

Revisiting Administration's Task and Support to Natural Science Program among State Universities

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Abstract: All state university presidents aim to enhance and focus on their unwavering commitment to academic excellence and student success through financial viability, superior teaching, innovative activities, research and public service. In this light, the researcher conducted a study to reveal the academic officers, non-academic officers, and science instructors' assessment on the administrations' task and support to Natural Science (NS) program. Through the use of self-made questionnaire, this study revealed that the administration supports NS program to a great extent. Further, there is no significant difference among the assessments of the three groups of respondents regarding the extent to which the administration supports NS program. These results signify that the administration develops the image and reputation of efficient governance, transformational leadership and sound management to reinforce NS program. This study offers recommendations to further strengthen administration's provision to NS program.

Keywords: Natural Science, Administration, Strategic Plan, Educational Management

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Introduction

The pace of technological progress brought about by science and technology is continuously brushing up Asia and the Pacific as it did in the past. All of us will find ourselves riding in a technological revolution that will forever modify how we live. There are certainly a lot of things to look forward to and these are just few of the effects of this drastic modernization. If nations ignore and foster them only with reserve, they can be doomed to unnecessary constraints, weaknesses and backwardness. Due to this revolution, the Philippines felt the need for envisioning credentialed education for quality life of the Filipinos which is believed to be the key factor in understanding scientific and technological applications creating a world of citizens aware of the problem brought by modernization and equipped with knowledge and skills to solve them (Salandanan, 2005). Through this, making the Filipinos prepared for life changes and challenges would be possible.

In fact, this matter was reiterated in the Commission of Higher Education (CHED) Long Term Higher Education Plan, 1996-2005. This emphasizes the role of Higher Education that it shall be geared toward the pursuit of better quality of life for all Filipinos by emphasizing the acquisition of knowledge and formation of skills necessary to make each individual a

productive member of society. It shall likewise ensure that the productive capacity of the country's human resources shall be harnessed towards international competitiveness (EDCOM, 1991).

In the same document, LTHED Plan states:

“Higher education must address itself to the national aspirations, progress, and equity. It must help eradicate the ills of society, mainly poverty and injustice. To fill these functions Higher Education must inculcate the basic attitude necessary for nation building, offer appropriate theoretical and scientific knowledge and promote the professions and the Technology for national development which determine the direction of education as well as the medium to propel the country towards economic prosperity and readiness for life's challenges.”

Certainly, higher education has a great responsibility on problems of quality, excellence, relevance and responsiveness, accountability and efficiency of educational programs. In its hands lie the success of having competitive citizenry/graduates who can help the country achieve prosperity and economic stability. In this light, according to Recto (2005) CHED establishes policies and standards for all Higher Education Institutions (HEIs) to follow and comply with to assure quality education. Republic Act (RA) 7722 states:

“In accordance with the pertinent provision of Republic Act (RA) No. 7722, otherwise known as the “Higher Education Act of 1994”, and in order to update the General Education Curriculum to make the same more responsive to the demands of the next millennium, a new GEC is hereby adopted and promulgated by the Commission to be required and implemented as part of all the baccalaureate degree programs in all Higher Education Institutions (HEIs) in the Philippines.”

In this regard, the five state universities (SUs) in the CALABARZON region such as Batangas State University, Cavite State University, Laguna State Polytechnic University, Southern Luzon Polytechnic University and University of Rizal System need to evaluate the importance and relevance of specific subjects in the courses they offer and have the academic freedom to formulate and implement their own curricula. However, CHED requires them to follow the minimum guidelines stipulated in the CMO. It is also their discretion which curriculum to follow, although, both curricula-GEC-A and GEC-B- aimed to provide college students the foundation of education from which specialization in an area of knowledge is assured. This means that the preparatory courses taken by every student in college are appropriate to prepare him in the pursuit of professional discipline (CHED Memorandum Order 30, s. 2004). Inclusion of Science in curricula aims to achieve a high level of “scientific literacy” to enable citizens to participate effectively in modern societies and be propellers of the country's progress. Under GEC, Natural Sciences (NS) was included, and these are Earth and Environmental Science, Biological Science, Science Technology and Chemistry. These course offering in the aforementioned SUs differ in terms of the number of hours allotted for lecture and laboratory requirements while other subjects do not have laboratory at all.

For the teaching of Natural Science in an institution of higher education be effective, all the principal elements of the learning environment must be provided for by the school administration. First, the need for empowered and competent teachers is necessary because they are the key players in a learning process. Moreover, the learning process must be aided with ample materials for instruction. These materials represent elements found in the

environment and meant to help not only the teachers, but also the students to understand the topic clearly, to apply the concepts discussed and lastly, to explain reality through investigation and laboratory activities. Lastly, physical plant and facilities relative to science instruction must be take account as well. In this light, the administration should prioritize and support science and technology education through vigorous funding that will alleviate the problems besetting science instruction. Moreover, the administration's task and support to science education in terms of providing opportunities that may bring about optimum results and in the realization of instructional objectives through the key result areas such as faculty, support personnel, curriculum, finance, supplies, equipment, and school plant significantly contribute to the success of science instruction.

