Research Practices Among Select Colleges And Universities In The Province Of Bataan: Impact On Quality Assurance

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ABSTRACT: The study aimed to determine the research practices among colleges and universities in the province of Bataan and their impact on quality assurance during the school year 2022 – 2023. It utilized the Spearman's rho correlation to determine the relationship between the research practices of the colleges and universities and their quality assurance. To determine the research practices of colleges and universities in Bataan as assessed by the three groups of respondents mean rank using the Kraskal Wallis was used. This was also utilized in determining the significant difference on the research practices of the colleges and universities as assessed by the respondents. Likewise, some statistical tool was utilized in describing the quality assurance of the colleges and universities in terms of planning, doing, checking and acting. Kraskal Wallis Test was utilized to test the significant difference in the median between variables. Finding of the study revealed that the overall research practices of colleges and universities is significantly correlated with their overall quality assurance. A high correlation coefficient of .868. It suggests that the higher the overall research practice, the higher the quality assurance and vice versa. The overall research practices are most correlated with planning having the highest correlation coefficient of .846. This is followed by acting, checking and doing. All of which have high correlation coefficient which means the components of quality assurance are practiced on research practices of the institution.

Keywords: impact, publication, quality assurance research practices

1. Introduction

Research is an impetus in the program of an institution. Therefore, the College Dean and Research Director should inspire their faculty members do research through different techniques and strategies [5].

China became one of the most powerful countries in the world through research. Its educational system has transformed research to knowledge production [2] . It maintains a desired level of quality in the production of quality research outputs.

According to the Commission on Higher Education (CHED), there are four functions that an HEI should follow: instruction, research, extension and productions. Of these four, the faculty focuses more on instruction.

Meanwhile, there are seven reasons why faculty members do not do research. They are limited time, lack of training in publication, fear of rejection, lack of interest, laziness, limited funds and lack of institutional support [4].

As mandated by CHED on Memorandum Order No. 46, S. 2012, HEI's are required to provide highly organized educational experiences that will emphasize the development of new knowledge through research and development.

In addition, there are guidelines regarding research that CHED mandates for every HEI's. At least 50% full time teachers or 30% full time teachers must have actively engaged in research for the last five years. At least 10% full time licensed teachers share patents on publication and refereed journal. Of this 5% full time teachers have publication in international indexed journal and or books in the last 5 years [1].

In research, quality assurance ensures integrity, quality and reliability which should be maintained in every stage of the research project [3] .

One of the problems in colleges and universities is that there are only very few faculty members doing research, despite the advocacy of the Commission on Higher Education on the four fundamental functions of the institution: instruction, research extension and production. Of these four fundamental functions, the most neglected is research. The problem is how to increase research productivity of the faculty members. The faculty members focus more on instruction rather than do research. Majority of them give priority to teaching. This problem needs solutions through the concerted efforts of the key officials of the institution [2] .

Likewise, research aims to produce knowledge that will be beneficial to the academic community. China transforms training of personnel to knowledge production. Chinese government has full support to research production in the universities [2] .

Knowing the importance of research and development, colleges and universities should apply strategies that would encourage and motivate the faculty to do research. There are research policies that the administration needs to initiate to give solution to this problems [6] . This is the training of faculty members on research process and increasing the stored of useful knowledge with other institutions on scientific instrumentation and methodologies and networking with users.

Apparently, knowledge production through research in the institution depends with the academic staff and post graduates students [7] . The research outputs are required to

finish a degree while others are used for academic ranking. Other countries utilize research for globalization. Mostly research production depends upon the executive leaders of the school and research leaders. [1].

However, the goals of the school on research is important accompanied by researcher action plan. The administrator can adjust job description to include research and teaching expectations [9].

Meanwhile, one way to improve the ranking of the school is by hiring the best people and assign them as Research Director, College Dean and department chairpersons [9]. Their knowledge and wisdom and experiences could be shared with the faculty members for them to do research. The creation of a research program in an institution depends largely on the support of the key officials and research leaders of the school.

