

A SCRUTINY OF K TO 12 STRANDS AND THE LEARNING PROGRAM VIS-A- VIS ITS ACADEMIC PERFORMANCE

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ABSTRACT

The aim of this study was to examine the different K to 12 STRANDS in terms of student academic performance and the educational learning program, and to assess whether the academic performance of grade 12 and first year college students is significantly related. This is also to find out if one of the strands in the educational curriculum of learning has a major difference. The academic competencies in the various strands serve the educational program of learning.

There were one hundred and eighty (180) first-year students examined at the College of Education during the academic year 2018-2019. The respondents in this sample are the first batches of Bachelor of Secondary Education (BSEd) and Bachelor of Elementary Education (BEEd) and also the first cohorts of the K to 12 curriculum programs. In this study, there are 100 BSEd and 80 BEEd students.

Data were analyzed using the central tendency measure, the correlation measure and the test of the difference between the two means of academic performance of the respondents. The following variables were considered in order to determine the entry competencies of the respondents: General Weighted Average in Grade 12, Entrance Examination and Interview.

The mean value of the competence level of the participants in the core subjects after the academic year is 91.41, which is defined as an outstanding achievement. Although the mean value is 86.37 in the general education subjects, with a very satisfactory value in the learning growth and achievement of the respondents. It was inferred from the results that there was a substantial connection between the academic performance of the respondents from grade 12 and first year college. The three (3) strands of STEM, GAS and HUMSS had a statistically important output gap at the 5 percent significance stage in the two degree programs. All the estimated values for t are greater than the critical value of 1.96, so all the variables have a meaningful relationship.

KEYWORDS: *strands, academic performance, entry qualification, learning program*

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INTRODUCTION

The world is evolving so rapidly that schools and universities should keep pace with the tempo of cultural shifts and technological development in order to cope with new developments. As betroth by Bangayan- Manera (2019), schools must have the best motivational proofs in order for the students to exemplify in their academic career[3]. In the educational and social revolution, the schools of today should engage. The curriculum in Philippine schools today must therefore be tailored to the rapid changes in society and the new obligations for the new Filipino breed[1]. Academia (institutions), government, and industry are the three most important sectors of society that provide direct input to curriculum improvement (both public and private companies) Some government institutions, such as the Higher Education Commission (CHED) and the Department of Education (DepEd), are directly involved in the upgrading of learning institutions' curricular programs. The activities of schools, colleges and universities are supervised and managed

by them. For example, engineering programs have been driven by a set of government policies, laws, and programs in the past.

"The DEPED Vision; "In a child-centered and value-driven teaching-learning environment, we help the Filipino child to discover his/her full potential and thus encourage him/her to build his/her own destiny in the global community. We train him/her to become a responsible citizen and an enlightened leader who is proud to be a Filipino[2] and loves his/her country.

The goal is to provide affordable, equitably accessible basic education for all and lay the foundations for lifelong learning and self-actualization required at the local, national and global level for successful citizenship. DEPED's ultimate objective is to develop holistically integrated Filipinos with 21st century skills. With this, each student in SHS can choose between the three (3) tracks in the K to 12 curriculum: Academic; Technical-Vocational-Livelihood; and Sports and Arts. 3 strands are included in the academic track: 1) Business, Accountancy, Management (BAM); 2) Humanities, Education, Social Sciences, and 3)

Mathematics, Science, Technology, Engineering, General Academic Strand (GAS), Science; Engineering and Mathematics Technology (STEM); Humanities and Social Sciences (HUMSS) and Technology and Vocational TEchVoc[3]. The strands are as follows.

For learners who are still unsure about which direction to take, the General Academic Strand is best. GAS offers students a chance to consider their choices. In addition, education-Bachelor of Secondary Education (BSEd) and Bachelor of Elementary Education-is a course you can follow from this strand (BEEd). Bachelor of Arts for the Humanities and Social Sciences. The courses you can take in STEM include BSCS, BSES, BSIT, BSC Civil Engineering and others. Strand-Agribusiness (BSA), BSHRM and others in Accountancy, Business and Management (ABM)[4]. The admission of senior high school graduates to higher institutions is one of the major concerns of the Philippine education system, especially the Higher Education Commission. The K to 12 curriculum originally stipulates that each strand has its corresponding course to take. There is, however, a twist in the admission to higher education for senior high school. The educational system decided that, regardless of the strands he has taken from grade 12[4,5], a student can enroll in any course he wants.

