High Impact	4.40	With Very High Impact	4.26	With Very High Impact	4.31	With Very High Impact	-	-	4.35	With Very High Impact	4.31	3
<i>Improvement</i> employs a Continuous Improvement Program (CIP) for its resources.	4.09	With High Impact	4.16	With High Impact	4.25	With Very High Impact	4.32	With Very High Impact	-	-	4.25	With Very High Impact	4.21	6
<i>Evidence-based Decision Making</i> utilizes calibrated assessment tool/s as reference in preparing revising and updating syllabi.	4.06	With High Impact	4.21	With Very High Impact	4.20	With Very High Impact	4.24	With Very High Impact	-	-	4.10	With High Impact	4.16	7
<i>Relationship Management</i> sustains collaboration with stakeholders in the preparation of the syllabi.	3.77	With High Impact	3.84	With High Impact	4.65	With Very High Impact	4.22	With Very High Impact	-	-	4.08	With High Impact	4.11	9
MEAN BY RESPONDENT CATEGORY	4.13	With High Impact	4.23	With Very High Impact	4.31	With Very High Impact	4.31	With Very High Impact	4.06	With High Impact	4.26	With Very High Impact		
MEAN BY RESPONDENT GROUP	4.18		With High Impact		4.31		With Very High Impact		4.16		With High Impact			
Note: Those marked with "-" signifies that such indicator is not the direct concern of the particular respondent														

Note: Those marked with "-" signify that such indicator is not the direct concern of the particular respondent.



With a very slight difference of 0.02 in the group mean where the Faculty-Administrator and Parents/Guardians-Community groups rated syllabus preparation with a mean of 4.18 and 4.16, respectively, corresponding to “With High Impact”, simply implies that the stakeholders agree that MSC achieves the objective of the processes and procedures related to Syllabus Preparation at an attainment level of 80% or more and that quality assurance systems do have an impact to syllabus preparation.

Kapp (n.d.) said that the syllabi prepared by all faculties are expected to serve three things such as organizing their class as it forces one to sit down and ponder on the way a course shall be delivered using available resources, assessment of students’ progress, and as a medium to convey one’s philosophy among students.

Table 2B

Degree of Impact of Quality Assurance Systems on Feed Backing as Observed by Respondents

INSTRUCTIONAL SERVICES	Faculty		Administrators		Students		Alumni		Parents/ Guardians		Community		QAS Mean	Rank
	149		43		585		400		371		40			
FEED BACKING	Mean	Adjectival Rating	Mean	Adjectival Rating	Mean	Adjectival Rating	Mean	Adjectival Rating	Mean	Adjectival Rating	Mean	Adjectival Rating		
As MSC adheres to Quality Assurance Systems, the College performs the following:														
Customer Focus provides for a mechanism to address students issues and grievances	3.97	With High Impact	4.21	With Very High Impact	4.12	With High Impact	4.15	With High Impact	4.06	With High Impact	-	-	4.10	4
Leadership enjoins stakeholders to provide feedback in its services.	4.06	With High Impact	4.19	With High Impact	4.11	With High Impact	4.15	With High Impact	3.91	With High Impact	4.05	With High Impact	4.08	5
Engagement of People collaboratively implements feedback mechanisms.	3.93	With High Impact	3.98	With High Impact	4.11	With High Impact	4.12	With High Impact	4.02	With High Impact	4.03	With High Impact	4.03	7
Process Approach ensures that a system of student evaluation and grading is defined, understood, and disseminated to all stakeholders.	4.07	With High Impact	4.05	With High Impact	4.24	With Very High Impact	4.26	With Very High Impact	4.07	With High Impact	4.00	With High Impact	4.14	1
Improvement encourages stakeholders' feedback towards the promotion of continuous improvement.	4.01	With High Impact	4.19	With High Impact	3.94	With High Impact	4.23	With Very High Impact	4.06	With High Impact	3.98	With High Impact	4.07	6
Evidence-based Decision Making utilizes feedback as reference in measuring the effectiveness of academic services.	4.03	With High Impact	4.07	With High Impact	4.23	With Very High Impact	4.26	With Very High Impact	-	-	3.95	With High Impact	4.11	3
Relationship Management involves the participation of stakeholders (faculty, personnel, students and other entities) in the formulation, review and/or revision of the College Vision, Mission, School Goals, and Program Objectives.	3.97	With High Impact	4.02	With High Impact	4.34	With Very High Impact	4.27	With Very High Impact	4.07	With High Impact	4.05	With High Impact	4.12	2
MEAN BY RESPONDENT CATEGORY	4.01	With High Impact	4.10	With High Impact	4.16	With High Impact	4.20	With Very High Impact	4.03	With High Impact	4.01	With High Impact		
MEAN BY RESPONDENT GROUP	4.05			With High Impact	4.18			With High Impact	4.02			With High Impact		
Note: Those marked with "-" signify that such indicator is not the direct concern of the respondent.														

Note: Those marked with "-" signify that such indicator is not the direct concern of the respondent.

Considering the seven parameters for this instructional service, the one with the greatest impact across respondents, as it is ranked first, is the one under the Process Approach. This particular parameter had a QAS mean of 4.14 while the lowest was the parameter under Engagement of People with a 4.03 rating, both with a "With High Impact" adjectival rating. It is clearly noticeable that given the "With High Impact" rating across all parameters under this instructional service, it may be presumed that the objective of the process and procedures is 80% attained regarding feedback endeavors which also implies that there is still around $\pm 20\%$ elbow room for improvement. Given this scenario, various technologies available nowadays may be used to further improve the feed-backing mechanism of the College. Hattie and Timperley (2007) highlighted the importance of feedback since "It is conceptualized as information provided by an agent (e.g., teacher, peer, book, parent, and experience) regarding aspects of one's performance or understanding.