The study focused on the research practices among colleges and universities in the province of Bataan and their impact on quality assurance. Specifically, it sought answers to the following:

1. Assess the research practices of colleges and universities in the province of Bataan by the three groups of respondents in terms of capability building, research colloquium, utilization, presentation/dissemination and publication.
2. Determine the significant difference on the research practices of the colleges and universities as assessed by the faculty members, research director and college dean.
3. Describe the quality assurance of the colleges and universities in terms of planning, doing, checking and acting.
4. Determine the significant relationship between the quality assurance and research practices of the colleges and universities as assessed by the three groups of respondents.
5. Determine the significant difference on the research practices of the college dean, research director and faculty members and their impact on quality assurance.
6. Determine the significant relationship between the research practices of the colleges and universities and their quality assurance.

2. Literature Review

A study conducted by Cebu Technological University found out that the research completed but not published was not significant. Significant were the number of years in service and number of years conducting research, number of papers published and number of local and international conferences attended. College instructors' capability is vital on quality and research-based instruction [6].

A research conducted by the CHED on research capability of college instructors in Luzon, Philippines revealed that research is given poor priority.

In a parallel study conducted, 92.95% of the faculty members who joined research activities for two decades, only 22.81% was engaged in conducting research [7].

Moreover, respondents assessed the research capabilities and were described as moderately agreeable [12]. Their study concluded that their capabilities in writing research proposal and publishable research papers are described as moderately capable. Likewise, facilities, time and tutoring were also moderately available. The analysis of variance test used defined that there is no significant difference in the research capabilities of respondents in writing research proposal when grouped according to sex, position, seminars and trainings attended.

Leaders of higher education institutions like President, Dean and Research Directors need to inspire and motivate their constituents to conduct research and publish it. This study found out that only very few faculty member submit research proposals for publication. The same faces of faculty members embarked on conducting and publishing research papers [8].

Without the support and assistance of senior leaders and staff, a good research profile would not be realized [8].

Executive leaders set goals with corresponding action plan on research to encourage the staff in conducting research [8].

The above mentioned situations relate to the suggestions that institutions need to hire best scholars and assigned them as Research Director, Dean or Department Chairs in order to develop culture of research among the staff and faculty members [9].

Quality assurance is a quality standard, guidelines and procedures to maintain the integrity of the product or service throughout its development [10]. The components of quality assurance is in the cycle of plan, do, check and act. The plan stage identifies and analyzes the problem followed by course of action to solve the problem. The do stage implements the plan or course of action in solving the problem. The check stage reviews and analyzes the results of implementation and evaluates the solution given. The act stage implements the tried and tested plan, go back to the plan and make adjustments to improve the plan.

A study on plan-do-act-check and act cycle gives its benefits on quality improvement [11]. The results of the study shows that the plan, do, check and act cycle is effective for a change or improvement. This is applicable in different research practices for effective and quality results.

3. Method

3.1 Research Design

The study utilized the descriptive correlational design to gather data, to test the null hypotheses and answer research problem on research practice among the colleges and universities in the province of Bataan and their impact on quality assurance during the school year 2021 – 2022. The respondents of the study were 76 faculty members, 4 research directors and 6 colleges deans of the select colleges and universities in the province of Bataan during the school year 2021 – 2022. Purposive sampling was used on the number of faculty members, college deans and research directors.

3.2 Instrument and Validity

This study utilized the researcher – made questionnaire to gather data pertinent to the study. It is composed of two (2) parts. The first part was about research practices of colleges and universities in the province of Bataan as assessed by the three groups of respondents in terms of capability building colloquium, utilization, presentation, dissemination and publication. The second part was on quality assurance of the colleges and universities as assessed by the faculty members, research director and college dean in terms of planning, doing, checking and acting. The survey questionnaire undergone face validation. There was minor revision of the questionnaire. Some statements irrelevant to the topics were replaced.