Subject: POLICY ON THE ADMISSION OF SENIOR HIGH SCHOOL GRADUATES TO THE HIGHER EDUCATION INSTITUTIONS EFFECTIVE ACADEMIC YEAR 2018-2019. In CHED Memorandum Order (CMO) No. 1 Series of 2017. In accordance with the relevant provisions of Republic Act No. 7722, otherwise referred to as the 1994 Higher Education Act, and pursuant to Commission en banc Resolution No. 944-2017 dated 18 December 2017. The following policy is therefore adopted and enacted by the Commission: all graduates of Grade 12 from the 2017-2018 academic year are eligible to enter college irrespective of the path or strand taken in the Senior High School[6].

Therefore, the Commission adopts and enacts the following policy: all graduates of Grade 12 from the academic year 2017-2018 are entitled to enter college regardless of the direction or strand taken by the Senior High School[6].

The College of Education is charged with developing skilled educators and educating future teachers who are knowledgeable, loving, confident, dedicated and who will contribute to community growth through education by increasing the qualifications of educators equipped with advanced training and educational technologies for academic and professional development Fitted with advanced preparation and educational technologies as well as

testing and extension capabilities, and through quality and well-rounded pre-service training in both academic and vocational fields for diverse learning populations, planning and developing highly skilled basic education teachers and qualified technologists[8].

The goal of the Bachelor of Secondary Education (BSEd) and Bachelor of Elementary Education (BEEd) programs is to develop highly motivated and qualified educators specializing in secondary and elementary education content and pedagogy. The organization developed an entrance qualification for the incoming freshmen to meet the aims of the programs. The choice of students is one of the qualification criteria. Students are admitted from the various strands, entrance test scores and interview[8] in terms of academic success in grade 12.

Continuity and creativity anchored on a relevant curriculum is central to the realization of the purpose of an organization. Changes in methods, in the content of the course, in teaching methodologies and expectations are well known as sensitive, challenging and often impossible, so much so that the embrace of the status quo is omnipresent. If a strategy is well conceived and based on rational ideas and objectives, there is a great conviction that there is little that can keep it from being initiated. However, a number of elaborately designed inventions and curriculum improvements have floundered on the threshold of the bureaucratic organization[1, 9], it can also be noted.

Research Questions

The purpose of this study was to examine various STRANDS in terms of student academic success and the teacher education learning program.

It tried, explicitly, to answer the following:

1. What are the students' entry competencies in
 - a. Grade 12
 - b. Entrance test,
 - c. Interview
2. What is the level of competency of students in the following areas of learning prior to the academic year:
 - a. Core Subjects
 - b. Specialized and Applied topics
3. What is the level of competency of students in First Year College's learning areas after the academic year?
 - a. Core subjects
 - b. Subjects of General Education
4. There is a significant relationship between the academic performance of grade 12 and grade 12 students.
 - a. College for the first year.
 - b. Entrance Examination

- c. Interview
5. There is a significant relationship between the academic performance of first year college students and.
- Entrance Examination
 - Interview
6. Which of the following STRANDS makes a significant difference in student academic performance in the education program?
- STEM ONLY
 - THE GAS
 - HUMSSS
 - TVL

REVIEW OF RELATED LITERATURE

According to Wikipedia (2013), academic success is the product of education; it is the degree to which your educational objectives have been accomplished by a student, teacher or institution.

Educational Research and Engineering Office Solutions Assessment and Adaptation Unit (SEAMO INNOTECH). June 2016. The Educational Research and Advancement Office of the Solutions Assessment and Adaptation Unit (SEAMO INNOTECH). There seems to be a possible mismatch between some of the specializations of the SHS, particularly agriculture or crop production. There is not much potential in crop production to help SHS students gain employment, as the area's agricultural sector appears to have a decreasing demand for jobs[10,11]. The Biliran, P. Each of the four academic strands (2018) has its own set of difficulties. So it is best to choose the one that most matches your strengths. Bear in mind that there is no superior or inferior educational system. In a learning environment, such hierarchies are not required. You should only concentrate on your chosen strand and do your best to succeed in it! [14,13]. According to Sarmiento & Orale (2016), the following conclusions are drawn on the basis of the results of their research:

- The results of the survey indicate that there are 13 students studying engineering, 16 for other courses, and 10 for IT. The results of the survey indicate that because of their preference, there are 24 students who have decided to study, 6 for parental participation, 3 for no option, and only 1 for financial status. In Harper's report, it was concluded that STEM majors participating in the NBMCAS designated unique programs that introduced them to college and led to their preparation for math and science courses for the first year[12]. They also commented on how peers of the same race played a key role in supporting their sense of belonging in STEM courses. The Aguado & Laguador, et. Al (2015) said that in the near future,

a person has his own taste and conditions in selecting a university or course[16].