With the recognized significance of administration task and support that is crucial for the success of natural science instruction as discussed previously that this study was conceptualized. The desire to enrich the quality of science education motivated the researcher to determine the evaluation of the academic officers, non-academic officers and faculty members on administration task and support to NS program among the five State Universities in the CALABARZON Region during the Academic Year (AY) 2011-2012, with the end goal of drawing the implications of the findings of the study to management's support to NS program. Further, the researcher believes that their support to natural science instruction will enable tomorrow's population to have a better understanding of sciences and the world around them and will aid them create sensible decisions that might help not only their selves but the country as well. It can break the Filipino's seemingly endless cycle of poverty, and provide the people, particularly the youth, with more opportunities and horizons both locally and internationally.

Materials and Method

In order to elicit the information needed in the study, the researcher used a self-constructed questionnaire. This was based on the different scanned educational books, relevant memorandum orders and the like and numerous reviewed research studies that have significant bearing to this present study. This was composed of 15 items intended to determine if there are manifestations of administration's support to NS program. For the assessment of the academic officers (e.g. College Dean and program Chairs), the non-academic officers (e.g. Human Resource Manager, Librarian and Accountant), and the science Instructors regarding the administration task and support to natural science program, the following mean score ranges and verbal interpretation was utilized.

Weight	Limit	Verbal Interpretation
5	4.51-5.00	To a very great extent (TVGE)
4	3.51- 4.50	To a great extent (TGE)
3	2.51-3.50	To a moderate extent (TME)
2	1.51-2.50	To a least extent (TLE)
1	1.00-1.50	Not evident (NE)

Communication letter was prepared to seek approval from the university presidents to float the questionnaire. Upon approval, the researcher properly consulted the deans of concerned college for the schedule of the administration of the questionnaire. Also, she personally distributed and retrieved the questionnaire. Gathered data were checked, tallied, scored, and treated through weighted mean and T- test. Careful interpretations and analyses of the data afforded the researcher to come up with management plan to strengthen natural sciences program.

Results and Discussions

Table 1 presents the assessment of the three groups of respondents regarding the extent to which the administration supports natural sciences program.

Table 1. Assessment of the Respondents on the Extent the Administration’s Task and Support to Natural Science Program

Item Statements	Academic Officer		Non-academic Officers		Faculty members	
	Mean	VI	Mean	VI	Mean	VI
The administration...						
1. designates qualified academic officers for science area	4.02	TGE	3.81	TGE	4.05	TGE
2. announces and explains memoranda (e.g. CHED, DOST) directly and indirectly related to the science education courses.	4.08	TGE	3.81	TGE	3.83	TGE
3. strictly implements the policies and standards intended for science instruction.	3.84	TGE	3.69	TGE	3.34	TME
4. formulates strategic plan for the science education.	3.78	TGE	3.81	TGE	3.54	TGE
5. prioritizes the needs of quality science instruction as to procurement of resources.	3.80	TGE	3.75	TGE	3.59	TGE
6. organizes a functional faculty development program specifically for the science instructors.	3.98	TGE	3.88	TGE	4.05	TGE
7. establishes linkages with other universities and outside environment.	3.88	TGE	3.50	TGE	3.86	TGE
8. implements student services policies that promote holistic development of students..	3.58	TGE	3.50	TGE	3.63	TGE
9. conducts periodic evaluation of the science instructor’s performance and science program itself as basis for future direction.	3.88	TGE	3.94	TGE	4.06	TGE
10. allocates reasonable budget for the realization of goals and objectives.	3.60	TGE	3.44	TGE	3.95	TGE

11. sees to it that the classroom is organized and maintained in such a way that students can learn science facts and concepts during lecture discussions.	3.84	TGE	3.69	TGE	3.88	TGE
12. encourage faculty members to conduct research activity through giving of honorarium and deloading of teaching units.	4.24	TGE	4.06	TGE	3.93	TGE
13. requires that the instructors considers numerous science-related activities inside and outside the classroom in crafting their individualized subject syllabus.	3.78	TGE	4.00	TGE	3.44	TGE
14. gives the student's opportunities to participate in academic contests and trainings/seminars/conferences related to science.	3.86	TGE	3.81	TGE	3.80	TGE
15. sees to it that student's services and activities are made available to assure the reasonable development of their interests and talents.	3.76	TGE	4.00	TGE	3.85	TGE
Grand Weighted Mean	3.84	TG E	3.80	TGE	3.75	TGE

Legend: 4.51-5.00- to a very great extent (TVGE), 3.51-4.50- to a great extent (TGE); 2.51-3.50- to a moderate extent (TME); 1.51-2.50- to a least extent (TLE), 1.00-1.50- Not evident (NE)

It can be gleaned from the table that the administration supported science instruction to a great extent, specifically, encouraging faculty members to conduct research activity through giving of honorarium and deloading of teaching units. This was ranked as the highest on the assessments made by academic and non -academic officers with a weighted mean value of 4.24 and 4.06 respectively. This finding manifested that the administration harmonized their research policy with CHED and faculty researches received grants for their research involvement. Meanwhile, the faculty members' assessment obtained a mean of 3.93, interpreted as to a great extent.

