Theory to Practice: A Basis for Establishing the Culture of Research in Bulihan Integrated National High School (BINHS)

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ABSTRACT

This research endeavour explored and assessed the culture of research in Bulihan Integrated National High School for teachers. Through this, it will design a research program that will help teachers to conduct research on their own. This study used descriptive research design and there are 126 teachers respondents in Bulihan Integrated National High School. The researcher utilized stratified sampling. The salient findings of the study that a total of six (6) teachers had their contribution for school work plan for the past three (3) years from 2015-2018. The participants are agree to all the indicators on assessment of culture of research in terms of "I will engage in research" with overall weighted mean of 4.08 with a verbal interpretation of agree. Moreover, the participants are neutral to all the indicators on assessment of culture of research in terms of "I will not engage in research" with overall weighted mean of 3.09 with a verbal interpretation of neutral. This study is limited for teachers and school administrators in the Department of Education (DepEd) that will help them to enhance and develop their research capabilities through different programs created by the researcher. The output and future direction of the research is to continue upgrading of skills among teachers and school administrators through training's, seminars and workshops that should regularly conducted so that they will acquire the most up to date skills in research writing.

Key words: Theory, Practice, Research Culture, Assessment, Teachers.

1. INTRODUCTION

In Philippine education, the implementation of K to 12, research is integrated in every strands of the curriculum [1]. Even during the college, research is part of subject. While teaching the students, it is important to transmit knowledge in a very effective way [2]. Initiating and maintaining a culture of research may take years to develop and once established it requires

regular maintenance [3-4]. Plans for the research culture may include the teachers, school administrators, guidance counsellors and the stakeholders will join hand in hand to improve educational outcomes [5].

Studies suggest that the culture of research requires both institutional- and unit-based leaders. This helps in setting clear research goals and communicates effectively [6]. The goals must be accompanied by a well-defined protocol of research. Its success evaluation as well as any accompanying changes in compensation must be included. Administrators should also adjust job descriptions to include statements of research and teaching expectations [7]. Institutions wishing to develop a culture of research must allocate significant resources for faculty training and support. Faculty with minimal scholarship production experience will likely need training and personal support to become proficient [8]. Institutions may develop continuing education courses or support services in research practices, grant writing, and grant management. These programs could be housed in either a centralized or discipline-specific research centre [9]. Any developing research culture requires open and collaborative personal relationships among various faculty members. Congenial relationships among faculty members would support a successful faculty research mentoring initiative [10]. Such mentorships stand to be an important element of culture establishment. Personal collaboration amongst the faculty is also likely to foster research efforts. The plans for a culture of research should include consideration of student involvement [11].

Doctoral students who are exposed to research get the early practice during their coursework. Institutions may develop student research skills through research assistantships. Faculty mentors may also provide personalized research guidance.

Studies define that research culture is the structure that gives significance and that allows us to understand and evaluate the research activity [4]. In addition, an institution's culture of research is not simply a group of scholars who see the importance of research. A research culture provides support in which research is uniformly expected, produced discussed and valued.

The faculty at major research institutions have traditionally been expected to maintain scholarly activities, including conducting research and publishing scholarly works [1]. But it is no secret that, in recent decades, faculty at comprehensive and "teaching" universities have also come under pressure to research and publish. Additionally, the institutions and units that have traditionally emphasized effective faculty contact with students as a criterion for success are looking to develop cultures of research and increase faculty research production [12].

Research productivity is also important for the hiring and promotion of individual faculty members, even at traditional teaching institutions. A faculty survey on productivity in which respondents described their "production" in terms of teaching and research, but said that "what matters" is research and publications [9].

Some findings indicate that institutions with productive faculty share important characteristics on the levels of: On the first level; the institution; second level; Leadership; and third level; Individual faculty members. Success at any one level is not sufficient to account for successful research productivity. Institutions should aspire to develop relevant characteristics at all three levels [2].