3.3 Statistical Treatment

Responses gathered from the questionnaire were statistically analyzed. Statistics such as mean rank using the Kraskal Wallis was used to determine the research practices of colleges and universities in Bataan as assessed by the three groups of respondents. This was also utilized in determining the significant differences on the research practices of the colleges and universities as assessed by the three groups of respondents. Likewise, the same statistical tool was applied in describing the quality assurance of the colleges and universities in terms of planning, doing, checking and acting. Kraskal Wallis Test was applied to test the significant difference in the median between variables. However, Spearman's rho correlation was used to determine the relationships between the research practices and quality assurance of the colleges and universities in the province of Bataan.

4. Results

Table 1 presents the research practices of select colleges and universities in the province of Bataan in terms of capability building.

Table 1. *Research practices of select colleges and universities in the province of Bataan in terms of capability building*

Indicators	$\bar{x}$			μ	*Descriptive Rating*
	Faculty (76)	*College Dean (6)*	*Research Director (4)*		
1. There is research capability building in an institution every semester	3.72	4.67	4.25	3.80	Practiced
2. All faculty members are writing/doing research	3.18	3.83	3.50	3.24	Moderately Practiced
3. The school has an action plan on Research Capability Building	3.55	4.50	4.00	3.63	Practiced
4. The Training Needs Assessment (TNA) on research is taken yearly	3.49	4.33	3.50	3.56	Practiced
5. The management provides budget on the research capability program of the school	3.88	4.33	4.00	3.90	Practiced
Composite Mean	**3.56**	**4.33**	**3.85**	**3.63**	**Practiced**

As shown in the table, the composite mean of the faculty, college dean and research director is 3.63 (Practiced) on the capability building of the school. However, there is an indicator that obtained a weighted mean of 3.24 (Moderately Practiced) wherein the faculty obtained a mean of 3.18 that all faculty members are doing/writing research. It implies that seminars, conferences, study seminars and other related research activities help the teachers do research.

Table 2 shows the research practices of select colleges and universities in the province of Bataan in terms of research colloquium.

Table 2. *Research practices of select colleges and universities in the province of Bataan in terms of research colloquium*

Indicators	$\bar{x}$			μ	*Descriptive Rating*
	Faculty (76)	*College Dean (6)*	*Research Director (4)*		
1. The research colloquium for faculty members is held yearly	3.50	4.83	4.00	3.61	Practiced
2. The researchers present their papers	3.66	4.83	4.00	3.76	Practiced
3. Experts on research from other agencies are invited to serve as reactors on research colloquium	3.75	4.67	4.25	3.83	Practiced
4. There is incentive given to the best paper presented during the colloquium	3.96	4.67	3.75	3.84	Practiced
5. The research reactors give comments and recommendations	4.04	4.50	4.00	4.08	Practiced
Composite Mean	**3.74**	**4.70**	**4.00**	**3.82**	**Practiced**

As shown in this table, the composite mean of the faculty, colleges dean and research director is 3.82 (Practiced). They agree on the holding of research colloquium in their institution following the mechanics of holding it yearly. They obtain a highest weighted mean of 4.08 (Practiced) on the indicator that the research reactors give comments and recommendations. They agree that the research paper will be improved through the comments and suggestions from experts on research. It is needed before its publication in the local, regional, national and international levels.

Table 3 describes the research practices of select colleges and universities in the province of Bataan in terms of research utilization.

