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**INTERCULTURAL COMMUNICATION COMPETENCE AND ACADEMIC  
PERFORMANCE OF INTERNATIONAL UNIVERSITY STUDENTS AT PAN  
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**INTERCULTURAL COMMUNICATION COMPETENCE AND ACADEMIC PERFORMANCE OF INTERNATIONAL UNIVERSITY STUDENTS AT PAN AFRICAN UNIVERSITY INSTITUTE FOR BASIC SCIENCES, TECHNOLOGY AND INNOVATION**

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**Abstract**

**Purpose:** The objective was to determine the impact of inter-cultural communication competence on academic performance of postgraduate international students at PAUSTI, Kenya.

**Methodology:** The study adopted a descriptive study design. The target population was PAUSTI international students hosted at JKUAT. The study considered 240 postgraduate international student who form 80% of the total postgraduate students at PAUSTI. A questionnaire was employed in this study to gather primary data. The study used both descriptive statistics and inferential statistics. The information was analysed using statistical package for social sciences (SPSS) Version 21 computer software. Frequency, mean, standard deviation, variance, R square, t-tests, F-tests and Analysis of Variance were used to analyse the data. The study results were presented in tables and graphs

**Findings:** The study found out that academic performance factors relating to developed positive interpersonal relationships with others, positive response to culturally different counterparts during interactions, knowing what to say when interacting with people from other cultures and asking whenever one encounter anything that she or he doesn't understand or when he or she lack the necessary cultural knowledge, a clear understanding of the complexity of elements important to members of a culture in relation to history, values, beliefs and practise were the most prevalent effects of PAUSTI international students. There is a significant relationship between inter-cultural knowledge, inter-cultural attitude, inter-cultural communication skills, inter-cultural awareness and academic performance among international postgraduate students at PAUSTI.

**Unique contribution to Theory, Practice and Policy:** The study therefore recommends that the findings be used to fashion policies in the institutions of higher learning to put structures in place that promotes development of inter-cultural communication competence as this affects academic performance for international students

**Keywords:** *Inter-Cultural, Communication Competence, Academic Performance, PAUSTI*

## INTRODUCTION

In today's globalized world, the probability of encountering people from other cultures in our daily interactions is larger than ever before (Jensen 2003). Technology has made it even easier for people to speak with others from culturally and linguistically different backgrounds, whether or not they are having actual contact. However, relationships that are established on the phone or the web are frequently a prelude to face-to-face communication (Andersen et al. 2002). Due to advances in technology, people are increasingly living in borderless spaces where ideas, resources move from one country to a different country. (Alfred & Micah 2012). Nationals drawn from different parts of the planet find themselves in relatively new socio-cultural settings; in pursuit of education, business, diplomacy or family ties (Alfred & Micah 2012). Additionally, contemporary phenomena like internal conflict, terrorism, and global climate change have led to displacements of immeasurable citizens round the world who find themselves in new socio-cultural environments within which ability to speak makes a full difference. It's for such reasons that Inter-cultural Communication (ICC) Competence has gained currency in modern human interactions. Moreover, the literature within the realm of inter-cultural education warns that exposing students to international experiences without preparing or supporting them adequately to make a way of their inter-cultural experience may find yourself in negative learning outcomes (Bridges, *Trede*, & *Bowles* 2009). Guiding students before, during and after their study abroad experience and developing their inter-cultural communication skills is very important not only for the success of students' study abroad experience but also to realize the goals of international organizations, as an example, supporting European citizenship, training globally ready and inter-cultural sensitive graduates for the professional market, motivating understanding among the citizens of various countries (Hill, 2013).