Successful institutions choose from a variety of tactics to develop a culture of research and increase faculty research productivity. In this section, Research-centred institutions provide supports including: Effective Leadership and Clear Goals; Faculty Training and Support Programs; Research Centres; Recognition of Research Production; Encouragement of Faculty Collaboration; Balanced Teaching and Research Responsibilities; and Pay that is Commensurate with Expectations

In Bulihan Integrated National High School, most of the faculty has the potential in writing research proven that the faculty graduated from their master's degree. The need is proper guidance and coordination in conducting research and maintaining the culture of research in school [13]. Additionally, they have to be aware on the benefits of having research aside for the promotion, the Department of Education through the Basic Education Research Fund, allocate funds for accepted papers and publication [14].

The main concern of this study is to establish the culture of research in Bulihan Integrated National High School, Silang Cavite. Establishing a research program for teachers, school administrators, guidance counsellors and stakeholders will help to improve educational outcomes not only in Silang but the whole nation as well.

Action research questions

This study aimed to establish the culture of research in Bulihan Integrated National High School, Silang Cavite through the project (T2F)-Theory to Practice: Establishing the Culture of Research in Bulihan.

Specifically, it sought to answers the following questions:

[1] What is the status of research culture in BINHS for the past three (3) years in terms of:

[1.1] Number of research output presented in:

    [1.1.1]   School level

    [1.1.2]   District level

    [1.1.3]   Regional level

    [1.1.4]   National level

[1.2] Number of teachers had their research in:

    [1.2.1]   College

    [1.2.2]   Master's degree

    [1.2.3]   Doctorate degree

[1.3] School work plan in:

    [1.3.1]   School Improvement Plan (SIP)

    [1.3.2]   Continuous Improvement Plan (CIP)

    [1.3.3]   School-Based Management (SBM)

[2] How do the teachers assess the culture of research in terms of:

[2.1] Engaged in research

[2.2] Not engage in research

[3] What are the research programs for teachers, school administrators, guidance counselors and stakeholders maybe propose?

2. METHODS AND MATERIAL

2.1. Participants and/or other Sources of Data and Information

The participants of the study were the secondary teachers from Grade 7, 8, 9 and 10 in Bulihan National High School. The researcher utilizes stratified random sampling. The stratified random sampling method was used for two reasons: firstly, it certifies that the sample is representative not only of population but also particular sub-populations [15]. Secondly, stratified random sampling showcases a higher statistical precision than simple random sampling. It can also be used to select equal-sized samples from each of a number of subgroups, if subgroup comparisons are desired.

It was taken from population using stratified random sampling at 5% error of tolerance.

The sample size was determined with the use of Slovin's formula [16]:

Formula: $n = N / (1 + Ne^2)$

Where: n = sample population
N = total number of population
e^2 = margin of Error

Option	Range	Interpretation	Symbol
5	4.20-5.00	Strongly Agree	(SA)
4	3.40-4.19	Agree	(A)
3	2.60-3.39	Neutral	(N)
2	1.80-2.59	Disagree	(D)
1	1.00-1.79	Strongly Disagree	(SD)

Table 1. Population and Sample Size Secondary Teachers in Bulihan National High School (BNHS)

Grade Level	Population	Percentage	Sample
Grade 7	48	26	32
Grade 8	46	25	32
Grade 9	44	24	30
Grade 10	45	25	32
Total	183	100	n=126

As shown in table 1, the participants of the study is composed of thirty (32) Grade 7 teachers of Bulihan Integrated National High School which is twenty six (26) percent out of forty eight (48) total population, Thirty two (32) Grade 8 teachers of Bulihan Integrated National High School which is twenty five (25) percent out of forty six (46) total population; Thirty (30) Grade 9 teachers of B.N.H.S. which is twenty four (24) percent out of forty four (44) total population; and Thirty Two (32) Grade 10 teachers of B.I.N.H.S. which is twenty five (25) percent out of forty five (45) total population. A total of one hundred eighty three (183) populations which is one hundred (100) percent and one hundred twenty six (126) served as the total sample.

2.2. Data Gathering Methods/ Collection

The researcher sought permission from the School Administrator Mr. Willy D. Federico, Principal IV of Bulihan National High School, Silang, Cavite to conduct the study. Once permission was granted the researcher conducted an interview about the common reasons of teachers why they are not engage themselves in research. The researcher personally had an interview and gathers the needed data to the participants using survey questionnaire.