Moreover, the faculty members assessed that the administration, through their deans and program chairs, conducts periodic evaluation of their performance and science program to a great extent. This was highest in rank, with a mean value of 4.06. Similarly, the assessments made by academic and non -academic officers on periodic evaluation was also to a great extent, with obtained mean values of 3.88 and 3.94 respectively. This implies that the

administration regularly monitors and evaluates science program as to faculty members' teaching effectiveness to ensure quality. On the other hand, faculty members' assessed that the administration to a moderately extent supported science education through implementation of policies and standards intended for science instruction. This obtained a mean of 3.34. However, the academic and non-academic officers revealed that they supported this matter to great extent as manifested by the mean values of 3.84 and 3.69 respectively. The different assessments imply that the faculty members felt that the administration still lacks support in carrying out the goals of science education.

In general, the administration supported natural science program to a very great extent as revealed by grand weighted mean of 3.84, 3.80 and 3.75. This finding was supported by the notions of Salandanan (2006) in which all science educators and administrators of science specialists must joined efforts in redirecting the science instruction in all schools. However, this finding was opposed to the study of Gabriel (2003) which revealed that not much effort was exerted by the administrators and faculty concerned in all aspects of the delivery system of the HRM program.

On the other hand, Table 2 presents the comparison of the assessment made by the academic officers, non-academic officers and faculty members concerning the extent to which the administration supports natural science program. It can be gleaned from the table that the null hypothesis tested at five percent level of significance was accepted. The p-value which is .894 is found to be higher than the assigned level of significance. Hence, there is no significant difference between the assessments of the three groups of respondents regarding the extent to which the administration supports science education.

Table 2. Comparison of the Assessment of the Three Groups of Respondents regarding the Administration's Task and Support to Science Education

Variable	Group	Mean	F-computed	P-value	Decision	Remarks
Administration's Task and Support to Science Education Grand Mean	Academic officer	3.84	.112	.894	Accept H_0	Not Significant
	Non-academic officer	3.80				
	Faculty members	3.75				

The data shows that the null hypothesis tested at five percent level of significance was accepted; the p-value of .894 is greater than the assigned level of significance which is 0.05. Hence, there is no significant difference on the assessments made by the three groups of respondents.

Similar assessments of the three groups of respondents were expected due to the fact that they are responsible for the productivity and stability of the university. They take part and contribute in every planning and decision-making procedures of the university. It is they, more than anyone else, who are aware and understand the extent of support and assistance rendered and will be rendered by the administration. These results were supported by the notions of Bilbao (2006) which states that all stakeholders have a direct and indirect influence on the success of a program.

Conclusion and Recommendation

A positive NS instruction doesn't just lie on the competency of the faculty members, analysis of the learning needs of the students, and modernized instructional materials, but also lies on the amount of support the management gives for instruction. In this regard, senior and junior officials of the state universities should develop and implement funding strategies to improve the financial position of the University to better provide the needs of NS program. The researcher conducted a study to reveal the academic officers (e.g. College Dean and program Chairs), the non-academic officers (e.g. Human Resource Manager, Librarian and Accountant), and the science Instructors' assessment on the administrations' task and support to NS program.

Based from the results of this study, the administration supports NS program to a great extent. Further, there is no significant difference among the assessments of the three groups of respondents regarding the extent to which the administration supports NS program. These results implicate that the administration endeavors to develop the image and reputation of efficient governance, transformational leadership and sound management to reinforce NS program.

In consonance with the above-cited results and implications to the intended community, an active and on-going strategic planning may be initiated by the administration. Increased emphasis on administrative accountability that will lead to more outcomes assessment and benchmarking may be done. Further, communication between faculty members handling science courses and administration to address current issues must be improved to better gain baseline information on the matters to include in the strategic and procurement plan. Conduct a review of budgeted income and expenditures on NS programs based on actual results of operation and implement cost efficiency programs in the delivery of administrative services, building construction and renovation, utilities and other expenditures may be carried out. A review of the current human resource and support services and programs provided by the Human Resource Management Office may be executed to further motivate the science faculty members to continue their professional development. Lastly, the management, as subject of this study, may use the result of this investigation as basis for their personal reflection as this would encourage and further motivate them to improve their present accomplishment.

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