Higher education institutions round the world are experiencing globalization in various ways: students are increasingly mobile as they move from campus to campus, employers are calling for college students who are prepared to enter a competitive global job market, and that we all need citizens who understand the complexities of our world and might live harmoniously with others. Globalization is the reality of the planet within which live, internationalization is higher education's response thereto reality (Hill, 2013). In line with the International Association of Universities (2012), an increasing interdependence among nations furthermore as intensified mobility of products, ideas and folks has had the effect of constructing internationalization more of an academic institutional imperative. Despite its central role in human society, and thus its importance to educational activity, the communication discipline and its contributions to internationalization have traditionally been neglected in comparison to fields of study whose designation include the term international or who offer technical skills perceived as having appeal to an international market (e.g., information technology, finance or engineering). Yet, higher education is tasked with teaching students not only content knowledge and technical skills, but also to analyse the meanings held by different groups or cultures and communicate that knowledge.

From a general perspective, inter-cultural communication (IC) can be evaluated as a form of global communication because it focuses on a wide range of communication issues that appear among

people from different cultures. It is not an idiosyncratic but an interdisciplinary study field. It accommodates different subject areas such as education, language studies, communication studies, cultural anthropology, social psychology, behavioural psychology and management (Espinar *et al.*, 2012).

In a systematic analysis of what constitutes competence within the domain of inter-cultural communication, primacy is given to the levels of knowledge, skills and awareness of the affected participants or subjects Chun (2011). In this context, knowledge refers to inbuilt insights, gained as a result of experience or interaction with specific cultures. Skills on the other hand connotes dexterity to decode and understand new inter-cultural interfaces; while awareness speaks to mindfulness of the need to always look out for certain attributes whenever one is involved in a multicultural context.

Equally, as Bennett and Salonen, (2007) posit, to better understand the ICC phenomenon, three dimensions, namely cognitive, affective and behavioural have to be taken into considerations. The cognitive dimension pays attention to the ability to understand the thinking that lead other to make certain interpretations. On the other hand, effective dimension considers proclivity to emotionally connect with interlocutors who are culturally removed from one's own. Finally, behavioural dimension forms a significant component of ICC competence as it denotes ability assume appropriate behaviour towards others from different cultures.

Acquisition of academic skills, competencies and attitudes often take place through information exchanges; largely facilitated by language Dooley, (2009). In addition, desire to acquire international education has been a significant part of globalization phenomenon. Many universities around the world tend to push for global visibility by attracting international students into their programmes. When students leave their home countries for students, sometimes they end up in socio-cultural and linguistic contexts that are markedly different from the home experience.

As a result, many universities have become melting pots of linguistic and cultural diversity; bringing together many nationalities to undertake their academic programmes at different levels. Kenyan universities have, in keeping with this global trend, continued to attract international students. We have also seen emergence of specialized academic agencies of intergovernmental organizations such the Pan African University; a graduate training facility of the African Union that is hosted at Jomo Kenyatta University of Agriculture and Technology, Kenya. With students drawn nearly all the member states of the African Union, the Pan African University brings together a diverse collection of students and faculty, with the latter sourced globally.

The ensuing linguistic and cultural diversity necessitates design and sustainable implementation of frameworks that can facilitate acquisition of functional inter-cultural communication competence by the participants. ICC competence is not only an important tool in maximizing utility of human interactions, for students in multicultural settings; it plays a definitive role in both academic and career success.

## **Problem Statement**

Although there is now a global consensus on the importance of inter-cultural communication competence in facilitating smooth interaction among people of diverse cultural backgrounds, the adoption and application of ICC remains low Griffith & Harvey, (2001). This unfortunate fact is a result of many factors, at individual and structural levels.

Cultural differences among international students can cause many difficulties, including conflict, misunderstanding, and poor performance (Shenkar and Zeira, 2002). In Malaysia, a study was conducted which revealed that students who have negative attitudes towards education activities are found to exhibit challenging behaviour including anti-social and off-task behaviour (Awang, Ahmad & Bakar 2013). Amy Louise (2011) concluded that inter-cultural competence had a significant impact on the level of both teacher and learner's academic success.

In Slovakia, Verešová and Malá (2016) studied effect of attitude toward school and learning on academic achievements of adolescents in secondary schools. The results revealed that there is no significant inter-sexual differences among adolescents in terms of emotional feelings and emotional relationship with school learning. In Kenya; Maina (2010) studied impact of skills and attitude on students in local universities and revealed that goal-oriented students generally enjoy positive feelings concerning their university experiences.