2.3. Ethical Issues

Inform consent of the participants is provided and permission has been secured. The approval of each participant is obtained to the extent of his or her capabilities and a prospective participant's refusal to participate in action research is always respected. To get the sample size, the researcher used Slovin's formula with 5% margin of error because he believes that not all the teachers will participate to the said study due to their busy schedule

2.4. Data Analysis

- Percentage. This was used as descriptive statistics or something that describes a part of the whole.
- Composite Mean- The researcher used composite mean to know the average results of the given data by the teachers who response in "ENGAGE IN RESEARCH" and " NOT ENGAGE IN RESEARCH".
- Ranking method used to rank the status of teachers who presented their research, had their research as requirement in their education and contribution to the school work plan.

3. DISCUSSION RESULTS AND REFLECTIONS

No. 1: Status of research culture in BINHS for the past three (3) years in terms of:

1.1 number of research output presented in:

    1.1.1 school level

    1.1.2 district level

    1.1.3 regional level

    1.1.4 national level

1.2 number of teachers had their research in:

    1.2.1 college

    1.2.2 master's degree

    1.2.3 doctorate degree

1.3 school work plan in:

    1.3.1 School Improvement Plan (SIP)

    1.3.2 Continuous Improvement Plan (CIP)

    1.3.3 School-Based Management (SBM)

Table 2. Number of Teachers by Level Presented Researches in Conferences or For a in BINHS

By Level	Number of Research Output Presented	Rank
International	1	3
National	2	2
Regional	1	3
Division	1	3
District	1	3
School	25	1
Total	31	

Based on the data, table two (2) shows that in School Level ranked one (1) with twenty five (25) output presented by the teachers in Bulihan Integrated National High School; followed by the rank two (2) wherein National Level has two (2) teachers presented in conferences while International, Regional, Division and District Level which ranked three (3) with one (1) teacher presented in every level.

All in all, there are thirty one (31) teachers presented their research output in different level. Evidently, some of teachers are engaged in research out of one hundred twenty (126) who participate to the study and well confident to present their researches in conferences.

It is supported by the article by Mirasol JM and Inoveja CJ (2017) stated that successful institutions provide significant support to faculty research efforts [17]. They can choose from a variety of tactics to develop a culture of research and increase faculty research productivity. It explained that the institutions need to maximize the potential of the teachers in research and give them opportunities to present their papers outside the institutions.

Table 3. Number of Teachers had Researches as Requirement in Education		
By Degree	Number of Research as Requirement	Rank
Doctorate	1	3
Masters	12	1
College	10	2
Total	23	

Table three (3) shows the summary of number of teachers had researches as requirement in Education. As shown in table three (3) that Master's Degree Teachers has twelve (12) Number of research conducted as their requirement in their respective institution which ranked one (1). Followed by the College Degree which ranked two (2) with ten (10) teachers had their research for final requirement in their respective discipline and lastly, Doctorate Degree with one (1) teacher had research which ranked three (3). It manifest that teachers have their knowledge and understanding on how to execute or conduct research. However, it needs the guidance from the expert to be able to provide accurate procedure/steps and results from their study.

In general, a total of twenty three (23) teachers had their research as final requirement in their respective discipline and institution.

Results could therefore be supported by the study of Shah (2011) that students will likely benefit from being immersed in a culture of research [18]. One study notes that graduate students have fewer difficulties completing dissertations when they have been introduced to research practices early on in their studies. In addition, faculty in a culture of research is regularly engaged in research projects. Any student research assistants they use stand to gain valuable experience and knowledge.

Table 4. Number of Teachers had Contribution in School Work Plan in Bulihan National High School (BNHS)

School Work Plan	Number of School Work	Rank
School Improvement Plan (SIP)	1	3
Continuous Improvement Plan (CIP)	2	2
School-Based Management (SBM)	3	1
Total	6	

Table four (4) shows Number of Teachers had Contribution in School Work Plan in Bulihan Integrated National High School (BINHS). Based on the data, it shows that School-Based Management (SBM) which ranked one (1) with three (3) teachers are proponents, followed by the Continuous Improvement Plan (CIP) with two (2) teachers had their contribution which ranked two (2) and lastly, School Improvement Plan (SIP) with one teacher as proponent which ranked three (3).

