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Effects of Trimester System and Orientation Programme on Students' Grade Point Average in Abdul-Raheem College of Advanced Studies, Igbaja, Kwara State

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Abstract
*Orientation is widely conceived to encompass activities that support the transition in educational institutions. This paper examines the performance of a sample of 81 students who graduated in 2014 from the Abdul-Raheem College of Advanced Studies. The analysis of students' performance was conducted against the three trimesters (First, Second and Third). The sole objective of the Institution is ensuring that students are performing efficiently in the three trimesters, including their final grade point so as to allow the student secure admission into 200level in any institution of choice. The study, relying on statistical analysis, identified two factors (Trimesters, Orientation) as important determinants of student final performance (Grade point). The paper concludes with implications from the study's findings. The third trimester accounts for the highest correlation coefficient (**0.553**)*

with the grade point and p-value <0.05 (which indicate that it is significant). The forward method of variable selection was used to detect the parsimonious model among the possible models. The model with the three independent variables (first, second and third trimester) has the highest explanation of the total variation present in the grade points (dependent variable). The R^2 value of 0.770 indicates that 77% of the total variation in the grade point can be explained by the three independent variables all together. Also, the third trimester result explains over 50% of the total variation. The outcome also showed that orientation and trimester is significant to the Grade Point Average (GPA) scores of students. Based on these findings, a recommendation was made for the management to improve the orientation programmes geared towards helping students to maximize learning throughout the three trimesters.

Keywords: Trimester system, orientation programme, students' grade point and college.

Introduction

The obvious importance of knowledge creation to development has long place in tertiary institutions at the centre of the efforts of governments and private bodies to increase the rate at which their economy is developing. Around the world, as the processes of globalization and technological revolution create greater demands on firms and nation states to compete more effectively, countries and firms are turning to universities to assist in the development of innovative capacity. From the widely held belief that it is hard work that results in academic success and that laziness and procrastination ultimately result in academic failure, (Paden and Stell, 1997). Therefore, similar to how motivation (information on the cross-over grade point) interacts with ability to influence academic performance, one can infer that higher of better grade point interact with ability to influence performance among college students. Strauss and Volkwein (2002) reported that working more from the beginning to the end of an academic session is positively related to a student's GP.

More so, the pressure on tertiary institutions for increased productivity has been found appealing in developing countries such as Nigeria. Several of these countries are liberalizing their systems of higher education in an effort to increase their tertiary admitted student by allowing private sectors to establish tertiary institutions.

These countries are also placing national university systems, which have typically been funded by the public purse and subject to limited, if any, competition, under greater levels of competitive pressure, with the goal of generating higher levels of operational performance from the institutions.

Orientation can be well thought out as any effort by an institution to help students make a successful transition from their previous environment into the collegiate experience. The purpose for such programmes may include academic preparation, personal adjustment, and increasing awareness of students and parents during the transition process, Perigo and Upcraft (1989). While orientation programmes have been part of the higher education background for more than a century, it was not until recent decades that these types of programmes have gained popularity and numbers.

Hunter, Skipper and Linder (2003) estimated that 74 per cent of the institutions of higher learning within the United States have an orientation course or first-year seminar. Institutions of higher education realize the value of these programmes in addressing transitional issues for the many types of students enrolling in higher education. Some studies attributed the higher Cumulative Grade Point Averages (CGPA) of student participants due to proper orientation given to the students throughout their stay in school.

It is upon the background of these developments that the study reported in this paper is been placed to see the effect of trimester and orientation on the academic performance (GPA)of students based on the orientation and awareness of the cross over grade point (minimum of 2.40) into 200 level in any university in Nigeria.

One of the most visible areas of performance of universities is the extent to which they are able to educate students who, on leaving their institutions, are transformed individuals capable of making a positive

difference at national, regional or global levels. In the summer of 1995, the Commonwealth of Virginia took a major step in initiating educational reform as outlined by NCTM Chair from 1986 to 1995: the incorporation of a vision for preparing students for the twenty-first century into goals and standards.