Based on the outcome of the report, the researcher concludes in the Jenith B. Barde study (March 2019), "Satisfaction with the K-12 Curriculum among Grade 12 Senior High School Students in Asian Computer Studies," that the Grade 12 Senior High School student of the Asian Institute of Computer Studies is satisfied with the K-12 curriculum as it offers a higher standard of education. Allow graduates to join the force right after high school, and prepare those who want to go on to higher education accordingly, advancing them to be competitive globally. She suggested, "To be proud of the chosen respondents as well as the AICS students that our nation already has this type of program because this is for us students of this said curriculum to be ready for our chosen career in the future, we must be grateful because we already have this." This is for us to experience what we face as our stepping stone to our future during our college life[9].

Camarinas, A.R, and others, et al (October 2017). They proposed the following:(1) Further research shall be undertaken in order to explore other potential advantages for the students of the K-12 program. 2) Schools should sustain and improve their K-12 readiness by embracing more creative patterns, upgrading their facilities and planning for globalization. (3) Teachers can also sustain and further improve their readiness to adopt K-12 by attending more in-service training and K-12-related seminars[18].

The STEM Problem. STEM, the acronym for science, technology, engineering, and mathematics, is loved by all, and it sits in every call to boost U.S. competitiveness. But there are several different ways of thinking and behaving concealed inside "science," and unless we defend them separately, the entire scientific enterprise could be at risk[2].

In his recommendations and conclusions, Charles, Gbollie (2016): In general, this study concludes that the performance of Liberian junior and senior high students is moderate in line with prevailing learning conditions, and there is a clear need for a paradigm shift to provide all Liberian children with the standard of education that is fervently deserved and desired.

Therefore, a range of suggestions and consequences are provided for action and future study. Teachers need to concentrate keen attention on encouraging their students to encourage their self-efficacy, always urging students to believe in their abilities to do well, based on the important role of motivation recognized in this report, and they (teachers) must also believe in their students. The implication is that it will impact their lifelong learning arrangements and their ability

to excel in different difficult life circumstances if learners are not encouraged to encourage them to believe in themselves and ask for support. Teachers need to be qualified to integrate the nature of motivational values and the need for learners during instruction to use all sorts of strategies[11]

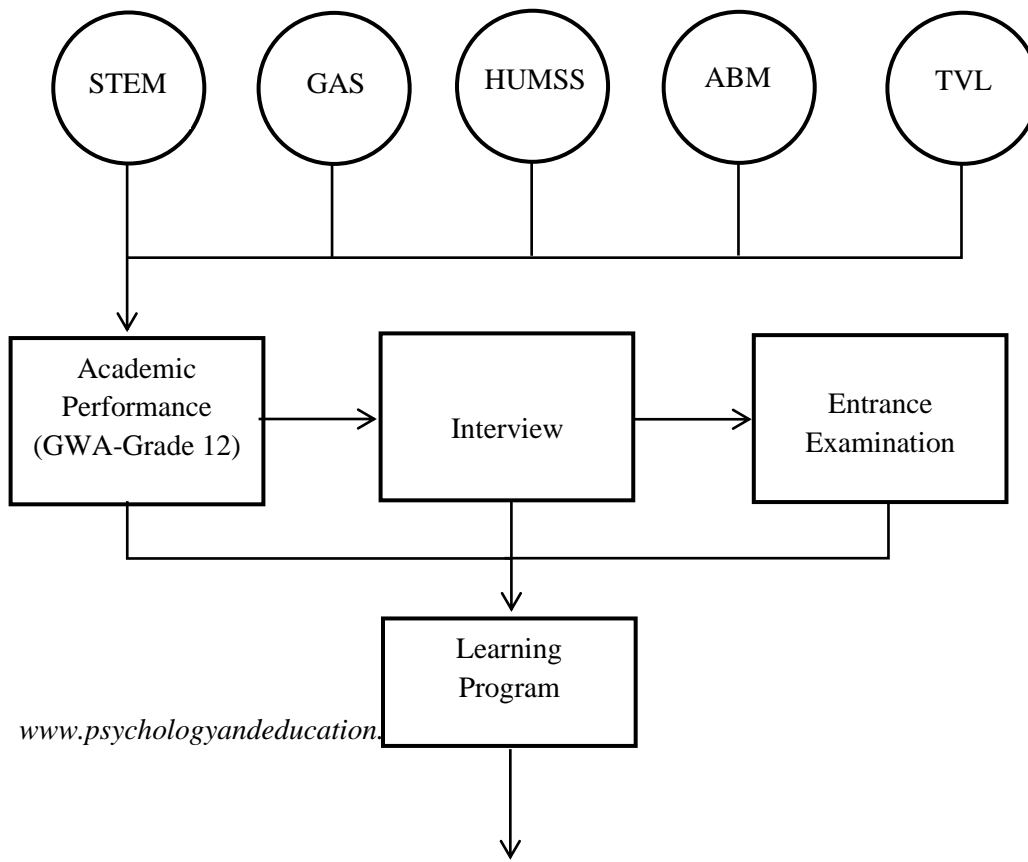
In addition, teachers should help their students understand clearly the need for them to build up values such as task worth, learning and success self-efficacy, intrinsic target orientation, and learning beliefs management, as well as the use of critical thinking, effort regulation, and peer control, and help seek strategies to develop their learning process.