All in all, a total of six (6) teachers had their contribution for school work plan for the past three (3) years from 2013-2016.

These findings supported by Hanover Research (2014) [6] that successful institutions provide significant support to faculty research efforts. They can choose from a variety of tactics to develop a culture of research and increase faculty research productivity.

No. 2: Teachers assessment on the culture of research in terms of:

2.1. Engaged in research

2.2. Not engage in research

Table 5. Assessment of Culture of Research in terms of Engage in Research							
I will engage in research because…	SA	A	N	D	SD	WM	VI
	5	4	3	2	1		
	Frequency						
Research provides recognition of faculty with excellent research skills.	48	64	10	2	2	4.22	SA
Through research, it build strong personal and professional relationships among colleagues	42	68	42	2		4.19	A
It develops and maintains a culture of research that provides support of faculty research through Basic Education Research Fund (BERF).	26	66	34			3.94	A
Research maximizes my full potential in analysis and writing.	52	62	12			4.32	SA
It fosters a culture of research by facilitating attainment of research training as well as conferences and fora.	40	60	26			4.11	A
Establish institutional relationships with other learning institution, professional associations, and government bodies	38	60	28			4.08	A
Sponsoring faculty participation in scholarly conferences.	30	62	32	2		3.95	A
Reducing teacher course loads to give faculty more time for scholarly productivity.	34	50	40	2		3.92	A
The school administrator supports faculty members for scholarly activity.	22	48	46	6	4	3.62	A
Research provides more opportunities for job promotion in the current position.	52	56	16	2		4.25	SA
Through research, it improves educational outcomes of the institution.	54	56	14		2	4.27	SA
Overall Weighted Mean						4.08	**Agree**

The participants strongly agree that "Research maximizes my full potential in analysis and writing." as this indicator obtained the highest weighted mean of 4.32. The participants strongly agreed too that "Through research, it improves educational outcomes of the institution", "Research provides more opportunities for job promotion from current position", and "Research provides recognition of faculty with excellent research skills" with weighted means of 4.27, 4.25 and 4.22 respectively.

Relevant to the findings of the study conducted by Fairweather (2002)[9] research productivity is also important for the hiring and promotion of individual faculty members, even at traditional teaching institutions. Moreover on his notes a faculty survey on productivity in which respondents described their "production" in terms of teaching and research, but said that "what matters" is research and publications.

The participants agreed that "Through research, it build strong personal and professional relationships among colleagues", "It fosters a culture of research by facilitating attainment of research training as well as conferences and for a", "Establish institutional relationships with other learning institution, professional associations, and government bodies", "Sponsoring faculty participation in scholarly conferences", "It develops and maintains a culture of research that provides support of faculty research through Basic Education Research Fund (BERF)'", "Reducing teacher course loads to give faculty more time for scholarly productivity", "The school administrators supports faculty members for scholarly activity with weighted means of 4.19, 4.11, 4.08, 3.95, 3.94, 3.92 and 3.62 respectively. It is supported by Blan et al. (2014) [2] that

Table 6. Assessment of Culture of Research in terms of Not Engage in Research							
I will not engage in research because…	SA	A	N	D	SD	WM	VI
	5	4	3	2	1		
	Frequency						
Research is a difficult thing to do.	20	28	36	26	16	3.08	N
Research is time consuming.	20	34	30	30	12	3.16	N
Requires writing communication skills especially grammar	24	36	26	34	6	3.30	N
Research is uninteresting activity.	6	12	18	54	36	2.19	D
The institutions do not support scholarly activities.	14	20	60	24	8	3.06	N
Research requires critical and analytic skills.	28	36	22	30	10	3.33	N
It requires constructing survey questionnaire that will appropriate to the study	26	38	24	32	6	3.37	N
Research requires coordination to the participants and higher authority to conduct study	28	32	30	30	6	3.37	N
It requires ethical standard in writing especially in text and reference citation	24	46	24	26	6	3.44	A
There is no money in research.	12	14	36	38	26	2.59	D
Overall Weighted Mean						3.09	**Neutral**