Table 2C

Degree of Impact of Quality Assurance Systems on Scheduling of Classes as Observed by Respondents

INSTRUCTIONAL SERVICE	Faculty		Administrators		Students		Alumni		Parents/ Guardians		Community		QMS Mean	Rank
	149		43		585		400		371		40			
SCHEDULING OF CLASSES	Mean	Adjectival Rating	Mean	Adjectival Rating	Mean	Adjectival Rating	Mean	Adjectival Rating	Mean	Adjectival Rating	Mean	Adjectival Rating		
As MSC adheres to Quality Assurance Systems, the College performs the following: Customer Focus considers that linking of its objectives to the needs of the student to facilitate the management of learning in terms of student's attendance, schedule of classes, discipline and maintenance of cleanliness and orderliness. ensures that students are informed accordingly of their schedule of classes.														
	4.18	With High Impact	4.19	With High Impact	4.29	With Very High Impact	4.31	With Very High Impact	-	-	-	-	4.24	5
	4.35	With Very High Impact	4.49	With Very High Impact	4.29	With Very High Impact	4.40	With Very High Impact	-	-	-	-	4.38	1
Leadership considers the educational qualifications and experience of its faculty and personnel to ensure delivery of quality education. adheres to the required number of faculty who possess graduate degrees appropriate and relevant to the program or any allied fields.	4.18	With High Impact	4.40	With Very High Impact	4.32	With Very High Impact	4.37	With Very High Impact	4.19	With High Impact	-	-	4.29	3
	4.11	With High Impact	4.23	With Very High Impact	4.31	With Very High Impact	4.31	With Very High Impact	-	-	-	-	4.24	5
Engagement of People facilitates open discussion and sharing of knowledge and experiences among stakeholders.	3.97	With High Impact	4.05	With High Impact	4.26	With Very High Impact	4.30	With Very High Impact	-	-	-	-	4.15	7
Process Approach follows an institutional procedure in scheduling classes.	4.15	With High Impact	4.35	With Very High Impact	4.22	With Very High Impact	4.34	With Very High Impact	-	-	4.33	With Very High Impact	4.28	4
Improvement considers flexibility of schedule should changes arise.	4.26	With Very High Impact	4.37	With Very High Impact	4.19	With High Impact	4.30	With Very High Impact	-	-	-	-	4.28	4
Evidence-based Decision Making considers the curriculum and student needs on subject offering.	4.23	With Very High Impact	4.47	With Very High Impact	4.22	With Very High Impact	4.31	With Very High Impact	-	-	4.30	With Very High Impact	4.31	2
Relationship Management considers the ratio between faculty and students in order to ease its management.	3.95	With High Impact	4.23	With Very High Impact	4.21	With Very High Impact	4.26	With Very High Impact	4.22	With Very High Impact	-	-	4.17	6
MEAN BY RESPONDENT CATEGORY	4.15	With High Impact	4.32	With Very High Impact	4.25	With Very High Impact	4.32	With Very High Impact	4.20	With Very High Impact	4.31	With Very High Impact		
MEAN BY RESPONDENT GROUP	4.24			With Very High Impact	4.29			With Very High Impact	4.26			With Very High Impact		
Note: Those marked with "-" signifies that such indicator is not the direct concern of the respondent.														

Note: Those marked with "-" signify that such indicator is not the direct concern of the respondent.

Ranking each parameter showed that the indicator under Customer Focus, particularly, the one that ensures that students are informed accordingly of their schedule

of classes, was ranked first with a QAS mean of 4.38 while that under Engagement of People got the lowest with 4.15. With most of the parameters considered falling within the lower limit range (4.20 to 4.60) of the adjectival rating “With Very High Impact”, it may be deduced that though MSC hits the objective of the process and procedures as regards Scheduling of Classes, amendments to further improve the said instructional service may still be introduced.

Table 2D

Degree of Impact of Quality Assurance Systems on Approaches, Techniques and Methods of Teaching as Observed by Respondents

INSTRUCTIONAL SERVICE	Faculty		Administrators		Students		Alumni		Parents/ Guardians		Community		QMS Mean	Rank
	149		43		585		400		371		40			
APPROACHES, TECHNIQUES AND METHODS OF TEACHING	Mean	Adjectival Rating	Mean	Adjectival Rating	Mean	Adjectival Rating	Mean	Adjectival Rating	Mean	Adjectival Rating	Mean	Adjectival Rating		
As MSC adheres to Quality Assurance Systems, the College performs the following:														
Customer Focus aligns its teaching strategies, approaches and methods to the expected program outcomes and expected graduate attributes.	4.28	With Very High Impact	4.40	With Very High Impact	4.21	With Very High Impact	4.36	With Very High Impact	-	-	-	-	4.31	4
Leadership implements an institutional In-Service Training (INSET) to improve teaching skills of faculty.	4.49	With Very High Impact	4.53	With Very High Impact	4.22	With Very High Impact	4.29	With Very High Impact	-	-	4.33	With Very High Impact	4.37	2
Engagement of People invites resource speakers to discuss expert level topics.	4.46	With Very High Impact	4.56	With Very High Impact	4.15	With High Impact	4.35	With Very High Impact	-	-	-	-	4.38	1
Process Approach establishes authority, responsibility and accountability in managing academic-related processes.	4.36	With Very High Impact	4.35	With Very High Impact	4.24	With Very High Impact	4.38	With Very High Impact	-	-	-	-	4.33	3
Improvement measures the effectiveness of faculty trainings or teaching strategies in redesigning similar interactions.	4.21	With Very High Impact	4.26	With Very High Impact	4.21	With Very High Impact	4.33	With Very High Impact	4.12	With High Impact	-	-	4.23	7
Evidence-based utilizes faculty teaching effectiveness and data from Supervisory Development Program as reference in identifying teaching strategies.	4.15	With High Impact	4.26	With Very High Impact	4.24	With Very High Impact	4.30	With Very High Impact	-	-	-	-	4.24	6
Relationship institutionalizes its development endeavors among its manpower resources to ensure delivery of quality education.	4.21	With Very High Impact	4.23	With Very High Impact	4.25	With Very High Impact	4.31	With Very High Impact	-	-	-	-	4.25	5
MEAN BY RESPONDENT CATEGORY	4.31	With Very High Impact	4.37	With Very High Impact	4.22	With Very High Impact	4.33	With Very High Impact	4.12	With High Impact	4.33	With Very High Impact		
MEAN BY RESPONDENT GROUP	4.34		With Very High Impact		4.28		With Very High Impact		4.22		With Very High Impact			
Note: Those marked with "-" signifies that such indicator is not the direct concern of the respondent														

Note: Those marked with "-" signify that such indicator is not the direct concern of the respondent.