Obviously, part of the success of the educational process is measured in the quality of the student's academic performance at the end of their study period in the institution. It is in this context that this study reported upon the factors (orientation and trimesters) that were influential in determining the performance of students in the college for a period of one year academic session based on the orientation they have on the grade point required by Nigerian Universities Commission in order to be admitted into 200 level of any Nigeria Universities.

A significant component that affects student performance, particularly in the college has focused upon the role played by trimester and orientation.

Statement of Problem

Perhaps one of the most under emphasized strategies for achieving students' success within tertiary institution level is the development and implementation of orientation for new students to the school environment. Abdul-Raheem College of Advanced Studies, Igbaja have always made orientation a core item for first year students. Despite the importance of orientation to the new students, literature on this subject is very scanty, especially in Nigeria where orientation is virtually not taken serious by many institutions. This knowledge breach created provided the researchers the sufficient drive to conduct this study. The primary aim of this study is to explore the effects of trimester system and orientation programme on students' academic performance (GPA) in the college.

Research Questions and Hypothesis

In order to investigate into the subject under study, a research question and two research hypotheses were formulated.

1. What are the students' views on the significance of orientation programme for fresh students in the college?
2. H_1: There is no significant relationship between participation in students' orientation programme and academic performance (GPA) of students.
3. H_2: Orientation has no significant effect on students' academic performance (GPA).

Significant of the Study

The outcome of this study has significant implications for designing and implementing a continuous orientation programme for fresh students in our tertiary universities and colleges. This study could be potentially beneficial to undergraduate students in general since it would expose them to importance of participating in orientation programmes. This study would also serve as a frame work for evaluating the success or otherwise of trimester and orientation programme for students in tertiary institutions.

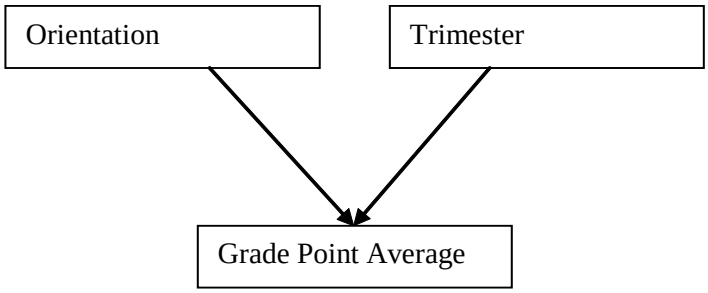

Fig.1: The V-model showing Grade Point Average depending on Orientation and Trimester. The V-model is a predictable effect of the independent variables (trimester and orientation) on the dependent variable (grade point average). This model helps in easy transmission of this study.

Orientation

Dictionary definitions of orientation are "finding direction" or "the adjustment or alignment of oneself or one's ideas to surroundings or circumstances". In context of this study, orientation here is used for

activities to support the transition of newly admitted students into the educational/academic environment.

It would be more accurate to describe these activities as induction. They are generally provided in a student's early days. Orientation need not and ideally should not cease a week or two after a student's arrival, as:

1. Periods of transition occur at many points of the educational experience.
2. Orientation is a continuous and not a discrete, process.

In this study, the terms will be used synonymously but the type of orientation detailed is induction, though this may go beyond the first few days. This type of orientation can go on for many weeks and can include sessions, events or activities throughout a student's first year in the school.

The objectives for student orientation in the college

Newly admitted students are removed from the cues, clues and familiar landscape of their own culture. More than home students, they are removed from their usual support networks and mechanisms. Many of the new students will be lacking direction, not knowing where to go, literally or metaphorically. It may help to consider the following:

1. How would a new student be feeling about moving to a tertiary institution? They would have received an admission letter from their institution; torn open the letter, danced round the table with their relatives, phoned all their friends to tell them the exciting news and then started to wonder:

i. I've never left home for such distance before.
ii. What will it be like?
iii. Will I make friends?
iv. Will I understand what people are saying?
v. Will I cope with the work?
vi. Will my English be good enough to succeed?
vii. How do I gather momentum to graduate with a getter grade (GPA)?
viii. What are the minimum requirements (GPA) in order to be promoted to the next class?