While studies demonstrate inter-cultural communication competence contribute to academic performance, on divergent, Nesdale, Robbe and Oudonhoven (2011) reported further evidence that intercultural effectiveness is negatively associated with ethnic prejudice. The studies are also based on developed economies where the academic performance in the developed countries differs significantly with those in developing countries. Therefore this study therefore sought to find the reasons behind the divergent research evidences and fill the knowledge gap by establishing the impact of inter-cultural communication competence on academic performance of postgraduate international students in PAUSTI Kenya.

## **Communication Accommodation Theory (CAT)**

CAT was first developed by Howard Giles who was a professor and a researcher way back in the 1971 at California University. Since its inception of the theory in the early 1970s, CAT has undergone several conceptual refinements and theoretical elaborations, as exemplified by moves from speech into the non-linguistics. (Giles, Mulac, Bradac, & Johnson, 1987).

CAT states that when humans talk to each other, they tend to change the way they talk to match the way the listener talks. Whether you realize it or not, and it can be either conscious or unconscious, you match your accent, your speed, your rhythm, your vocabulary and even your stance and gestures to that of your communication partner. (N. Coupland & Jaworski, 1997)

During an inter-cultural interaction, a lot really takes place. For example a conversation between an older male Professor of British origin, a male African American undergraduate student, and a female post-doctoral student from Switzerland taking place in an American University. Variety of social dimensions will be involved in this situation: gender, culture and ethnicity, social and

occupational status, age, and so forth. How are the different personal and social identities negotiated during the interaction? Who changes his or her communicative style to accommodate whom? What are the outcomes of such accommodating behaviours on the relationship between the interactants? These are valid questions of concern in any typical conversation involving students and professors in a University setting. ( Gallois &Giles, 1998).

Communication Accommodation Theory (CAT) provides a wide-ranging framework aimed at predicting and explaining many of the adjustments individuals make to create, maintain, or decrease social distance in interaction. It explores the different ways in which we accommodate our communication, our motivations for doing so, and the consequences. (Murachver, and Green 2001).

CAT suggests that individuals use communication, in part, in order to indicate their attitudes toward each other and, as such, is a barometer of the level of social distance between them. This constant movement toward and away from others, by changing one's communication behaviour, is called accommodation. According to CAT, there are two accommodative strategies that speakers use to achieve these goals, convergence and divergence.

**Convergence** has been defined as a strategy whereby individuals adapt their communication behaviours in terms of a wide range of linguistic e.g., speech rate, accents, paralinguistic e.g., pauses, utterance verbal, and non-verbal features e.g., smiling, gazing in such a way as to become more similar to their interlocutor's behaviour. Thomson, Murachver, and Green (2001) examined accommodation in communication via e-mail and found that, even in this rather "bare" context, women and men converged to the language style of their Net-pals.

Conversely, the strategy of **Divergence** leads to an accentuation of speech and non-verbal differences between self and the other. A phenomenon similar to divergence is maintenance whereby a person persists in his or her original style, regardless of the communication behaviour of the interlocutor (Bourhis, 1979).

### **Motives of Convergence and Divergence**

An important motive for convergence is the desire to gain approval from one another. The premise is that of similarity attraction (Byrne, 1971). The more similar we are to our conversational partner, the more he or she will like or respect us, and the more social rewards we can expect. Converging to a common linguistic style also improves the effectiveness of communication, this, in turn, has been associated with increased predictability of the other and hence a lowering of uncertainty, interpersonal anxiety, and mutual understanding (Gudykunst, 1995). But convergence is not only rewarding, it may well entail some costs, such as the possible loss of personal or social identity.

Divergence is the desire to emphasize distinctiveness from one's interlocutor, usually on the basis of group membership. (Tajfel &Turner, 1986), this will likely occur when interactants define a situation more in "intergroup" than "inter-individual" terms. An intergroup interaction is when individuals treat each other entirely in terms of their social category memberships.

