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Research needs of students

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Abstract

A safe and secure school is one of the basis of Research culture in Higher Education Institutions is becoming established already across the globe. Several researches were made to identify the research needs HEIs to strengthen research more. Students are the main clients of schools and they carry the name of the school even after they graduate. Equipping the students with research skills is the a plus for the school where they come from.

Research in Higher Education Institutions is vital to ensure quality education and services. The first step in research is performing a needs analysis for program implementation. Students need to possess research skills that will help them in their undergraduate theses and to land a job in the future.

Pre-writing skills and editing skills are the most needed areas of focus in the student research development program as

perceived by the student respondents. This is followed by writing skills.

The different student research development program skills have each area that should be focused on. For pre-writing skills, it is analyzing the purpose of the study. In terms of library skills, the most needed area is searching for thesis, dissertations and other sources while for note-taking skills, it is synthesizing. For editing skills, it is avoiding plagiarism that needs to be focused on. In presentation and publication process, the most needed area is preparing a paper for oral presentation.

This research made use of frequency and percentage for the profile of the respondents. Weighted mean and ranking were used in analyzing the data.

Keywords: students, editing skills, strengthen, research

1. Introduction

1.1 Statement of the Problem

This research aims to identify the research needs of the students in an aeronautical school as a basis for research development programs. Specifically, it aims to answer the following:

1. What is the perception of the student respondents on the different areas for employee research development program in terms of:

- a. Pre-writing skills;
- b. Library Skills;
- c. Note-taking skills;
- d. Writing skills;
- e. Editing skills;
- f. Presentation and publication process?

2. What are the most needed areas of the students in terms of research skills?

3. What can be recommended and institutionalized to address the research needs of the students?

1.2 Background of the Study

The aeronautical school is establishing its research culture through the faculty, non-teaching staff, and student researches. Various topics, either school-wide or community-based researches, are the focus of the researches. Recently, the school has gained its Level 2 status by the Philippine Association Colleges and Universities Commission on Accreditation (PACUCOA) in the BS Aeronautical Engineering and BS Tourism Management Programs. In 2019, the school is aiming for a Level 3 status. One of PACUCOA's objectives is to assess the research capabilities through the outputs by the faculty, students, and non-teaching staff.

It is evident that both institutions, PACUCOA and the aeronautical school, are assuring quality education through research.

In 2017, school's Research Department started to establish a research culture in the institution initially with the faculty and students and later on included the non-teaching staff. Since then, several research seminars and workshops were attended by faculty members, students, and non-teaching staff as a promotion of research culture. Research colloquiums with various participants within the school were also held. Most of the student participants in colloquiums come from the Senior High School, BS Aeronautical Engineering and BS Tourism Management departments.

The aeronautical school aims for research sustainability in faculty, students, and non-teaching staff. This research is focused on addressing the research needs of the students as a basis for student research development programs such as trainings, workshops, colloquiums, and seminars. Giving the students room for development will not only benefit themselves but the school as well.

1.3 Review of Related Literature

A safe and secure school is one of the basis of Research culture in Higher Education Institutions is becoming established already across the globe. Several researches were made to identify the research needs HEIs to strengthen research more. Students are the main clients of schools and they carry the name of the school even after they graduate. Equipping the students with research skills is the a plus for the school where they come from.

Research skills are referred to as "the ability to search for, locate, extract, organize, evaluate and use or present information that is relevant to a particular topic" (NUI Galway, 2018). Research skills are important in any business because these skills are put into use in report writing, keeping an eye on their competitors, developing new products, and identifying what clients want; all of which are needed by employers. Some research skills that employers look for are report writing, data collection, analysis of information, finding information off the resources, critical thinking, planning and scheduling, interviewing, and critical analysis. (TheBigChoice, n.d.). When students apply for jobs when they graduate, it will be easier for them to cope and be hired if they are well-equipped with such skills. Aside from equipping students with research skills, they could also be trained to conduct research and to present their papers in colloquiums. This can be done through student research development programs such as seminars, workshops, and colloquiums.