The college administration expects that during orientation programme, new students would be provided with necessary information and assistance that help them to succeed academically and develop their personality. It is also the aim of the college to expose the new students to the wide range of issues that would face them as the students of the college including safety health and academic matters. Orientation programmes also provides students the opportunity to know one another and develop new relationships. Finally, orientations are organized to introduce new students to their schools, Lecturers and the required GPA (minimum of 2.40) in order to be promoted to the next level.

Trimester Academic System

Abdul-Raheem college of Advanced Studies desired a more efficient way to provide an education to its students so they are better equipped for the competitiveness of the emerging global economy. The College looked to trimester scheduling rather than the traditional semester scheduling as a method of improving the quality of education within an academic session.

With the continued focus on declining college's student achievement at Federal, State and private level, the college moved to the trimester schedule in an effort to positively impact student learning. The rationale for using the trimester format was to create a school where teaching and learning is valued with an emphasis on learning outcomes demonstrated in student performance. The manipulation of time was necessary, and a well-designed curriculum and creative instructional practices were the keys to success. In today's high school setting it is critical to deal with all types of student needs and levels of proficiency. To state the obvious, there is a relationship between the amount of time invested in learning and the quantity and quality of learning that occurs for any given group of students. Hence, at this level, the potential importance of time as an element in school reform is transparent. One way to increase student achievement is to manipulate time. It has been demonstrated that the relationship between allotted time and learning outcomes is relatively weak, but the relationship between time on task

or academic learning time and learning outcomes is almost certainly much greater (Gandara, 2000).

Grade point average (GPA)

GPA is a measure of student achievement used both during and on completion of a programme of study. The reported here has been based on a GPA scale model whereby letter grades are given to assessments, with implied descriptors, such as A = excellent, B = good/above average, and so on. Typically with GPA, student work is graded A to E, or F (a fail), and then converted to a grade point (where A = 5.00 and E = 1.00). In Nigeria, a GPA is then calculated by averaging the grade points for every course from all years of study. A GPA system gives students access on a continuous basis to a cumulative average as well as their receiving an end of programme GPA score. There are different GPA systems in use across and within countries, with different scales. The final grade can be calculated in different ways where this is desired by, for example, excluding first year grades or weighting final year grades.

Research Methods

A descriptive survey analysis was employed in order to examine the current characteristics of issue under study. The rationale for the use of this method was to afford the opportunity to determine the nature of orientation programmes and trimester as it pertained to the college.
The target population for the study comprises of school of natural sciences students in Abdul-Raheem College of Advanced Studies, Igbaja. These students were chosen in the third trimester and they could vividly recall memories whether they participated in the orientation programme into the college system.

Eighty one (81) students in 2014 academic session were sampled from the college. A purposive sampling technique was employed to sample students from the eight departments which run Advanced Diploma Programme. The departments are; Statistics, Mathematics, Microbiology, Biochemistry, Computer Science, Physics, Industrial Chemistry and Geology department. Finally, their final GPA was assessed after the third trimester. The principal motivation in this study was factors;

trimesters and orientation which were influential in determining student's performance (GPA) during the advanced diploma year.

A questionnaire was used as the major tool for data collection. The items of the questionnaire were carefully designed to encapsulate the variables of interest in order to obtain the needed data from the respondents. Regarding the source of secondary data (GPAs), students were required to provide their first and second semester GPs and the third trimester GP was extracted from register, which enable the researchers to check their actual GPAs from student's records.

Both descriptive and inferential statistics were employed. Inferential tools (Pearson's product Moment Correlation, Regression and F-test (ANOVA) analysis) were calculated using SPSS version 20. The regression analysis was used to find the impact or effect of trimester on students final GPA. Correlation and multiple regression analyses were conducted to examine the relationship between final grade point and a three statistics courses taken in three trimesters (potential predictors) during a diploma programme. The concepts and principles developed in dealing with simple linear regression (i.e. one explanatory variable) can be extended to deal with several explanatory variables of which are continuous. The regression equation model becomes:

$Y = á + â_1X_1 + â_2X_2 + â_3X_3$, Tabachnick and Fidell (1996).

The multiple regression models with all three predictors produced R^2 are obtained. In order to apply this model, descriptive and Analysis of Variance (ANOVA) was also obtained.