An inter-individual interaction is when interactants communicate with each other entirely on the basis of their individual differences in temperament and personality and where their ethnicity, gender, age, and so forth are not at a premium. Giles noticed something interesting that people change the way they communicate to others depending on the situation that they are in.

Since CAT is a multifunctional theory that conceptualizes communication in both subjective and objective terms. It focuses on both inter-cultural and interpersonal features and can integrate dimensions of cultural variability. Moreover, in addition to individual factors of knowledge, motivation, and skill, CAT recognizes the importance of power and macro contextual factors (Meyerhoff, 1998).

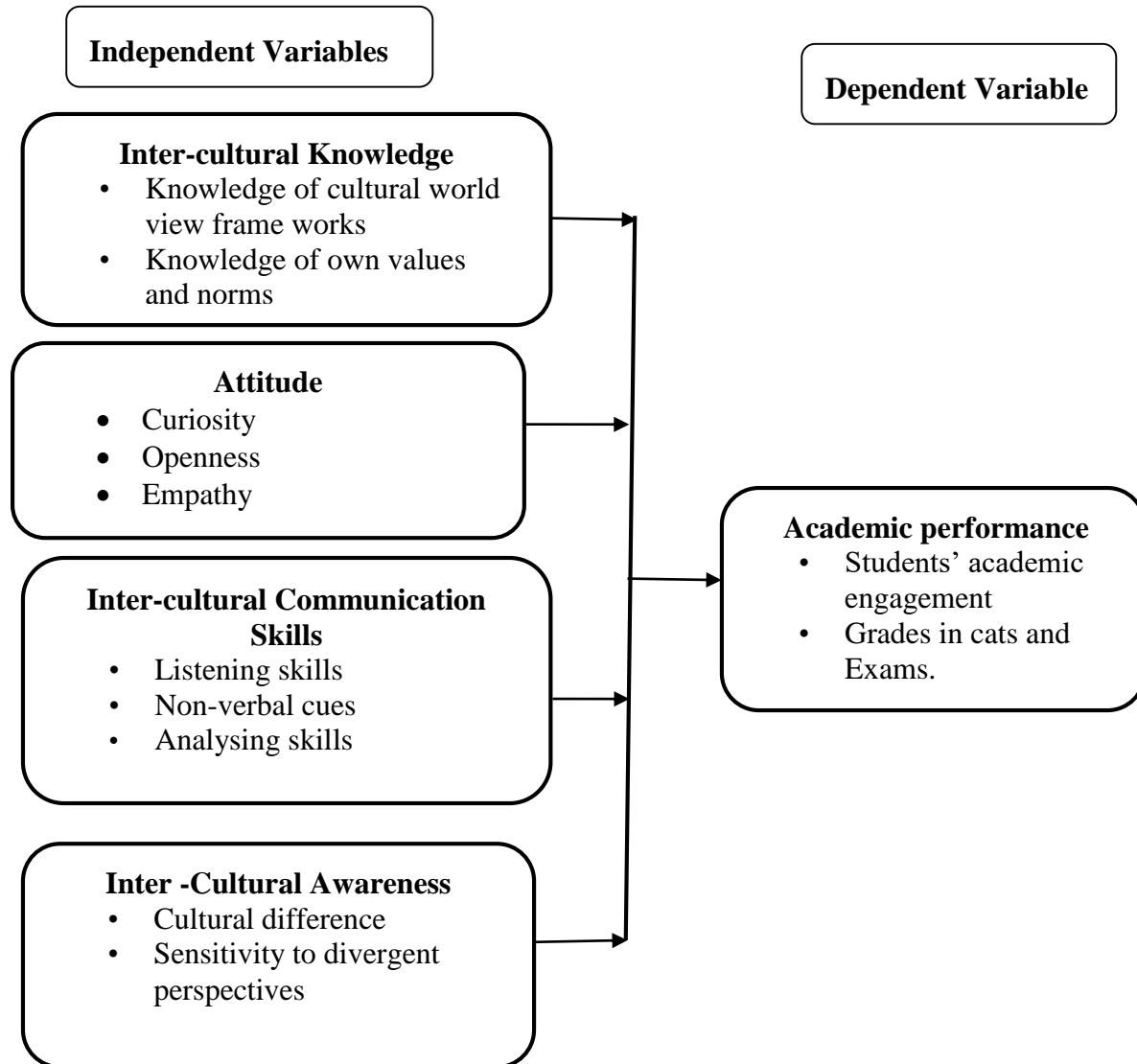
Communication Accommodation Theory is important to this study because it has been applied to study communication between different social groups, cultures, gender, generations and abilities, in different contexts through different media. The inter-cultural context can be considered the most “natural” applied context for CAT, as the theory was first developed by studying interactions where linguistic markers (different languages, dialects, accents) defined membership to cultural groups (Bourhis, 1984).