Table 3. *Research practices of select colleges and universities in the province of Bataan in terms of research utilization*

Indicators	$\bar{x}$			μ	Descriptive Rating
	Faculty (76)	College Dean (6)	Research Director (4)		
1. The researcher is asked during the presentation of his paper on how he intends to utilize the findings of his study	3.83	4.67	4.25	3.90	Practiced
2. The different agencies concerned are provided with the results of the study for their utilization	3.74	4.50	3.75	3.80	Practiced
3. The researcher submits to the management/administration results of the study for policy recommendations	3.80	4.33	3.75	3.85	Practiced
4. The papers are presented outside the campus to concerned agencies	3.53	4.50	3.75	3.61	Practiced
5. The College Dean discusses during the faculty meeting the results/findings of the study for school policy	3.54	3.83	4.00	3.56	Practiced
Composite Mean	**3.69**	**4.37**	**3.90**	**3.74**	**Practiced**

Findings revealed that the composite mean on research utilization by the three groups of respondents is 3.74 (Practiced). They agree on the utilization of their research outputs. The highest weighted mean attain on research utilization is 3.90 (Practiced) on indicator that the researcher is asked during the presentation on how he intends to utilize the findings of his study. Usually, it is indicated in the title of the research paper whether the researcher output could be a module, workbook, practice exercises, evaluation etc. that could be implemented for instructional purposes.

Table 4 stipulates the research practices of select colleges and universities in the province of Bataan in terms of research presentation and dissemination.

Table 4. *Research practices of select colleges and universities in the province of Bataan in terms of research presentation and dissemination*

Indicators	$\bar{x}$			μ	Descriptive Rating
	Faculty (76)	College Dean (6)	Research Director (4)		
1. Research studies of the faculty members are presented/ disseminated during faculty meeting and during seminar/webinar	3.49	3.83	3.75	3.52	Practiced
2. The participants ask question during the presentation of the research paper of the faculty	3.54	4.67	4.25	3.63	Practiced
3. The research papers are presented using a Power Point presentation	3.71	4.83	4.25	3.81	Practiced
4. School leaders are invited on research presentation of the faculty	3.71	4.50	4.25	3.78	Practiced
5. The comments/suggestions on research paper are utilized for the improvement of the research paper	3.99	4.50	4.00	4.03	Practiced
Composite Mean	**3.69**	**4.47**	**4.10**	**3.75**	**Practiced**

Findings revealed that the composite mean on research presentation and dissemination is 3.75 (Practiced). The three groups of respondents agree that research presentation and dissemination are being practiced in their institution. The highest weighted mean is 4.03 (Practiced) on indicator about the comments/suggestions on research paper. Usually, the research presentation of the faculty is held during the faculty meeting where the faculty ask questions on the research presented. Likewise, the school leaders are also present observing the interactions of the participants.

Table 5 presents the research practices of select colleges and universities in the province of Bataan in terms of research publication.

Table 5. *Research practices of select colleges and universities in the province of Bataan in terms of research publication*

Indicators	$\bar{x}$			μ	Descriptive Rating
	Faculty (76)	College Dean (6)	Research Director (4)		
1. The faculty members are engaged to conduct quality research outputs for publication in the local, regional, national, international and refereed journal	3.67	3.83	4.00	3.68	Practiced
2. The institution establishes partnership on research for publication of research output	3.66	4.67	3.50	3.74	Practiced
3. There are school policies for publication of research output	3.63	4.83	4.25	3.73	Practiced
4. The faculty researchers collaborate with other institutions for publication of research	3.61	4.50	4.00	3.68	Practiced
5. The finished researches are published in international, national or local publication	3.50	4.50	3.75	3.58	Practiced
Composite Mean	**3.61**	**4.47**	**3.90**	**3.69**	**Practiced**

Based on the findings, the composite mean on research publication is 3.69 (Practiced). The three groups of respondents agree on research publication. The highest weighted mean of 3.74 (Practiced) is on indicator that the institution establishes partnership on research for publication of research output. The three groups of respondents believe that partnership with other institution gives more advantages to both parties. There will be collaboration most especially on the publication of research. Not all institutions could publish research in the international level because the research paper needs quality in content, format and findings.

Table 6 focuses on quality assurance of the select colleges and universities in terms of planning.