Ranking all seven parameters gave the indicator Engagement of People the top rank with a QAS mean of 4.38 but very closely followed by Leadership with only a difference of 0.01. The indicator Improvement got the lowest QAS mean of 4.23 which implies that there is lack of evaluation on the level of improvement among faculty after being sent to training that would also spell out their effectiveness in delivering the teaching and learning processes.

Table 2E

Degree of Impact of Quality Assurance Systems on Assignment of Student Learning Activities as Observed by Respondents

INSTRUCTIONAL SERVICE	Faculty		Administrators		Students		Alumni		Parents/ Guardians		Community		QMS Mean	Rank
	149		43		585		400		371		40			
STUDENT LEARNING ACTIVITIES	Mean	Adjectival Rating	Mean	Adjectival Rating	Mean	Adjectival Rating	Mean	Adjectival Rating	Mean	Adjectival Rating	Mean	Adjectival Rating		
As MSC adheres to Quality Assurance Systems, the College performs the following: <i>Customer Focus</i> provides for teaching approaches that stimulate the development of the students' higher order thinking skills (HOTS) such as critical thinking, analytical thinking, creative thinking and problem solving.	4.30	With Very High Impact	4.26	With Very High Impact	4.25	With Very High Impact	4.33	With Very High Impact	-	-	-	-	4.29	4
<i>Leadership</i> faculty demonstrates professional competence.	4.34	With Very High Impact	4.33	With Very High Impact	4.25	With Very High Impact	4.33	With Very High Impact	-	-	-	-	4.31	3
<i>Engagement of People</i> faculty pursues graduate degrees related to the program and/or allied fields from reputable institutions.														
	4.41	With Very High Impact	4.42	With Very High Impact	4.30	With Very High Impact	4.40	With Very High Impact	-	-	-	-	4.38	2
<i>Process Approach</i> uses instructional strategies to provide for student individual needs and the development of multiple intelligences.														
	4.26	With Very High Impact	4.37	With Very High Impact	3.24	With Moderate Impact	4.34	With Very High Impact	-	-	4.18	With High Impact	4.08	6
<i>Improvement</i> provides sufficient, well ventilated and lighted classrooms and laboratory rooms.														
	3.82	With High Impact	3.95	With High Impact	4.10	With High Impact	4.10	With High Impact	-	-	-	-	3.99	7
<i>Evidence-based Decision Making</i> utilizes data from client feedbacks on student services in designing student learning activities compliant to standards and in accordance with learning plan or syllabus.														
	3.98	With High Impact	3.98	With High Impact	4.21	With Very High Impact	4.22	With Very High Impact	-	-	-	-	4.10	5
<i>Relationship Management</i> faculty and officials are approachable, accessible, and acts promptly on students' concerns.														
	4.80	With Very High Impact	4.26	With Very High Impact	4.21	With Very High Impact	4.30	With Very High Impact	4.12	With High Impact	4.15	With High Impact	4.39	1
MEAN BY RESPONDENT CATEGORY	4.28	With Very High Impact	4.22	With Very High Impact	4.08	With High Impact	4.29	With Very High Impact	4.12	With High Impact	4.16	With High Impact		
MEAN BY RESPONDENT GROUP	4.25		With Very High Impact		4.18		With High Impact		4.14		With High Impact			
Note: Those marked with "-" signifies that such indicator is not the direct concern of the respondent.														

Note: Those marked with "-" signify that such indicator is not the direct concern of the respondent.

The members of the Faculty-Administrators group are the facilitators of this instructional service. Thus, it is expected that they would rate this aspect highest. The Student respondents rated it the lowest which was also expected as most of them often would not want to have assignments and learning activities given to them. Homework benefited and supported students' learning although it had some psychological bearing on their learning and affected free time management. Inappropriate times of giving homework noticeably impact the emotional conditions and attitudes of students (Songsirisak, 2018).

Table 2F

Degree of Impact of Quality Assurance Systems on Learning Materials Preparation and Delivery as Observed by Respondents

INSTRUCTIONAL SERVICE	Faculty		Administrators		Students		Alumni		Parents/ Guardians		Community		QMS Mean	Rank
	149		43		585		400		371		40			
LEARNING MATERIALS PREPARATION AND DELIVERY	Mean	Adjectival Rating	Mean	Adjectival Rating	Mean	Adjectival Rating	Mean	Adjectival Rating	Mean	Adjectival Rating	Mean	Adjectival Rating		
As MSC adheres to Quality Assurance Systems, the College performs the following:														
Customer Focus														
ensures that the curriculum provides for the development of needed professional competencies based on the stipulations of the CHED Memorandum Order (CMO).	4.38	With Very High Impact	4.33	With Very High Impact	4.31	With Very High Impact	4.38	With Very High Impact	-	-	4.40	With Very High Impact	4.36	1
Leadership														
ensures that learning materials are prepared and delivered towards developing the students' critical thinking, analytical thinking, creative and problem solving skills.	4.22	With Very High Impact	4.23	With Very High Impact	4.26	With Very High Impact	4.30	With Very High Impact	-	-	4.23	With Very High Impact	4.25	3
Engagement of People														
highlights collaboration in designing learning materials and delivery.	4.09	With High Impact	4.14	With High Impact	4.22	With Very High Impact	4.24	With Very High Impact	-	-	4.08	With High Impact	4.15	4
Process Approach														
provides for standard formats in the preparation and delivery of learning materials.	4.10	With High Impact	4.05	With High Impact	4.22	With Very High Impact	4.24	With Very High Impact	-	-	-	-	4.15	4
Improvement														
pursues curriculum review, assessment, updating and approval.	4.20	With Very High Impact	4.35	With Very High Impact	4.23	With Very High Impact	4.31	With Very High Impact	-	-	4.15	With High Impact	4.25	3
Evidence-based Decision Making														
ensures that the program of studies has a system of evaluating students' performance.	4.21	With Very High Impact	4.28	With Very High Impact	4.26	With Very High Impact	4.32	With Very High Impact	4.21	With Very High Impact	-	-	4.26	2
Relationship Management														
establishes consortia and linkages with other learning institutions for academic exchange of instructional materials and benchmarking.	4.03	With High Impact	3.81	With High Impact	4.18	With High Impact	4.24	With Very High Impact	-	-	4.15	With High Impact	4.08	5
MEAN BY RESPONDENT CATEGORY	4.18	With High Impact	4.17	With High Impact	4.24	With Very High Impact	4.29	With Very High Impact	4.21	With Very High Impact	4.20	With Very High Impact		
MEAN BY RESPONDENT GROUP	4.18		With High Impact		4.26		With Very High Impact		4.20		With Very High Impact			
Note: Those marked with "-" signify that such indicator is not the direct concern of the respondent														

Note: Those marked with "-" signify that such indicator is not the direct concern of the respondent.