Usually, students undergo research before they graduate through writing their undergraduate thesis. For some, it would be the first time for them to conduct such research. It would be best to know the needs of students in research while they are in their freshman year for the instructors and management to provide such needs before they conduct their researches.

A survey by Library Journal showed results that only 30% of those who enter college possess the research skills needed to conduct a college-level research. Librarians who were also surveyed addressed the following challenges that freshmen students are facing: inability to evaluate sources for reliability, inability to establish a research topic and design objectives, the inability to properly cite sources, overconfidence/apathy/short attention span, and an

overreliance on Google. Students may be able to find something off the internet but somehow lack the skills to evaluate and integrate their sources and to synthesize the findings (Williams, 2017) ^[8].

The first step in creating strategies to teach research skills is through assessment. It is recommended that students assess themselves to be able to identify the skills that they lack (Carnegie Mellon University, n.d.).

Research is vital because its purpose is to impose action and to contribute knowledge for development. A needs assessment is done to determine the gap between the institution's needs and how or where they want it to be (NC State, 2017). Through Training Needs Assessment (TNA), the gaps identified can help improve research skills that the students need which will benefit both the school and the students themselves. This provides the information on the training and skills development one may need to progress to whatever career one chooses. It can greatly help in formulating a professional development plan (UCC, n.d.).

In a research entitled Research Needs and Learning Format Preferences of Graduate Students at a Large Public University: An Explanatory Study, findings showed that the highest rated skills by students in their self-assessment were citing sources in appropriate style, identify previously published research on the topic and accessing the full text of a previously published research. In the same research, respondents pointed out that they preferred to learn these skills online (Bussell, Hagman, & Guder, 2017) ^[1].

1.4 Conceptual Framework



Fig 1: McGhee and Thayer's Three-Level Analysis

McGhee and Thayer (1961) stated that "training needs come from underdeveloped skills, insufficient knowledge or inappropriate work attitudes (Ferreira & Abad, 2013). Their model suggests conducting a TNA in three levels: organizational, operational, and individual (ChangeFactory, 2014). The organization level allows one to view the organization's performance which can also highlight problems in performance. In the Operational level, knowledge, skills, and abilities that are needed to perform certain tasks should be looked at. The last level, the individual, allows analysis on how well the team performs the

tasks (JSW Training & Community Services, 2015). McGhee and Thayer’s model guides the researchers in completing the TNA. McGhee and Thayer’s Three-Level Analysis is used to identify the training needs of an organization. In this research context, organization may be referred to as students. The organization level allows one to view the student performance in research and highlight problems in research. In the Operational level, knowledge, skills, and abilities that are needed to for research are looked at. The last level, the individual, allows analysis on how well the students conduct their researches.

2. Methodology

2.1 Research Design

This study made use of the descriptive method of research wherein survey questionnaire was used to gather the data needed from the student respondents. The study was based on the following areas: pre-writing skills, library skills, note-taking skills, writing skills, editing skills and presentation and publication process which are all under the aeronautical school’s Research Department. The respondents were first year students coming from the nine programs offered by the institution namely: BS Aeronautical Engineering, BS Air Transportation, BS Aircraft Maintenance Technology, BS Avionics Technology, Aircraft Technician Course, BS Airline Business Administration, BS Tourism Management, BS Hotel and Restaurant Management and BS Industrial Engineering.

2.2 Respondents

Profile of respondents in terms of program

Table 1: Frequency and Percent Distribution of the Respondents in Terms of Program

Program	Frequency	Percent
BS Aeronautical Engineering	82	27.30
BS Air Transportation	56	18.70
BS Aircraft Maintenance Technology	30	10.00
BS Avionics Technology	44	14.70
Aircraft Technician Course	6	2.00
BS Airline Business Administration	13	4.33
BS Tourism Management	59	19.70
BS Hotel and Restaurant Management	2	0.67
BS Industrial Engineering	8	2.67
Total	300	100

Three hundred student respondents were given survey questionnaires. All respondents are freshmen students of the aeronautical school from different departments. Majority of the respondents are from the BS Aeronautical Engineering program with 82 student respondents followed by the BS Tourism Management program with 59 student respondents.