Table 6. *Quality Assurance of the select colleges and universities in terms of planning*

Indicators	$\bar{x}$			μ	Descriptive Rating
	Faculty (76)	College Dean (6)	Research Director (4)		
1. The school has a research development plan yearly based on the Training Needs Assessment (TNA)	3.62	4.67	4.00	3.71	Practiced
2. There are internet resources that are functional in the school	3.95	4.17	4.26	3.98	Practiced
3. The school follows the quality standards and requirements in research	3.92	4.67	4.00	3.98	Practiced
4. The procedure in research is utilized to ensure that criteria are met	3.92	4.50	4.00	3.97	Practiced
5. Each curricular program has its own action plan on research annually	3.57	4.67	4.00	3.66	Practiced
Composite Mean	**3.78**	**4.53**	**4.00**	**3.86**	**Practiced**

Based on the findings, the three groups of respondents agreed that planning a component of quality assurance obtained a composite mean of 3.86 (Practiced). However, the lowest weighted mean of 3.66 (Practiced) is on indicator that each curricular program has its own action plan on research annually. It may imply that research needs to be integrated in all curricular programs through an action plan. It may include the research activities to be conducted by the faculty in each curricular program.

Table 7 deals on quality assurance of the select colleges and universities in terms of planning.

Table 7. *Quality Assurance of the select colleges and universities in terms of planning*

Indicators	$\bar{x}$			μ	Descriptive Rating
	Faculty (76)	College Dean (6)	Research Director (4)		
1. The research development plan is being implemented by the school	3.67	4.67	4.25	3.77	Practiced
2. There are supporting documentation for its implementation	3.66	4.67	4.00	3.74	Practiced
3. Important activities on research are	3.70	4.50	3.75	3.76	Practiced

	documented like ISO, policies, procedures, training materials filed in a document management system					
4.	There are trainings of faculty on new research process etc.	3.66	4.50	4.00	3.64	Practiced
5.	The faculty members and students are updated on quality management system	3.67	4.50	4.00	3.74	Practiced
	Composite Mean	**3.65**	**4.57**	**4.00**	**3.73**	**Practiced**

As shown in the table, the composite mean is 3.73 (Practiced). The highest weighted mean is 3.77 (Practiced) on research development plan is being implemented by the school. It implies that the Annual Research Development Plan serves as a guide on the research activities for a year. This research development plan is also being implemented by department and is being evaluated at the end of the school year. The lowest weighted mean is 3.64 (Practiced) on trainings of faculty on new research process. It may imply that the faculty needs to be updated on different research processes. The school policy on research could be a good instrument to engage the faculty to do research.

Table 8 presents the quality assurance of the colleges and universities in terms of checking.

Table 8. *Quality Assurance of the select colleges and universities in terms of checking*

	Indicators	$\bar{x}$			***μ***	***Descriptive Rating***
		Faculty (76)	***College Dean (6)***	***Research Director (4)***		
1.	There is monitoring of research outputs	3.83	4.67	4.00	3.90	Practiced
2.	The articles prepared by the faculty and students are being checked/improved	3.72	4.50	4.00	3.79	Practiced
3.	Training programs are checked based on Training Needs Assessment	3.78	4.50	4.00	3.84	Practiced
4.	The outputs of the faculty are monitored to ensure that they meet expected criteria	3.72	4.33	4.00	3.76	Practiced
5.	The research output of a teacher is checked till it meets quality	3.76	4.33	4.00	3.81	Practiced
	Composite Mean	**3.76**	**4.47**	**4.00**	**3.82**	**Practiced**

The findings revealed that the composite mean is 3.82 (Practiced) implies that the three group of respondents – faculty, college dean and research director agree on the importance of checking every detail of the activity. As noted, the highest weighted mean is 3.90 (Practiced) on monitoring of research outputs. Whereas, the lowest weighted mean of 3.76 (Practiced) is an outputs of the faculty are monitored to determine if they meet the standard/criteria.

Table 9 presents the quality assurance of the select colleges and universities in terms of acting.