Results

This section showcases the analysis done for assessment of the predictive power of students' result in trimesters and orientation in predicting student grade point. The data is collected for 81 students for four variables; result of first semester, second semester, third semester and their grade points.

Research Question 1

In soliciting students' responses on the significance of orientation programmes, the views were nonconforming. About 87% strongly

agreed with the affirmation that orientation provides students good academic information regarding academic programmes, policies and regulation that enhances students' academic performances (GPS). The same percentage of the students agreed that orientation programmes gave students opportunity to develop interpersonal relationship in the college and it gave students insight into the minimum required GPA that will enable them to be promoted to the next class (200 level).

Research Hypothesis 1 (H_1): There is no significant relationship between participation in students' orientation programme and academic performance (GPA) of students.

Table 1 to 5 portrays the regression and correlation findings.

Table 1: Distribution of Descriptive Statistics

	Mean	Std. Deviation	N
Grade Point	2.5751	1.05238	81
Third Semester	54.5926	17.33766	81
Second Semester	55.4815	17.64165	81
First Semester	45.1975	17.65886	81

The table 1 above shows the descriptive analysis of the four variables.

In order to test for hypothesis 1, the Pearson Product Moment Correlation Coefficients analysis was carried out using a current Statistical Package for Social Science Students (SPSS 20) and the result is as displayed below:

Table 2: The Pearson Product Moment Correlation Coefficients for the variables

Correlations		Grade Point	Third Semester	Second Semester	First Semester
Pearson Correlation	Grade Point	1.000	0.553	0.305	0.354
	Third Semester	0.553	1.000	-0.063	0.032
	Second Semester	0.305	-0.063	1.000	-0.206
	First Semester	0.354	0.032	-0.206	1.000
Sig. (1-tailed)	Grade Point	.	0.000	0.003	0.001
	Third Semester	0.000	.	0.288	0.388
	Second Semester	0.003	0.288	.	0.032
	First Semester	0.001	0.388	0.032	.

From table 2 above, all the three explanatory variables have positive correlations with the response variables (grade point). The third semester accounts for the highest correlation coefficient (**0.553**) with the grade point with p-value <0.05 (which indicate that it is significance).

Table 3: Distribution of Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.553[a]	0.306	0.297	0.88253
2	0.649[b]	0.421	0.407	0.81066
3	0.770[c]	0.593	0.578	0.68400

a. Predictors: (Constant), Third Semester
b. Predictors: (Constant), Third Semester, Second Semester
c. Predictors: (Constant), Third Semester, Second Semester, First Semester

The forward method of variable selection has been used to detect the parsimonious model among the possible models. The model with all the three independent variables has the highest explanation of the total variation present in the grade points (dependent variable). The R^2

value of 0.770 indicates that 77% of the total variation in the grade point can be explained by the three independent variables all together. Although, only the third trimester result explain over 50% of the total variation. This can be justified by referencing to its higher correlation with the dependent variable.

Hypothesis 2 (H_1): Orientation has no significant effect on students' academic performance (GPA).

In order to test for hypothesis 2, the student t-test and F-distribution (ANOVA) was carried out using a current Statistical Package for Social Science Students (SPSS 20) and the result is as displayed below:

Table 4: Distributions of Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T-values	Sig.
	B	Std. Error	Beta		
Constant	-1.859	0.436		-4.268	0.000
Third semester	0.034	0.004	0.566	7.774	0.000
Second semester	0.026	0.004	0.428	5.754	0.000
First semester	0.025	0.004	0.424	5.706	0.000

a. Dependent Variable: Grade point.

From table 4 above, the fitted model is given as:

$$\text{Grade point} = -1.859 + 0.34X_{\text{ThirdSemester}} + 0.26X_{\text{SecondSemester}} + 0.025X_{\text{FirstSemester}}$$

Table 5: Analysis of variance table (ANOVA)

Model	Sum of Squares	Df	Mean Square	F	Sig.
1. Regression	27.070	1	27.070	34.756	.000[b]
Residual	61.530	79	.779		
Total	88.600	80			
2. Regression	37.341	2	18.670	28.410	.000[c]
Residual	51.259	78	.657		
Total	88.600	80			
3. Regression	52.575	3	17.525	37.458	.000[d]
Residual	36.025	77	.468		
Total	88.600	80			

a. Dependent Variable: Grade Point
b. Predictors: (Constant), Third Semester
c. Predictors: (Constant), Third Semester, Second Semester
d. Predictors: (Constant), Third Semester, Second Semester, First Semester