The contrasting views of the Faculty-Administrators and Students-Alumni groups are obvious as each of these respondent groups may look at Learning Materials Preparation and Delivery with varying perspectives. Note that the Faculty-Administrators are the implementers and the Students-Alumni are the direct beneficiaries, while the Parents/Guardians-Community are the indirect beneficiaries of this instructional service.

This is an indication that instructional materials have been observed as a powerful strategy to bring about effective teaching and learning. The importance of quality and

adequate instructional materials in teaching and learning can occur through their effective utilization during classes Tety (2016).

Table 2G

Degree of Impact of Quality Assurance Systems on Test Construction as Observed by Respondents

INSTRUCTIONAL SERVICE	Faculty		Administrators		Students		Alumni		Parents/ Guardians		Community		QMS Mean	Rank
	149		43		585		400		371		40			
TEST CONSTRUCTION	Mean	Adjectival Rating	Mean	Adjectival Rating	Mean	Adjectival Rating	Mean	Adjectival Rating	Mean	Adjectival Rating	Mean	Adjectival Rating		
As MSC adheres to Quality Assurance Systems, the College performs the following:														
Customer Focus														
ensures that examinations are comprehensive enough to test the different levels of cognitive skills and knowledge of content of students.	4.21	With Very High Impact	4.33	With Very High Impact	4.28	With Very High Impact	4.37	With Very High Impact	-	-	-	-	4.30	4
Leadership														
ensures that subjects are handled by specialists in the discipline/program.	4.22	With Very High Impact	4.47	With Very High Impact	4.27	With Very High Impact	4.33	With Very High Impact	-	-	4.29	With Very High Impact	4.32	2
Engagement of People														
ensures that tests are reviewed and validated.	4.12	With High Impact	4.30	With Very High Impact	4.26	With Very High Impact	4.33	With Very High Impact	-	-	-	-	4.25	5
Process Approach														
ensures that it has a system of evaluating students' performance through formative and summative tests, project and term papers, and practicum and performance tests which are approved by the Program Chair and Dean.	4.32	With Very High Impact	4.47	With Very High Impact	4.30	With Very High Impact	4.34	With Very High Impact	-	-	-	-	4.36	1
Improvement														
ensures that evaluation tools/instruments are reviewed and revised periodically.	4.11	With High Impact	4.14	With High Impact	4.26	With Very High Impact	4.29	With Very High Impact	-	-	-	-	4.20	7
Evidence-based Decision Making														
ensures that major examinations are based on well-designed Table of Specifications (TOS).	4.29	With Very High Impact	4.35	With Very High Impact	4.26	With Very High Impact	4.34	With Very High Impact	-	-	-	-	4.31	3
Relationship Management														
ensures that course and test requirements are returned to students after results are checked, recorded and analysed.	4.17	With High Impact	4.23	With Very High Impact	4.22	With Very High Impact	4.33	With Very High Impact	4.11	With High Impact	-	-	4.21	6
MEAN BY RESPONDENT CATEGORY	4.21	With Very High Impact	4.33	With Very High Impact	4.26	With Very High Impact	4.33	With Very High Impact	4.11	With High Impact	4.29	With Very High Impact		
MEAN BY RESPONDENT GROUP	4.27		With Very High Impact		4.30		With Very High Impact		4.20		With Very High Impact			
Note: Those marked with "-" signify that such indicator is not the direct concern of the respondent.														

Note: Those marked with "-" signify that such indicator is not the direct concern of the respondent.

Looking at a perspective in terms of respondent groups, though all three had similar adjectival ratings of "With Very High Impact", the Students-Alumni group yielded the

highest mean of 4.30 closely followed by the Faculty-Administrators with only 0.03 less than the latter.

This is an indication that MSC was able to maximize the attainment of the objectives of the processes and procedures in Test Construction. Such may also imply that MSC adheres to quality best practices following standards of Test Construction which are evidenced by the preparation of the Table of Specifications (TOS) and major examination questionnaires. The Parents/Guardians-Community group had the lowest mean rating of 4.20 as expected as they are the least concerned with this instructional service.

Summarizing the QAS means across instructional services and indicators resulted in Table 3.

Table 3

Summary of Degree of Impact of Quality Assurance Systems on Marinduque State College's Selected Instructional Services

INSTRUCTIONAL SERVICES	Syllabus Preparation		Feed Backing		Scheduling of Classes		Approaches, Techniques and Methods of Teaching		Assignment of Student Learning Activities		Learning Materials Preparation and Delivery		Test Construction		Overall QMS Mean Per QMS Indicator	
INDICATORS	QAS Mean	Adjectival Rating	QAS Mean	Adjectival Rating	QAS Mean	Adjectival Rating	QAS Mean	Adjectival Rating	QAS Mean	Adjectival Rating	QAS Mean	Adjectival Rating	QAS Mean	Adjectival Rating		
Customer Focus	4.19	With High Impact	4.10	With High Impact	4.31	With Very High Impact	4.31	With Very High Impact	4.29	With Very High Impact	4.36	With Very High Impact	4.30	With Very High Impact	4.27	With Very High Impact
Leadership	4.35	With Very High Impact	4.08	With High Impact	4.27	With Very High Impact	4.37	With Very High Impact	4.31	With Very High Impact	4.25	With Very High Impact	4.32	With Very High Impact	4.28	With Very High Impact
Engagement of People	4.30	With Very High Impact	4.03	With High Impact	4.15	With High Impact	4.38	With Very High Impact	4.38	With Very High Impact	4.15	With High Impact	4.25	With Very High Impact	4.23	With Very High Impact
Process Approach	4.31	With Very High Impact	4.14	With High Impact	4.28	With Very High Impact	4.33	With Very High Impact	4.08	With High Impact	4.15	With High Impact	4.36	With Very High Impact	4.24	With Very High Impact
Improvement	4.21	With Very High Impact	4.07	With High Impact	4.28	With Very High Impact	4.23	With Very High Impact	3.99	With High Impact	4.25	With Very High Impact	4.20	With Very High Impact	4.18	With High Impact
Evidenced-based Decision Making	4.16	With High Impact	4.11	With High Impact	4.31	With Very High Impact	4.24	With Very High Impact	4.10	With High Impact	4.26	With Very High Impact	4.31	With Very High Impact	4.21	With Very High Impact
Relationship Management	4.11	With High Impact	4.12	With High Impact	4.17	With High Impact	4.25	With Very High Impact	4.39	With Very High Impact	4.08	With High Impact	4.21	With Very High Impact	4.19	With High Impact
Overall QMS Mean Per Instructional Service	4.23	With Very High Impact	4.09	With High Impact	4.25	With Very High Impact	4.30	With Very High Impact	4.22	With Very High Impact	4.21	With Very High Impact	4.28	With Very High Impact	4.23	With Very High Impact
GRAND MEAN																