Table 9. *Quality Assurance of the select colleges and universities in terms of acting*

	Indicators	$\bar{x}$			***μ***	***Descriptive Rating***
		Faculty (76)	***College Dean (6)***	***Research Director (4)***		
1.	The implementation of the Research Development Plan is evaluated to determine the activities taken up	3.76	4.33	4.00	3.81	Practiced
2.	The research outputs by department are assessed	3.75	4.33	3.75	3.79	Practiced
3.	The publication of research paper is made functional	3.67	3.83	3.75	3.69	Practiced
4.	The policies on research publication are re-evaluated to engage the faculty members to publish paper on the different journals	3.78	4.00	3.75	3.79	Practiced
5.	The research director coordinates with the administration to seek budget for research publication	3.82	4.50	4.25	3.88	Practiced
	Composite Mean	**3.76**	**4.20**	**3.90**	**3.79**	**Practiced**

As shown in the table, the highest weighted mean of 3.88 (Practiced). The research director coordinates with the administration to seek budget for research publication. It implies that the administration is supportive of the research program of the school. There is budget utilized for research activities yearly. However, the lowest weighted mean of 3.69 (Practiced) is on publication of the research paper. Actually, this is the most difficult in an institution. Publishing research output in the international level needs to be of quality research. It implies that more assistance and trainings are needed by the faculty and school leaders on research to produce quality research outputs.

Table 10 presents the difference in the assessment of the three groups of respondents on the quality assurance of the select colleges and universities in the province of Bataan.

Table 10. *Difference in the assessment of the three groups regulates on the quality assurance of the select colleges and universities*

Quality Assurance	*Group*	*Mean Rank*	*Kruskal Wallis*	*Sig*	*Remarks*
Planning	Teacher	41.87	3.496	0.174	Not Significant
	College Dean	61.08			
	Research Director	48.13			
Doing	Teacher	41.89	3.744	0.154	Not Significant
	College Dean	61.83			
	Research Director	46.50			
Checking	Teacher	42.03	3.236	0.198	Not Significant
	College Dean	60.67			
	Research Director	45.75			
Acting	Teacher	42.69	1.133	0.568	Not Significant
	College Dean	53.83			
	Research Director	43.38			
Overall Quality	Teacher	42.10	2.516	0.284	Not Significant
	College Dean	58.42			
	Research Director	47.75			

Evidently, the differences in the mean rank obtained from the assessment of the three groups of respondents regarding planning, doing, checking and acting, yielded no significant difference as supported by the p – values which are all greater than .05. This suggests that the college dean and research directors and the faculty members who conduct most of the research, have the some assessment with respect to the quality assurance of the institutions where they belong. To come up with the components of quality assurance, the three groups of respondents see to it that everything agreed upon during the planning stage is operating as it was. They see to it that all processes are well – reviewed for implementation. This is the process of physical inspection and testing.

Table 11 describes the difference in the assessment of research practices of the colleges and universities by the faculty members, research director and college deans.

Table 11. *Difference in the Assessment of Research Practices of the Colleges and Universities by the Faculty Members, Research Directors and College Deans*

Research Practices	*Group*	*Mean Rank*	*Kruskal Wallis*	*Sig*	*Remarks*
Research Capability	Teacher	41.95	3.660	0.160	Not Significant
	College Dean	62.08			
	Research Director	45.13			
Research Colloquium	Teacher	41.86	4.116	0.128	Not Significant
	College Dean	62.75			
	Research Director	45.88			
Research Utilization	Teacher	42.38	2.018	0.365	Not Significant
	College Dean	57.33			
	Research Director	44.13			
Research Presentation	Teacher	41.99	2.780	0.249	Not Significant
	College Dean	58.75			
	Research Director	49.25			
Research Publication	Teacher	42.46	1.423	0.491	Not Significant
	College Dean	54.75			
	Research Director	46.38			
Overall Research Practices	Teacher	41.89	3.593	0.166	Not Significant
	College Dean	61.75			
	Research Director	46.75			