2.3. Instrumentation

The survey questionnaire is a researcher-made questionnaire which was tested and validated. The instrument is divided into three (3) major parts:

Part 1: Respondent’s profile
For students

- a. Program
- b. Year level

Part 2: Areas for student research development program

- a. Pre-writing skills
- b. Library skills
- c. Note-taking skills
- d. Writing skills
- e. Editing skills
- f. Presentation and publication process

Part 3: Comments/Suggestions/Recommendations

2.4 Statistical Treatment of Data

The data gathered in this study were statistically treated using the statistical tools such as frequency and percentage, weighted mean and ranking.

The 3-point scale was used with the values assigned to each of the perceived rating. The interpretation and corresponding scale value and range of the weighted mean is used to assess the different items.

3. Results and Analysis

3.1. Findings

1. The perception of the student respondents on the different areas for student research development program

Table 1: Perception of the Student Respondents on the Different Areas of Student Research Development Program

Areas for Student Research Development Program	Mean	Remark	Rank
Pre-writing Skills	2.66	Much Needed	1
Library Skills	2.58	Much Needed	2
Note-taking Skills	2.53	Much Needed	5
Writing Skills	2.55	Much Needed	3
Editing Skills	2.66	Much Needed	1
Presentation an Publication Process	2.54	Much Needed	4
Average	2.59	Much Needed	

Based on the perception of the student respondents, the most needed skills are pre-writing and editing skills with 2.66 weighted mean. The least needed skill is note-taking skill with 2.53 weighted mean.

2. The most needed areas of the students in terms of research skills

The most needed area of student research development program in terms of pre-writing skills is analyzing the purpose of the study with having the highest weighted mean of 2.76. The lowest weighted mean is from the area analyzing the intended audience with 2.59 weighted mean.

In terms of library skills, the most needed area of student research development program is searching the thesis, dissertations and other sources with 2.68 weighted mean. The least needed area is using the school’s library sources with 2.44 weighted mean.

Synthesizing, having 2.59 weighted mean is the most needed area of student research development program under the note-taking skills. On the other hand, the least needed area is quoting with 2.40 weighted mean.

The most needed area of student research development program under the writing skills is results having 2.73 as its weighted mean. The least needed area is appendices with 2.33 weighted mean.

For editing skills, the most needed area of student research

development program is avoiding plagiarism with the highest weighted mean on 2.78. The lowest weighted mean is from the areas of connecting words to achieve syntax and using transition words and phrases with 2.54.

The most needed area of student research development program under the presentation and publication process is application for patent with 2.66 weighted mean. The least needed areas are preparing a paper for oral presentation and presenting a poster paper with lowest weighted mean of 2.36.

4. Discussion

4.1 Conclusion

Based on the analysis of findings, the following were concluded:

Pre-writing skills and editing skills are the most needed areas of focus in the student research development program as perceived by the student respondents. This is followed by writing skills.

The different student research development program skills have each area that should be focused on. For pre-writing skills, it is analyzing the purpose of the study. In terms of library skills, the most needed area is searching for thesis, dissertations and other sources while for note-taking skills, it is synthesizing. For editing skills, it is avoiding plagiarism that needs to be focused on. In presentation and publication process, the most needed area is preparing a paper for oral presentation.

4.2 Recommendations

Based on the given conclusions, the following were recommended:

1. Students of aeronautical school should be motivated to be interested in research writing. They should enhance their curiosity for them to make use of the library. They should focus more on their note-taking skills and on their presentation skills.
2. Instructors particularly those who teach subjects with research should guide their students when conducting institutional researches and thesis. Lectures should focus more on pre-writing and editing skills.
3. The school's Management should acquire a program such as Turnitin and Unicheck to assist and help students in avoiding plagiarism when writing their research papers.

Future researchers may use this study as a guide in writing a more meaningful paper that may include significant relationship and significant difference to understand more the research needs of students.

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