Focusing on the indicators across all instructional services, Leadership was the highest-rated indicator with an overall QAS mean of 4.28 interpreted as “With Very High Impact” which may be considered consistent with the highest-rated instructional service mentioned above as prior leaders of MSC have led the institution to achieve unprecedented feats in quality assurance as evidenced by its ISO 9001:2015 certification and AACUP accreditation levels.



Table 4 presents the T-values determining the significant differences in the responses of respondent groups.

Table 4

T-values Presenting the Significant Difference in the Responses of Respondent Groups

Academic Services	Syllabus Preparation	Feed Backing	Scheduling of Classes	Approaches, Techniques and Methods of Teaching	Assignment of Student Learning Activities	Learning Materials Preparation and Delivery	Test Construction
Respondents							
Faculty-Administrators and Students-Alumni	0.112661409	0.15962	0.427	0.62746	0.0537	0.074	0.0203
	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	Significant
Faculty-Administrators and Parents-Community	0.015	0.088748	0.015086	0.102646	0.0981836	0.018934	0.86009471
	Significant	Not Significant	Significant	Not Significant	Not Significant	Significant	Not Significant
Students-Alumni and Parents/Guardians-Community	0.12019	0.11044	0.02357	0.04686	0.67511	0.05376	0.08616
	Not Significant	Not Significant	Significant	Significant	Not Significant	Not Significant	Not Significant

The Faculty-Administrators and Students-Alumni all yielded “Not Significant” values. However, as to Test Construction, a “Significant” difference was established attributable to the fact that the Faculty-Administrators group is the expert when it comes to this aspect.

Between Faculty-Administrators and Parents/Guardians-Community groups, three “Significant” items were identified, namely, syllabus preparation, scheduling of classes, and learning materials preparation and delivery. This is attributable to the fact that there is negligible involvement of the Parents/Guardians-Community group in these aspects. Also, the expertise among these instructional services lies under the turf of the Faculty-Administrators group and totally under their control. The rest of the instructional services resulted in “Not Significant” differences.

Comparing the Student-Alumni and Parents/Guardians-Community groups, both scheduling of classes and approaches, techniques, and methods of teaching came out with “Significant” differences ascribable to the circumstance that these two instructional services were first-hand experienced by the members of the Students-Alumni group while as with the Parents/Guardians-Community group, such is indirectly made known to them.

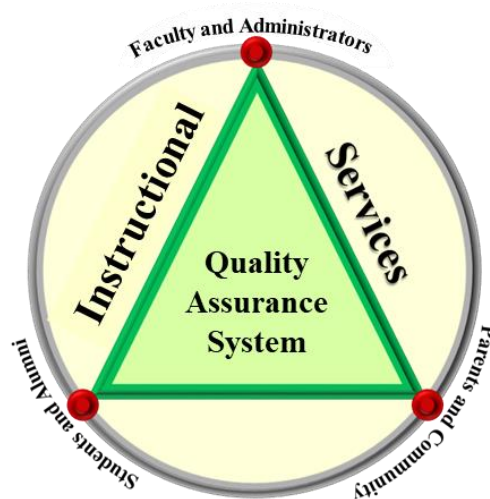
It is noticeable that both feed backing and assignment of student learning activities got a unanimous take among respondent groups. “Not Significant” differences were recorded across all respondent groups thereby implying that they have the same standpoint about these two instructional services.

With the above-presented results, the researcher crafted a model shown in Figure 2 dubbed the *Rebistual Quality Assurance Sustainability Model for Higher Education*

showing how stakeholders and the institution interact to have a sustained promotion and feedback mechanism which may serve as a check and balance instrument for the institution.

Figure 2

Rebistual Quality Assurance Sustainability Model for Higher Education



The concept behind the model is that, as the QAS is implemented by MSC, the closer the vertices of the triangle get and become tangent to the circle representing the instructional services that MSC offers, the higher the level of satisfaction of stakeholders is achieved. The center of interest to support the model, which is vital to MSC, is a well-established process of handling feedback. It also espouses the activities and action entities enumerated in Table 5.

Table 5

Summary of Activities and Action Entities in the Rebutual Quality Assurance Sustainability Model for Higher Education

Activities	Action Entities	Schedule
1. Crafting of institutional Continuous Improvement Program (CIP)	Top Management	4-5 months
2. Getting feedback through various mechanisms	Stakeholders	Daily
3. Regular consolidated feedback report submission	Instructional Services Personnel	Submission is every 1 st Friday of the following month
4. Regular evaluation of the submitted feedback reports	Office of the Quality Assurance, Accreditation, and Evaluation	Preparation is quarterly
5. Regular report presentation to top management	Office of the Quality Assurance, Accreditation, and Evaluation	Presentation every quarter during Management Committee meeting
6. Inclusion of feedback to the CIP	Top Management	Updating of CIP is on an annual basis
7. Implementation of the CIP	Top Management Instructional Services Personnel	Year-round

Conclusion

In light of the findings generated from the results of the study, it can be concluded that Quality Assurance Systems safeguard the image and credibility of the institution as it is driven to pursue stepping up from time to time with the end view of being in pace with the trends in developments which in turn brings a positive outlook among stakeholders as they are assured of service excellence.

Recommendations

Based on the findings of the study, the following are hereby recommended:

1. Continued adherence to the stipulated requirements of both ISO and AACUP is endorsed to have a sustained status ascent in both certification and accreditation in support of the positive mindset of stakeholders.