Focus must not only be put on grades or awards as the safest path to academic achievement, but other student abilities and strengths must also be considered. Students must be reminded constantly to study for their own benefit and the good of society, because there is no need for higher grades for bribery and other academic malpractice. In schools, the elimination of the fire list is recommended. Through the Ministry of Education and partners, the Liberian government must step up efforts to alleviate different problems facing students, including complaints about life challenges (poverty), access, inadequate learning facilities and school abuse. Recreation, food for students, transportation, continuous school improvement, and It is important to assertively endorse strict legislation against abuse. Parents must refrain from using children as breadwinners; enforcement is recommended by the national government to compel In addition, parents must restrict the workloads provided to children of school age and allow them ample time to learn their lessons.

Both educated and uneducated parents must make efforts to make time to promote the learning of their children at home[2] . Finally, despite budgetary constraints, the Liberian government must strive annually to increase its education budget to allow the Ministry of Education to transcend from just paying central and decentralized education workers to funding substantive education programs

Sharmaine Joy M Fajardo, et.al. A Comparative Review on the Mathematical Achievement of Manila Tytana Colleges S.Y 2016-2017 STEM and ABM Students using the Mann-Whitney U Exam. This research concludes that the students of ABM and STEM do not vary substantially in terms of their mathematical achievement.

The Math Achievement association of students and their strands. Results indicate, for example, in a study conducted by Wang (2012), that high school math achievement, along with other variables, affects the intent of students to major in STEM fields, which in turn affects entry into STEM majors. The researchers therefore conclude that students in STEM initially have higher achievement in mathematics. This is, in fact, backed by one report. The results showed that even students in both non-STEM and STEM fields conclude that STEM students in STEM subjects, such as Math and Science, would not yield the same scores as students in other fields taking the same subjects[6]. In addition, if one does not have the minimum required math achievement, the student will most likely leave the STEM field. Theoretical factors for students to continue or leave a STEM area of study, such as early exposure to and competence in math and science, have been highlighted by researchers.



Research Hypotheses

The following research hypotheses were drawn and tested with the stated conceptual framework.

1. The students 'entry competencies in
 - a. Grade 12
 - b. Entrance test
 - c. Interview
 That's high.
2. The level of competency of students after the academic year in the following areas of learning:
 - a. Languages Inside
 - b. Mathematics & Science
 - c. The Sciences & Arts
 - d. Education for Technology & Livelihood
 It is mildly elevated
3. There is a major link between the academic performance of grade 12 and grade 12 students.
 - a. School for the first year.
 - b. Entrance Test Examination
 - c. Interview
4. There is an important correlation in the academic performance of first-year college students and
 - a. Entrance Review Examination
 - b. Interview
5. One of the following STRANDS has a major difference in student academic achievement in the educational education program.