Table 6: Comparison of Mean GPA score of participating and non-participating students in 2014 orientation programme

	Students Category	N	Mean	Standard deviation	Standard error of mean	*Sig*
GPA	**Participant**					
	Non-Participant	**71**	**3.68**	**20.3452**	**11.9087**	**0.031**
		10	**2.72**	**28.0861**	**16.1137**	

The findings here indicate that there is significant difference in the mean GPAs of participant and non-participant students in 2014 students' orientation programme in the college.

Discussion

From our findings, a very high percent (87%) strongly agreed with the assertion that orientation provides students good academic information that will enhance students' academic performances. Likewise, about the same proportion of the students agreed that orientation programmes helps students to have an insight of the minimum required GPA that will enable them to be promoted to the next class (200 level).

From table 2, trimesters are correlated with the response variables (grade point). Though, the third semester accounts for the highest correlation coefficient (**0.553**) with the grade point with p-value <0.05 (which indicate that it is significance).

The reliability (R^2) value of 0.770 indicates that 77% of the total variation in the grade point can be explained by the three independent variables all together. Although, only the third trimester result explain over 50% of the total variation. This can be justified by referencing to its higher relationship with the dependent variable.

Finally, our findings also indicate that there is significant difference between the average GPAs of students in 2014 students' who participated and those who did not participated in new students' orientation programme in the college. This finding is in line with the research by Busby et al. (2002). Who found out those students who participated in new students orientation programmes performed better academically than those who did not. More so, this finding supports Gentry et al. (2006) that students who participated in orientation programmes are more likely to be regular in classes than those who did not.

Conclusion

Over the past years, several studies have been conducted to look into the impact of orientation programme on students' academic performance. Most of these studies focused attention on other programmes organized by the school management of universities and colleges. Here, we focused on the effect of trimesters and orientation, precisely orientation on minimum GPA. Conclusively, we cannot but agree that orientation programmes and trimesters have a great impact on students' academic performance.

In sum, the findings of this research are consistence with the literatures on topics of orientation and students' academic performance. Students who participated in orientations tend to have higher GPAs than students who do not. Trimesters were also associated to students GPAs, i.e the third trimester contributed best to students' performance. This is not surprising, because all the students were re-orientated on the required GPA to move to the next class (200level) at the beginning of the third trimester.

Implication for the College Management Practice

This study has some major implication in improving the college management practice. These suggestions have been put together as follows:

1. In the first place, since orientation plays a critical role in determining the extent to which student are able to go as far as academic work is concerned, hence the college management councils should put in

the mechanism to always organize the orientation programme when all the student are all on ground.

2. Secondly, the college management should also endeavour to make orientation programme session as attractive as possible. Enough awareness should be made to this extent and emphasis should be laid on the minimum required GPA to be promoted to the next class (200 level).

Recommendations

Several studies have suggested that the combination of some suggestions into the orientation programmes of fresh students would go to improve student learning and performance. Based on our findings and report, the following recommendations were made:

1. Since students participation in orientation programme has a positive impact on their academic performance, the management of the college should spend time to carefully plan each orientation programme. In planning orientation programme, all activities should be geared towards helping students to maximize their academic attainment.
2. Evaluation and feedback are important in development of any orientation programme. Evaluation allows participants to play an active role in providing feedback, which can then be used to improve the content, structure and focus on future programmes.
3. The result of each trimester should be released early enough after the exams to serve as reminder to the students and another orientation should be re-organized for the students again on the basis of minimum required grade point.
4. A special counseling section should be organized for the weak students and encouraged by various departmental level advisers and (or) educational counselor(s).

Limitation of the study

The population from which the study sample was drawn consisted of only students from one college (Abdul-Raheem College of Advanced Studies). The results from this study may therefore provide just a guide

on which to base a further research. Therefore, the results of the analysis may not accurately reflect the situation as it pertains on ground. Finally, it must be noted that make-up of the population of the college students may change from year to year.

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