2. Intensifying stakeholders' orientation on instructional services offered by the College to level off their understanding of what quality is all about.
3. Improve the College's feedback mechanism by utilizing various means of communication that may include both traditional and highly-modernized approaches.
4. Institutionalize the Continuous Improvement Program espoused by TQM experts to uphold an incessant stride towards process management maturity.

References

- 9000Store (n.d.). *What is ISO 9001?*. Retrieved November 22, 2020 from <https://the9000store.com/what-are-iso-9000-standards/what-is-iso-9001/>.
- Advisera (2019). *Should universities implement ISO 9001?* Retrieved from <https://advisera.com/9001academy/blog/2015/04/21/should-universities-implement-iso-9001/>
- Ahmudi, P. and Handayani, N. (2018). *Effectiveness analysis of ISO 9001:2015 implementation at manufacturing industry* [Published manuscript]. Indonesia: Diponegoro University
- Alcon, H. (n.d.). *Orientation on ISO 9001:2015 quality management system*. Retrieved October 13, 2020 from https://www.doe.gov.ph/sites/default/files/pdf/pep/qms_orientation_presentation_may_3.pdf.
- Barone, A. (2020). *Investopedia: Quality management*. Retrieved November 20, 2020 from <https://www.investopedia.com/terms/q/quality-management.asp#:~:text=Quality%20management%20is%20the%20act,quality%20control%20and%20quality%20improvement>.
- Bilbao, P., Dayagbil, F., Corpuz, P. (2008). *Curriculum development*. Lorimar Publishing Inc. ISBN 10 9716856873.
- Bilbao, P., Dayagbil, F. and Corpuz, P. (2015). *Curriculum Development for Teachers*. Quezon City, Philippines: Lorimar Publishing, Inc.
- Biswas, P. (2019). *Seven principles of quality management*. Retrieved December 2, 2020 from <https://isoconsultantkuwait.com/2019/05/08/1572/>.
- Blakesley, J.F., Murray, K.S., Wolf, F.H., Murray, D. (1998). *Academic scheduling*. In: Burke, E., Carter, M. (eds) *Practice and Theory of Automated Timetabling II*. PATAT 1997. Lecture Notes in Computer Science, vol 1408. Springer, Berlin, Heidelberg. <https://doi.org/10.1007/BFb0055892>



- Bonner, T. A. (2012). *Comparison of the effects block and traditional schedules have on the number of students who are proficient on the biology end-of-course test in forty public high schools in the state of North Carolina* (Doctoral dissertation, Liberty University). Retrieved from <http://digitalcommons.liberty.edu/cgi/viewcontent.cgi?article=1701&context=doctoral>
- Borras, A. (2012). *The impact of ISO 9001:2008 quality management system implementation on organizational performance of the nuclear regulatory division of Philippine nuclear research institute*. Philippines: Ateneo School of Government
- Bulacan State University Communication Office (2017). *BulSu is now ISO certified*. Retrieved October 13, 2020 from <https://www.bulsu.edu.ph/news/2017/10/12/52/bulsu-is-now-iso-certified>.
- Business Management Portal. (n.d.). *W. Edwards Deming: Total quality management thinker*. Business and Management Portal. Retrieved June 9, 2021 from <https://www.bl.uk/people/w-edwards-deming#>
- Castell Y. (2016). *Strategies to implement ISO 9001 in a government organization in Jamaica*. United States: Walden University Scholar Works
- Center for Innovative Teaching and Learning (2021). *Test construction*. Retrieved June 10, 2021 from <https://citl.indiana.edu/teaching-resources/assessing-student-learning/test-construction/index.html>.
- Centro Escolar University (n.d.). *Centro Escolar University ISO 9001:2015 certified all campuses excluding school of medicine and senior high school*. Retrieved October 13, 2020 from <https://manila.ceu.edu.ph/iso-90012015-certified-all-campuses>.
- Childers, E. A. (2018). *Effects of class scheduling and student achievement on state testing* [Doctoral dissertation, Walden University]. Walden Dissertation and Doctoral Studies
- Civil Service Commission (2014). *Civil Service Commission quality policy*. Retrieved November 22, 2020 from <http://ro11.csc.gov.ph/2014-02-20-02-39-26/car/23-main-menu/72-iso-certification.html>.
- Conchada M., Tiongco M. (2015). *A review of the accreditation system for Philippine higher education institutions*. Philippine Institute for Development Studies.



- Davies, R. S., Howell, S. L., & Petrie, J. A. (2010). *A review of trends in distance education scholarship at research universities in North America*. International Review of Research in Open and Distance Learning, 11(3), 42-56.
- DeFranzo, S. (2021). *Feedback management: 5 reasons why feedback is important*. SnapSurveys. Retrieved from <https://www.snapsurveys.com/blog/5-reasons-feedback-important/>
- Deming, W. E. (2018). *Out of the crisis (Reissue)*. The MIT Press Reader. ISBN: 9780262535946.
- Diaz E. (2014). *Geneva business news: What is your definition of quality?* Retrieved November 20, 2020 from <https://www.gbnews.ch/what-is-your-definition-of-quality/>.
- Educational Systems Technological Institute (n.d.). *Educational Systems Technological Institute profile*. Retrieved November 23, 2020 from <https://portal.edukasyon.ph/schools/educational-systems-technological-institute>.
- FAYZ (n.d.). *Power of alumni in education system*. Retrieved June 22, 2021 from https://fayz.in/stories/s/1561/0/?ckt_id=ZGL1ZGVk&title=power_of_alumni_in_the_education_system.
- Fonseca, L., Domingues, J. (2016). *ISO 9001:2015 edition – management, quality and value*. International Journal for Quality Research, 11(1):149-158.pdf
- Gamboa, A. and Melão, N. (2010). *The impacts and success factors of ISO 9001 in education: Experiences from Portuguese vocational schools*. International Journal of Quality & Reliability Management, 29(4):384-401. https://www.researchgate.net/publication/235321368_The_impacts_and_success_factors_of_ISO_9001_in_education_Experiences_from_Portuguese_vocational_schools
- Gianan, E. (2019). *PUP retains ISO certification*. Retrieved October 13, 2020 from <https://www.pup.edu.ph/news/?go=MhH1tcmHmUQ%3D>.
- Great Schools Partnership (n.d.). *The glossary of education reform*. <https://www.edglossary.org/>
- Guillermo, R. (2018). *Teachers need to build strong relationships with school stakeholders*. Retrieved December 2, 2020 from <https://businessmirror.com.ph/2018/07/19/teachers-need-to-build-strong-relationships-with-school-stakeholders/>.