culture of research is supported by faculty interaction and research collaboration. Bland, et al. also noted that successful researchers have a network of like-minded scholars with whom to discuss their projects. They go on to note that this network does not need to be within a given faculty member's unit or institution. Institutions support the development of faculty networks through activities including: firstly, sponsoring faculty participation in scholarly conferences; secondly, hosting conferences and symposia; and lastly, establishing institutional relationships with other universities, professional associations, and government bodies. It also manifests that faculty doing research work need to reduce his/her teaching loads and it will give special assignment or activities in relation to research.

As a whole, the participants are agree to all the indicators on assessment of culture of research in terms of "I will engage in research" with overall weighted mean of 4.08 with a verbal interpretation of agree.

Most of the items in this table obtained weighted means verbally interpreted as Neutral and the rest are verbally interpreted as Disagree. The participants agree that "It requires ethical standard in writing especially in text and reference citation" which obtained the highest weighted mean of 3.44. The participants interpret neutral that" It requires constructing survey questionnaire that will appropriate to the study", "Research requires coordination to the participants and higher authority to conduct study", with a weighted mean of 3.37 and 3.37 respectively. Followed by "Research requires critical and analytic skills", "Requires writing

communication skills especially grammar", "Research is time consuming", and "Research is a difficult thing to do" with weighted means of 3.33, 3.30, 3.16 and 3.08 respectively and interpret as neutral too.

The participants disagree that "There is no money in research" and "Research is uninteresting activity" with a weighted means of 2.59 and 2.16.

Relevant to the study conducted of Clemena & Almonte (N. Y.) that many expressed the difficulty of getting research funding and support for paper presentations especially for international conferences [19]. Moreover, interviews conducted indicated that many faculty members are generally not comfortable doing research. Some describe it as cumbersome, a difficult task, and a constant exposure to scrutiny and pressure. Although many of them have a graduate degree, they believe that they do not have sufficient training in research and therefore lack confidence to pursue further research. They consider their master's thesis as their only research output so far.

As a whole, the participants are neutral to all the indicators on assessment of culture of research in terms of "I will not engage in research" with overall weighted mean of 3.09 with a verbal interpretation of neutral.

3.1. Research development programs for teachers, school administrators, guidance counselors and stakeholders maybe propose:

Research programs that may be proposed composed of four (4) to enhance, motivate and develop the skills of teachers in research writing. Objectives were set together with the

key result areas. Then target areas are identified to measure if the objectives are realized. After which, strategies were planned wherein, the activities, resources, program duration were identified. After completing the results, a research program was made.

3.2. Action Plan

Project T2F- Theory to Practice: Establishing the Culture of Research in Bulihan Integrated National High School, Silang, Cavite Division of Cavite Province – Annexure 2 and 3.

4. CONCLUSION

It was concluded researches presented by the teachers with a total of thirty one (31), research as requirement in their study with twenty six (26) and the contribution in school work plan with six (6) teachers serve as proponents manifests the capacity of teachers to conduct and present research in different research conferences and research for a. As they have experienced, what they need is to boost their morale and erase the connotation that research is difficult thing to do wherein fact they already had research.

The participants are agree to all the indicators on assessment of culture of research in terms of "I will engage in research" with overall weighted mean of 4.08 with a verbal interpretation of agree. And the participants are neutral to all the indicators on assessment of culture of research in terms of "I will not engage in research" with overall weighted mean of 3.09 with a verbal interpretation of neutral. It was concluded that the culture of research is still in the minds of

teachers, the passion of writing and investigation to a certain problem.

Research programs that may be propose composed of four (4) to enhance, motivate and develop the skills of teachers in research writing. Objectives were set together with the key result areas. Then target areas are identified to measure if the objectives are realized. After which, strategies were planned wherein, the activities, resources, program duration were identified. After completing the program, a research program was made.