According to CAT, converging to a common linguistic style also improves the effectiveness of communication, this, in turn, has been associated with increased predictability of the other and hence a lowering of uncertainty, interpersonal anxiety, and mutual understanding (Gudykunst, 1995). But convergence is not only rewarding, it may well entail some costs, such as the possible loss of personal or social identity. If the student converges towards the professor’s communication style, the student may be rewarded by the professor who will perceive the student as particularly competent, but the student may also feel deprived of his social identity.

### **Conceptual Framework**

McGrath (2009) defined a conceptual framework as a group of concepts that are generally specific and systematically organized to present a focus, a rationale and an instrument for the integration and explanation of information.

Conceptual framework provides an overview and understanding among the variables and the phenomena that the researcher seeks to study. (Kombo & Tromb 2009).



*Figure 1: Conceptual Framework*

### **Research Gaps**

Gaps have been identified from the reviewed literature. Richard, Butler and Darrell (2019) examined the impact of awareness on academic performance in college freshmen and Rahman (2010) studied the effect of awareness on students' performance in Allama Iqbal Open University in Pakistan. They, however, had limitations with respect to theories and methodology applied. In this study, descriptive research designs were adopted.

In terms of context for instance Ramamurthy (2015), Mahajan, Preeti, Kumar, Anil (2014) Islam and Rahman (2014) and Martin (2013) provides the impact of literacy and search skills and desired



academic performance. The limitations of the study are with respect to independent variables (literacy and skills) and were carried in a developed economy. Therefore, a knowledge gap exists on the effect of skills in the context of the emerging economies. In this study, independent variables are knowledge, attitude, skills and awareness and desired academic performance as dependent.

## METHODOLOGY

The study adopted a descriptive study design. The target population was PAUSTI international students hosted at JKUAT. The study considered 240 postgraduate international student who form 80% of the total postgraduate students at PAUSTI. A questionnaire was employed in this study to gather primary data. The study used both descriptive statistics and inferential statistics. The information was analysed using statistical package for social sciences (SPSS) Version 21 computer software. Frequency, mean, standard deviation, variance, R square, t-tests, F-tests and Analysis of Variance were used to analyse the data. The study results were presented in tables and graphs.

## RESULTS

### Inferential Statistics

Regression model was utilized to establish if the independent variables; Multiple regression was run to predict students' academic performance, from the independent variables; open mindedness to people from different cultures, free interactions with native students and lecturers asking questions, a feeling of enjoyment towards differences between one's culturally distinct counterparts and oneself, discussion of prejudice towards foreign culture with my fellow students, attendance of campus events and social activity organized at the university, developed positive and interpersonal relationships with others, knowing what to say when interacting with people from other cultures, paying attention to non-verbal cues such as intonation, eye contact and posture and actively paying attention and listening when communication with other people from different cultures.