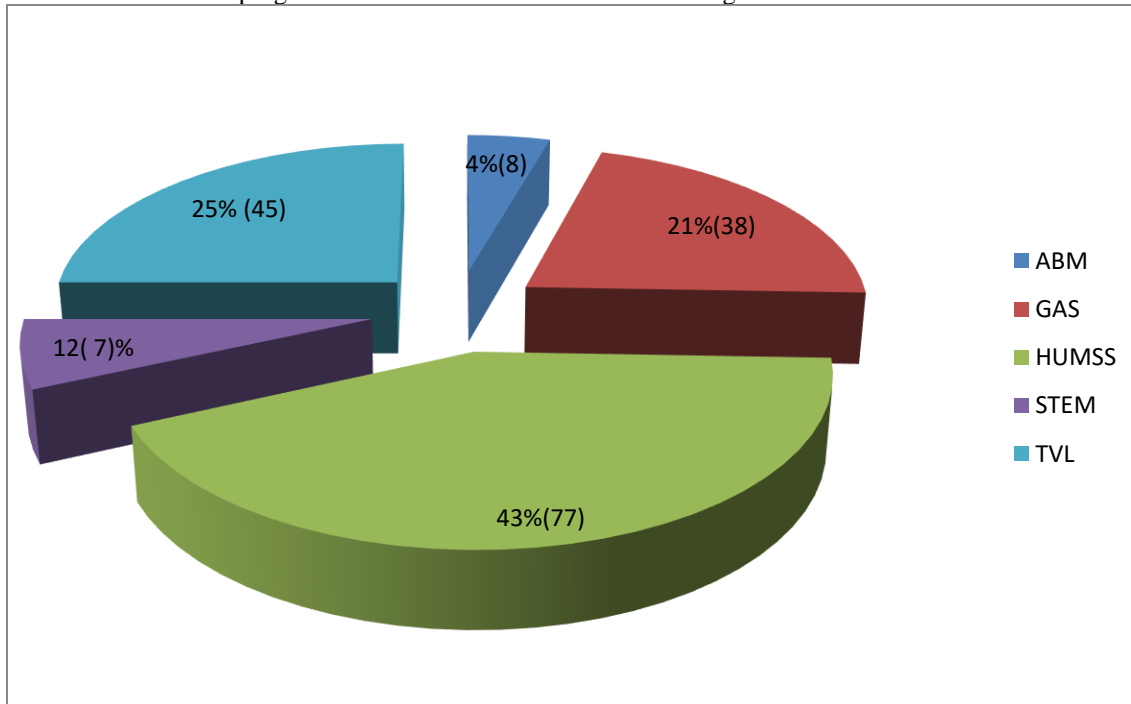
- a. STEM
- b. GAS
- c. HUMSS
- d. TVLL
- e. ABM

METHODOLOGY

The study is a descriptive study. The key trend tests, correlation measures and testing of the disparity between the respondents' two means of academic success were used. The relationships of the performances pointed out agreed with the endorsed literature in the context.

Respondents

The study consisted of first year college students of Bachelor of Secondary Education from sections A and C and the Bachelor of Elementary Education sections A and C of the College of Education of Isabela State University Cabagan campus. The respondents in the school year 2017-2018 are the first batches of BSEd and BEEd and also the first cohorts of the K to 12 curriculum programs. In this study, there are 100 BSEd and 80 BEEd students. The graph displays the per-strand distribution of college students.



Data Gathering Instrument

DEPED Form 138 from grade 12, grade certificates and registration forms from the registrar were the collection methods used.

The non-random method of sampling, which is purposeful sampling, is used. Out of three (3) sections, the researcher picked two (2) sections from both BSEd and BEEd programs.

RESULTS AND DISCUSSIONS

The following variables were correlated: 1)general grade 12 weighted average (gwa-12), 2) entrance test, 3)interview, 4)general first year college weighted average (gwa-1st yr.).

The calculated value of r is 0.41 for the gwa-12 and entrance test, indicating that there is a positive correlation between the two variables, but the correlation is poor. This is the same for the estimated value of .41,.31,.39 and .46 for the gwa-12 and interview, entry examination and interview and gwa-1st year and entry examination, respectively.

Subsequently, from the qualitative understanding of r, the computed value for GWA-12

and gwa-1st yr is $r = 0.61$, which implies that there is a moderate positive correlation between the general weighted average of the students in grade 12 and 180 students in college. In addition, since the general weighted average is high in high school, this means that the general weighted average is also high in the first year.