On the practices in terms of research capability, the college deans gave the highest mean rank of 62.08 as against the ratings of 45.13 and 41.91 given by the research director and faculty members respectively. Although, the assessment of the college deans is higher than their subordinates, the difference is not significant as shown by the H – value of 3.66 which is not significant at .05 level. Similarly, in all other practices, to wit, research colloquium, research utilization, research presentation and research publication, the college deans have highest mean rank ratings over the research directors and the faculty members. The difference in their assessment is not significant by the p – values which is all greater than .05 level. It could be assumed that the college deans used to observe the performance of the faculty members and the research director. The overall difference in the assessment of the three groups of respondents on the research practices of select colleges and universities in the province of Bataan is not significant having an H-value of 3.59 and a p-value of 0.166. It could be implied that the research culture of the institution encompasses the behaviour, attitude and values of the academic community. It influences the way that research is conducted and communicated. (The Royal Family, 2023)

Table 12 stipulates the relationship between the research practices and quality assurance of the colleges and universities.

Findings revealed that the overall research practices of the different colleges and universities is significantly correlated with their overall quality assurance, a high correlation coefficient of .868. This correlation coefficient suggests that the higher, the overall research practices, the higher the quality assurance and vice versa.

Quality Assurance activities are utilized to improve or monitor the services conducted by an institution. This is done by analysing the data on current research practices. In quality assurance the things agreed to do are being executed to be able to achieve the expected outcomes (EMFS Research Hub, May, 2021).

Specifically, the publication is the most correlated with overall quality assurance, with a high correlation coefficient of .829. Also research capability, research utilization and colloquium have high correlation coefficient with the overall quality assurance. On the other hand, presentation has only moderately high relationship with overall quality assurance. It implies that research outputs to be of quality need to comply with standards on publication of research paper. In – house capability building activities and colloquium lead to research improvement to come up with quality.

In contrast, the overall research practices are most correlated with planning having the highest correlation coefficient of .846. This is followed by acting, checking and doing. All of which have high correlation coefficient. This means that the components of quality assurance are implemented on different research practices of the institution on any activity. Planning is very important because without it, the activity will surely fail.

Table 12. *Relationship between the research practices and quality assurance of the colleges and universities*

Research Practices		***Quality Assurance***				
		Planning	*Doing*	*Checking*	*Acting*	*Overall quality Assurance*
Capability	Correlation Coefficient	.772**	.784**	.797**	.799**	.822**
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000
Colloquium	Correlation Coefficient	.795**	.752**	.779**	.806**	.802**
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000
Utilization	Correlation Coefficient	.794**	.753**	.802**	.799**	.816**
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000
Presentation	Correlation Coefficient	.750**	.694**	.752**	.741**	.774**
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000
Publication	Correlation Coefficient	.822**	.793**	.781**	.813**	.829**
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000
Overall	**Correlation Coefficient**	**.846**	**.814**	**.838**	**.844**	**.868**
	Sig. (2-tailed)	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**

Further, analysis shows that publication obtained the highest correlation coefficient with planning and acting having r values of .822 and .813 respectfully and high correlation indeed. Publication of research output implies quality of research. It provides researcher's effort on research and gives recognition to an institution. Any plan without implementation is useless. In publishing research paper, there is a lot of planning done to come up with the standards. Furthermore, research capability is most correlated with acting having a moderately high correlation coefficient of .799 and it is least correlated with planning having a correlation coefficient of .772. Colloquium is most correlated with acting having a high correlation coefficient of .806. This is followed by planning and checking with moderately high relationships. The said variable is least correlated with doing having a correlation coefficient of .752.

Similarly utilization is highly correlated with checking with a correlation coefficient of .802 followed by acting and planning. Again, it is least correlated with doing having a correlation coefficient of .753. Presentation is moderately correlated with all the components of quality assurance with checking as the highest and doing as the lowest having correlation coefficient of .752 and .694 respectively. Doing has the lowest correlation with presentation. It could be implied that planning be done before its implementation. In the presentation of research outputs, the research process must be done step by step to come up with quality on the presentation of research outputs. Changes made should be carried out and accomplished. The plan, do, check and act, are ideal for carrying out change [2].