Recommendation

In the light of the findings and conclusions of the study, the following recommendations are suggested:

1. A research programs for teachers and school administrators with the help of the stakeholders should be implemented to engage them in scholarly activities.
2. Mentoring is seen as essential for faculty involvement like teachers who finished their master's degree and doctorate degree who undergo thesis and dissertation writing for the course requirement.
3. Invite and involve stakeholders in conducting research activity for the welfare of the children.
4. The continous upgrading of skills among teachers through training's, seminars and workshops should regularly conducted so that they will acquire the most up to date skills in research writing.
5. Establishing research center for every department/discipline to strengthen research culture in the institution.

Plans for Dissemination and Advocacy

After proposal and data gathering and presentation of the Action Research (AR) the researchers is willing to disseminate the results of the conducted research for further study and implementation of the said program T2F. Teachers should be encouraged to conduct their own study on their respective classes through utilizing the said program.

6. ACKNOWLEDGEMENT

NA

7. CONFLICT OF INTEREST

NA

8. SOURCE/S OF FUNDING

No source of funding

9. REFERENCES

1. Blackburn, R. T., et al. "Faculty at Work: Focus on Research, Scholarship, and Service." Research in Higher Education, *32***(4)**, 1991. p. 385.

2. Bland, C., et al. "A Theoretical, Practical, Predictive Model of Faculty and Department Research

3. Productivity (2005)" Academic Medicine, *80***(3)**. p. 225-237.

4. Cheetham, Andrew. "Growing a Research Culture." Address to the Academic Senate – University of Western Sydney, May, 2007. p. 5.

5. Dundar, H., & Lewis, D. R. "Determinants of Research Productivity in Higher Education." Research in Higher Education, *39***(6),** 1998. p. 608.

6. Hanover Research (2014). Building a Culture of Research. Recommended Practices. Academy Administration Practice.

7. Evans, Linda. "Developing Research Cultures and Researchers in HE; the Role of Leadership."

8. Presentation at the Annual Conference of the Society for Research into Higher Education, December 11th 2007. p. 1.

9. Fairweather, J. "The Mythologies of Faculty Productivity: Implications for Institutional Policy and Decision Making." The Journal of Higher Education, *73***(1)**, 2002. p. 31-32.

10. Hammond, S., Madsen, S., and Fenton, J. "Strategically Increasing Faculty Productivity." Academic Exchange Quarterly, *8***(4),** 2004.

11. Lee, K. et al. "Evaluation of Research Training and Productivity Among Junior Pharmacy Practice Faculty in the United States." Journal of Pharmacy Practice. December 2010.

12. Youn, T. I. K., and Price, T. M. "Learning from the Experience of Others: The Evolution of Faculty Tenure and Promotion Rules in Comprehensive Institutions. Journal of Higher Education, *80***(2)**, 2009. p. 205.

13. Marchant, Teresa. "Developing Research Culture – Overcoming Regional and Historical Obstacles." Chapter Five in Professional Doctorate Research in Australia: Commentary and Case Studies from Business, Education and Indigenous Studies. Lismore: Southern Cross University Press. p. 6.

14. McGill, M., and Settle, A. "Identifying Effects of Institutional Resources and Support on Computing Faculty Research Productivity, Tenure, and Promotion." International Journal of Doctoral Studies, 7, 2012.p. 3.

15. Olken, F. (1993). Random sampling from databases (Doctoral dissertation, University of California, Berkeley).

16. Slovin, E. (1960). Slovin's Formula for Sampling Technique.[Paper reference 1].

17. Mirasol JM and Inoveja CJ (2017). Building a Research Culture in a Higher Education Institution. J-HERD Vol.2. Issue 1. 201

18. Shah, S. K., Nodell, B., Montano, S. M., Behrens, C., & Zunt, J. R. (2011). Clinical research and global health: mentoring the next generation of health care students. Global public health, 6(3), 234-246.

19. Salazar-Clemeña, R. M., & Almonte-Acosta, S. A. (2007). Developing research culture in Philippine higher education institutions: Perspectives of university faculty. Paper presented at the UNESCO Forum on Higher Education, Research and Knowledge, Hangzhou, China