**Table 1: Regression model summary for the variables**

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.782 <sup>a</sup>	0.611	0.606	3.79111	1.947

a. Predictors: (Constant), Knowing what to say when interacting with people from other cultures.

b. Knowing what to say when interacting with people from other cultures, Open mindedness to people from different cultures.

c. Dependent variable: Examination score marks

Table 1 shows that a significant relationship among; Actively paying attention and listening when communication with other people from different cultures, discussion of prejudice towards foreign culture with my fellow students, free interactions with native students and lecturers asking

questions, open mindedness to people from different cultures, knowing what to say when interacting with people from other cultures, a feeling of enjoyment towards differences between one's culturally distinct counterparts and oneself, and attendance of campus events and social activity organized at the university. In which the values of correlation coefficients for all the variables is 0.782. The adjusted  $R^2 = 0.611$  which indicates that 61.1 % of the inter-cultural variables can be explained by independent variables mentioned above. The remaining 38.9% of the other effects of students' academic performance is affected by other variable not included in the model.

This indicates that there was a significant relationship among actively paying attention and listening when communication with other people from different cultures, discussion of prejudice towards foreign culture with my fellow students, free interactions with native students and lecturers asking questions, open mindedness to people from different cultures, knowing what to say when interacting with people from other cultures, a feeling of enjoyment towards differences between one's culturally distinct counterparts and oneself, and attendance of campus events and social activity organized at the university. The values of correlation coefficients for all above variables was 0.782. The adjusted  $R^2 = 0.611$  indicated that 61.1 % of the inter-cultural variables could be explained by independent variables mentioned above. The remaining 38.9% of the other effects of students' academic performance were affected by other variable not included in the model.

**Table 2: Analysis of variance ANOVA**

ANOVA <sup>a</sup>					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1070.665	8	133.833	4.305	.000 <sup>b</sup>
Residual	4880.468	157	31.086		
Total	5951.133	165			

a. Dependent Variable: Examination score marks

b. Actively paying attention and listening when communication with other people from different cultures, discussion of prejudice towards foreign culture with my fellow students, free interactions with native students and lecturers asking questions, open mindedness to people from different cultures, knowing what to say when interacting with people from other cultures, a feeling of enjoyment towards differences between one's culturally distinct counterparts and oneself, and attendance of campus events and social activity organized at the university

The analysis of variance findings for all the study variables show the significance of the F statistics value 4.305 and p-value 0.000 which indicate that the overall model is statistically significant since p is less than 0.05 of all the variables (Actively paying attention and listening when communication with other people from different cultures, discussion of prejudice towards foreign culture with my fellow students, free interactions with native students and lecturers asking questions, open mindedness to people from different cultures, knowing what to say when interacting with people from other cultures, a feeling of enjoyment towards differences between one's culturally distinct

counterparts and oneself, and attendance of campus events and social activity organized at the university) has significant influence on students' academic performance thus the overall regression model resulted in a statistically significant good prediction of students' academic performance.

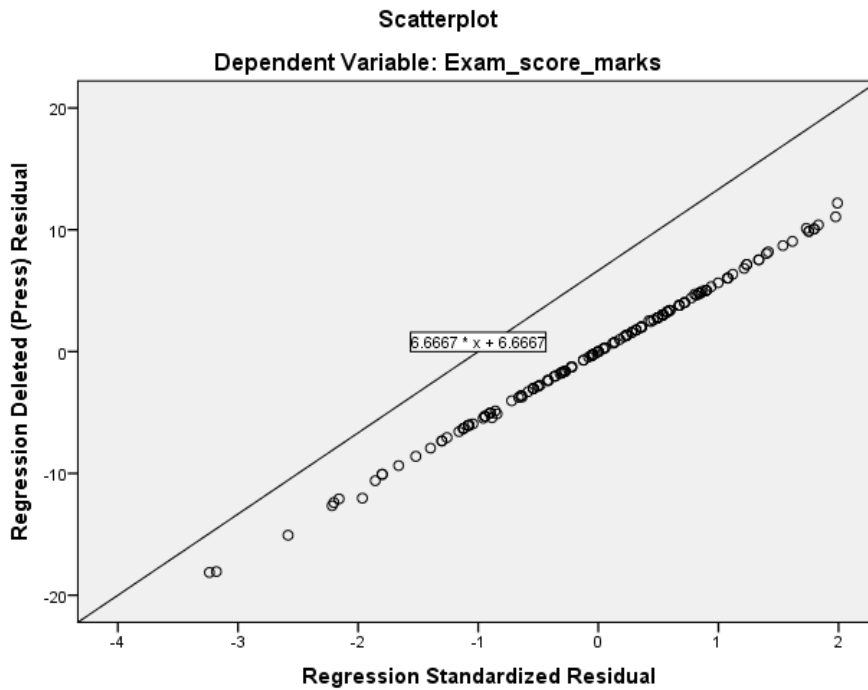
**Table 3: Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
1 (Constant)	49.178	1.499			.000
Giving positive responses to my culturally-different counterpart during our interactions	5.191	.346	.748		.000
Avoid situations where I will have to deal with culturally different persons.	.805	.293	.137		.007