- Hardie-Williams, K. (2016). *Do homework assignments help or hinder student learning?* Retrieved from <https://www.goodtherapy.org>.
- Hargittai, E. (2015). *Inside higher ed: Making the most of the syllabus*. Retrieved from <https://www.insidehighered.com/advice/2015/08/17/essay-how-prepare-syllabus-college-course>.
- Hattie, J., Timperley H. (2007). The power of feedback. *Review of Educational Research*. Vol. 77 (1) 81-112.
- Hightower, A. M., Delgado, R. C., Lloyd, S. C., et. al. (2011). *Improving Students Learning By Supporting Quality Teaching: Key Issues, Effective Strategies*. Bethesda, MD: Editorial Projects in Education, Inc.
- Hoque, E. (2016). Teaching approaches, methods, and techniques. *International Conference on Language Education and Research*. DOI:10.13140/RG.2.2.21377.66400
- International Association for Impact Assessment (n.d.). *Assessment*. Retrieved from <https://www.iaia.org/>.
- Jalos, Jr., L. M. (2008). *Accreditation status of teacher education program of state schools in Region IV-A: Its relationship to school's performance and change readiness* [Unpublished doctoral dissertation]. Enverga University.
- Juneja, P. (n.d.). *Management study guide: Importance of quality management*. Retrieved November 20, 2020 from <https://www.managementstudyguide.com/importance-of-quality-management.htm>.
- Juran, J., Defeo, J. (2010). *Juran's quality handbook: The complete guide to performance excellence (6th Edition)*. McGraw-Hill Professional Publishing. ISBN-13:978-0071629737.
- Kapp, K. M. (n.d.). *Creating an amazing syllabus*. Retrieved June 9, 2021 from https://www.linkedin.com/learning/creating-an-amazing-syllabus?trk=course_title&upsellOrderOrigin=lynda_redirect_learning.
- Keller, G. (2019). *The importance of ISO certification for academic organizations*. Retrieved November 22, 2020 from <https://umonarch.ch/importance-iso-certification-academic-organizations/>.



- Kim, L. (2013). *A good test*. SingTeach Issue 40. Retrieved from <https://singteach.nie.edu.sg/2013/01/14/issue40-people01/>.
- Klaess, J. (2019). *3 definitions of quality in manufacturing and why they matter*. Retrieved November 20, 2020 from <https://tulip.co/quality/definitions-quality-quality40/#:~:text=The%20experts%20at%20ASQ%20thus,1>.
- Liberman, K. (2011). *The modern quality manual*. Retrieved December 2, 2021 <http://www.pinnacleeg.com/iso/iso-9001-myth-1-documentation-glut/>.
- Lemaitre M. (n.d.). *Quality assurance and recognition in a global perspective*. Retrieved November 22, 2020 from http://www.ehea.info/media.ehea.info/file/WG_Quality_assurance_Recognition/89/3/050519_3_Lemaitre_580893.pdf.
- Lyceum of the Philippines University (n.d.). *LPU certified under ISO 14001 and 9001 by SGS*. Retrieved October 13, 2020 from <https://manila.lpu.edu.ph/index.php/cpad-news-events/129-iso-14001-and-9001>.
- MacDonald, K. (n.d.). *Teaching methods and strategies: The complete guide*. Retrieved from <https://www.educationcorner.com/teaching-methods-strategies.html>.
- Manders, B. (2015). *Implementation and Impact of ISO 9001 (No. EPS-2014-337-LIS). ERIM Ph.D. Series Research in Management*. Erasmus Research Institute of Management. Retrieved from <http://hdl.handle.net/1765/77412>
- McKeachie, W. (2010). *McKeachie's teaching tips: Strategies, research, and theory for college and university teachers*. Cengage Learning. ISBN 0495809292, 9780495809296
- McManus, J. (n.d.). *7 industries in need of ISO 9001 certification*. Retrieved November 22, 2020 from <https://www.qms.com.au/blog-post/7-industries-in-need-of-iso-9001-certification/>.
- Mehrotra, S. (2018). *Steps for implementing a quality management system—the successful way!*. Retrieved November 22, 2020 from <https://www.greycampus.com/blog/quality-management/steps-for-implementing-a-quality-management-system-the-successful-way>.
- Miriam College Institutional News (2019). *Miriam College is ISO 9001: 2015 certified for the higher education unit and support services*. Retrieved October 13, 2020 from <https://www.mc.edu.ph/news/ArticleID/1352/iso>.



- Muiruri, Z. (2016). Quality management systems and organizational performance: a theoretical review in Kenya's public sector organizations. *Science Journal of Business and Management*. Vol. 4, No. 5, 2016, pp. 150-155
- Mulder, J. (2019). Willingness of online respondents to participate in alternative modes of data collection. *Survey Practice*. Vol. 12 (1). <https://doi.org/10.29115/SP-2019-0001>
- Nassor, F. (2015). *The impacts of ISO 9001 quality management system implementation on employees' performance of pension funds in Tanzania: A case of national social security fund (NSSF)* [White paper]. Tanzania. <https://core.ac.uk/download/pdf/44684704.pdf>
- National University (2019). *National U obtains third straight ISO certification*. Retrieved October 13, 2020 from <https://www.national-u.edu.ph/national-u-obtains-third-straight-iso-certification/>.
- Neyestani, B. (2016). *Impact of ISO 9001 certification on the projects' success of large scale (AAA) construction firms in the Philippines*. International Research Journal of Management, IT & Social Sciences. Vol. 3 (11), 2016, pp. 35-45
- Northwest Samar State University (2019). *NWSSU gets ISO 9001:2015 certification*. Retrieved October 13, 2020 from <http://main.nwssu.edu.ph/index.php/62-iso-9001-2015/674-nwssu-gets-iso-9001-2015-certification>.
- Nurcahyo, R., Aprillani, F., Muslim, E. and Wibowo, A. (2019). *The analysis of the implementation of 5-S principles integrated with ISO 9001 requirements at higher education level*. Sage Open. Vol. 9 (3). Retrieved from <https://journals.sagepub.com/doi/full/10.1177/2158244019870773>
- Ochieng, J., Muturi, D., Njihia, S. (2015). *The impact of ISO 9001 implementation on organizational performance in Kenya*. TQM Journal. Vol. 27(6):761-771
- Office of the President of the Philippines (2007). *Executive order nos.: 601-700. Manila: Malacañang records office*. Retrieved October 13, 2020 from <https://www.gov.ph/2007/02/23/executive-order-no-605-s-2007/>.
- Olsen, E. (2016). *Strategic planning kit for dummies (2nd Edition)*. John Wiley and Sons Inc. ISBN: 978-1-118-07777-1.
- Ontario Universities Council on Quality Assurance (2020). *Quality assurance: The international context*. Retrieved November 22, 2020 from <https://oucqa.ca/framework/quality-assurance-the-international-context/>.