There is a reasonably positive link between the general weighted average for first year college and entrance exams. As the entrance test is high, this means that the general weighted average is also high in the first year.

Table 1. The Computed Correlation Coefficient (r)

	<i>GWA (GRADE 12)</i>	<i>ENTRANCE EXAMINATION</i>	<i>INTERVIEW</i>	<i>GWA- FIRST YEAR</i>
GWA (GRADE 12)	1			
ENTRANCE EXAMINATION	0.41	1		
INTERVIEW	0.31	0.39	1	
GWA (FIRST YEAR)	0.61	0.62	0.46	1

However, when talking about high, moderate or low coefficients, the calculated value is interpreted in a relative manner. The use of the coefficient of determination is the best way to test r. The determination coefficient for the variables gwa-12 and gwa-1st yr; and the entrance exam and gwa-1st yr. is .388.

It also means that 38 percent of the variance in gwa from the first year of college is due to the variation in gwa for grade 12 out of 180 students in the study. In addition, the gwa is due to the variation of the entrance exam in first year college. The 62 percent is the variation in chance. It was not possible to attribute other variables to each other.

Table2. Computed Coefficient of Determination

	<i>GWA(GRADE 12)</i>	<i>ENTRANCE EXAMINATION</i>	<i>INTERVIEW</i>	<i>GWA-FIRST YEAR</i>
GWA(GRADE 12)	1			
ENTRANCE EXAMINATION	0.17	1		
INTERVIEW	0.1	0.15	1	
GWA(FIRST YEAR)	0.38	0.38	0.21	1

In order to know whether or not the measured r is important, a test of the significance of r is necessary. From the table below, all the calculated

values for t are greater than the critical value of 1.96, so we can assume that all the variables have a significant relationship.

Table 3. Testing the Significance r

	GWA(GRADE 12)	ENTRANCE EXAMINATION	INTERVIEW	GWA-FIRST YEAR
GWA(GRADE 12)	1			
ENTRANCE EXAMINATION	5.47	1		
INTERVIEW	4.14	5.2	1	
GWA-FIRST YEAR	8.14	8.26	6.13	1

Therefore, referring to the table of qualitative interpretation of r, that the general weighted average of the 12 STEM students in the study in grade 12 and first year college has a very high positive correlation. Since the measured t is larger than the critical value, we can also conclude that there is a substantial relationship between the students' general weighted average.

Of the 38 GAS students in the study, the general weighted average for grade 12 and first year college has a reasonably positive correlation. Since the measured t is larger than the critical value, there is also a significant relationship between the students' general weighted average.

For the HUMSS, the general weighted average of the 77 students in the study in grade 12

and first year college has a very high positive correlation. Because the computed t is greater than the critical value, there is therefore a significant association between the students in this strand's general weighted average.

The general weighted average of the students in the study in grade 12 and first year college has a poor correlation in the TVL strand. The computed t, however, is greater than the critical value, so there is also a major connection between the students' academic results.

There is no connection between the general weighted average of the ABM learners in grade 12 and first year college.

Table 4. Correlation of General Weighted Average in Grade 12 and First Year College

STRAND	Mean	R	df	t	Critical Value	Significance
STEM	91.18	0.71	10	3.18	2.306	.05
GAS	90.20	0.69	36	3.93	2.021	.05
HUMSS	91.23	0.72	75	6.22	1.98	.05
TVL	91.02	0.37	42	2.56	2.021	.05
ABM	90.13	0.04	6	0.004	2.447	.05

CONCLUSIONS

It was inferred from the results that there was a substantial connection between the academic performance of the respondents from grade 12 and first year college. The three (3) strands of STEM, GAS and HUMSS had a statistically important output gap at the 5 percent significance stage in the two degree programs.

RECOMMENDATIONS

The researcher indicates that, based on the comments and recommendations of the respondents for the enhancement of two programs:

The college should have resources for both teachers and students, in order to further enhance academic performance, equipment and other instructional aides.

This study suggests that curriculum designers be more aware of the challenges that circulate in school cultures with respect to how the new curriculum impacts student success.

It is recommended that STEM, GAS and HUMSS graduates should be considered as entrants to the various programs by the college. In addition, entrance exam scores are also considered. The use of rubrics to perform an interview should also be carried out.

This study encourages future researchers to explore further the subjects listed, such as changing variables such as courses and respondents.

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