Discussion

In every institution, majority of the faculty are not engaged in writing research. They prefer to teach rather than do research. In Bhucan, few instructors are engaged in research writing for lack of ideas and high burden of job in school. It could be that they are not interested in research and most especially lack of time to research. There are very few among teachers who are capable of writing research [5] . This problem among colleges and universities needs to be addressed. The school administration should therefore apply policies that will motivate the faculty researchers to do research. It is something related to promotion in work and monetary incentives and more attractive benefits.

Findings of the study revealed that research practices in capability building, colloquium, utilization, presentation, dissemination and publication are agreeable to the faculty, research director and college deans in their respective colleges and universities. Relative to this, teachers must consider the research foundations in order to apply evidence – based practice effectively [7] . The study recommended to adopt capacity building programs to help the teachers raise their level of capability in research.

Quality assurance is the systematic, structured and continuous quality in terms of improvement. In the different institutions quality assurance practices in tertiary education includes planning, doing, checking and acting [8] . Quality assurance covers the whole project and is not to a particular phase only. It ensures quality and meet the standards that are required to the project. Of these four components of quality assurance, planning is very important on any project because without it, the project will surely fail. In research these four components of quality assurance planning, doing, checking and acting are very much applicable in the implementation of research related activities like capability building, colloquium, presentation and publication. The respondents agree that these are implemented in colleges and universities in Bataan but they differ most probably in terms of frequency and quality.

The results of the study revealed that the research practices of the colleges and universities as assessed by the three groups of respondents in the province of Bataan is not significant having an H. Value of 3.59 and a p-value of 0.166. Relative to this, research culture of the institution encompasses the behaviour attitude and values of the research community [9]

In all other practices to wit colloquium, utilization, presentation and publication, the college dean obtained the highest mean rank. Most possibly because of her position which is higher than the research director and faculty members. This may imply that the dean is an academic leader as such, she is responsible for the ethical conduct of research and for establishing and monitoring a culture of compliance and integrity among faculty staff and students [9].

As revealed, the overall research practices of the colleges and universities is significantly correlated with their overall quality assurance. It suggests that the higher, the overall research practices, the higher the quality assurance and vice versa.

Conclusions

It was concluded that the difference in the mean rank obtained from the assessments of the three groups of respondents regarding planning, doing, checking and acting yielded no significant difference as supported by the p value which are greater than .05. This suggests that the college dean, research director and the faculty members who conduct most of the researches have the same assessment with respect to the quality assurance of the institution where they belong. The overall difference in the assessment of the three groups of respondents are the research practices of select colleges and universities in the province of Bataan is not significant having an H. value of 3.59 and a p-value of 0.166. The over – all research practices of the different colleges and universities in Bataan is significantly correlated with their overall quality assurance, a high correlation coefficient of .868. This correlation coefficient suggests that the higher, the overall research practices, the higher the quality assurance and vice versa.

Recommendations

The administration should create the position of a research director who is expert in research. Research Director should coordinate with the administration regarding research policies that could engage and motivate faculty members to do/write research. There is a need for colleges and universities to implement the major components of quality assurance: plan, do, check and act on research programs and projects to ensure the efficiency and effectiveness of research output. The research leader of an institution should set as role model of the faculty members in the implementation of research practices. Open the lines of communication in the research office to determine the assistance needed by the faculty members or any school stakeholders on research. The components of quality assurance are important to uplift the research program of an institution that exercise independent judgment, reasonable case, skill and diligence. It is recommended that each institution should organize a coordinator on quality assurance to supervise the program of the committee on quality assurance. To ensure active participation of the faculty members on the research program of the institution, research should be included by the administration in the ranking of employees for promotion, for increase of salary of the employees and for the evaluation of the performance of the employees. Publications of research output/paper in the international level should be done in an institution for quality of research outputs.

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