- Osadebe, P. U. (2014). *Construction of economics achievement test for assessment of students*. World Journal of Education. Vol. 4 (2). DOI:10.5430/wje.v4n2p58.
- Peersman, G. (2015). *Impact evaluation*. Better Evaluation. Retrieved December 15, 2021 from http://www.betterevaluation.org/themes/impact_evaluation.
- Pino, G. (2018). *Cavite State University main campus now ISO 9001:2015 certified*. Retrieved October 13, 2020 from <https://www.pna.gov.ph/articles/1056439>.
- Prado, N. (2018). *Impact of accreditation on the quality of academic programs of central Mindanao university: future directions and challenges*. Yunan University, Kunming, China.
- Priede, J. (2012). *Implementation of quality management system ISO 9001 in the world and its strategic necessity* [Published manuscript]. Latvia: Elsevier Ltd.
- Quality Digest (2011). *Definition of quality: How do you define it?*. Retrieved November 20, 2020 from <https://www.qualitydigest.com/magazine/2001/nov/article/definition-quality.html>.
- Reller, T. L. (2010). *Exploring Differences in Teacher Attitudes and Instructional Strategies between traditional and Block Schedule High Schools: A Comparison of Two Small Schools* (Doctoral dissertation). Available from ProQuest Dissertations. Retrieved from <https://eric.ed.gov/?id=ED514400>
- Rettig, M., Canady R. (2013). *Elementary school scheduling: Enhancing instruction for student achievement*. Eye on Education.
- Right, J. (2018). *The importance of learning materials in teaching*. The Classroom. Retrieved from <https://www.theclassroom.com/importance-learning-materials-teaching-6628852.html>.
- Roller, R., Andrews, B., Bovee, S. (2003). *Specialized accreditation of business schools: A comparison of alternative costs, benefits, and motivations*. Journal of Education for Business, 78(4), 197-204, DOI: 10.1080/08832320309598601.
- Royce, W. (1970). *Managing the development of large software systems: Concepts and techniques*. Technical Papers of Western Electronic Show and Convention (WesCon). August 25-28, 1970, Los Angeles, USA.



- Ruiz, A., Junio-Sabio, C. (2012). *Quality assurance in higher education in the Philippines*. Asian Journal of Distance Education, Vol. 10(2), 63-70. Retrieved from <http://www.asianjde.com/ojs/index.php/AsianJDE/article/view/210>
- Santos, R., et al. (2003). *Statistics*. Manila, Philippines: CEU Mathematics Department.
- Shorelight Team. (2021). *What is a syllabus and why is it important?*. Retrieved November 20, 2020 from <https://shorelight.com/student-stories/what-is-a-syllabus-and-why-is-it-important/>
- Smith, W. G. (2008). *Does gender influence online survey participation?: A record-linking analysis of university faculty online survey response behaviour*. San José State University.
- Songsirisak, P. (2019). *Impact of homework assignment on students' learning*. Journal of Education. Vol.21 (2). Naresuan University
- Stojanovic, S. (2015). *Should universities implement ISO 9001?*. Retrieved November 22, 2020 from <https://advisera.com/9001academy/blog/2015/04/21/should-universities-implement-iso-9001/>.
- Technical Education and Skills Development Authority (2015). *TESDA gets nationwide ISO certification*. Retrieved November 23, 2020 from <https://www.tesda.gov.ph/News/Details/6491#>.
- Tety, J. L. (2016). *Role of instructional materials in academic performance in community secondary schools in Rombo district*. [Master's Thesis, University of Tanzania]. The Open University of Tanzania.
- Trinity University of Asia (2018). *Trinity University of Asia is ISO 9001:2015 certified*. Retrieved October 13, 2020 from <http://www.tua.edu.ph/news/trinity-university-of-asia-is-iso-90012015-certified/>.
- United Nations Industrial Development Organization (2012). *ISO 9001 – its relevance and impact in Asian developing economies*. Retrieved November 22, 2020 from https://www.unido.org/sites/default/files/2012-05/ISO%209001%20Impact%20Survey-eBook_ver2_0.pdf.
- University of the Cordilleras (2014). *UC is now ISO 9001:2008 certified: First among private HEIs in CAR*. Retrieved October 13, 2020 from <https://www.uc-bcf.edu.ph/Home/News?Category=All&NewsID=766>.



Wa-Mbaleka, S. (2016). *Thesis and dissertation writing fear no more*. Cavite, Philippines: Oikos Biblos Publishing House.

Woolcock, J. (2003). *Constructing a syllabus (3rd Edition)*. Brown University Publication.

The Author



CHRISTOPHER J. REBISTUAL is an Instructor and a regular faculty member of the College of Engineering, Information, and Industrial Technology (CEIIT) Institute of Information Systems and Technology (IIST), Marinduque State College, Marinduque, Philippines. He earned his Bachelor of Science in Computer Science (BSCS) degree from the Pamantasan ng Lungsod ng Maynila (*University of the City of Manila*), Manila, Philippines in 1996 where he also earned 27 units in the Master of Engineering Management (MEM) Major in Systems Management program. He obtained his Master of Arts in Education (MAED) Major in Educational Management from the Marinduque State College, Marinduque, Philippines in 2018. He is a candidate for graduation in the Doctor of Education (Ed.D) Major in Curriculum Development and Management program of the Marinduque State College, Marinduque, Philippines come August 2022. He engages himself as Principal Speaker in High-end IT Strategic Management training courses and as IT Consultant in big-ticket IT-oriented projects prior to joining the academe.