The coefficient summary indicates that the p values of all the predictor variables were less than 0.05 revealing that the overall model was not statistically significant and reliable.

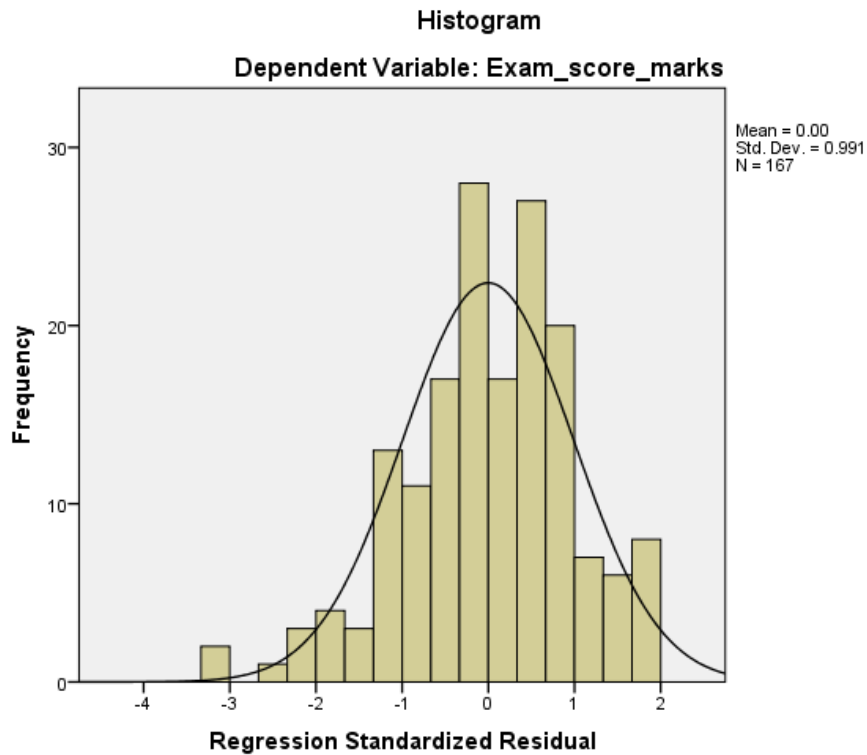
The overall model was therefore defined as;

$$Y = 49.178 + 5.192X_1 + 0.85X_2$$



*Figure 1: Scatter plot of inter-cultural communication competence and academic performance*

Histogram for the regression standardized residual for the dependent variables as well as the observed be expected cumulative probability for the dependent variable, “academic performance.”



*Figure 2: Histogram of inter-cultural communication competence and academic performance*

## Correlation

### Correlational matrix

In this section, the study sought to establish the significance, direction and strength of the linear relationship between inter-cultural competence variables and students' academic performance.

			1	2	3	4	5	6	7	8	9	10	11	12	13
Spearman's rho	Exam_score_marks	Correlation Coefficient	1.000												
		Sig. (1-tailed)		.000											
		N	167	167											
Interpretation of experience		Correlation Coefficient	.297	1.000											
		Sig. (1-tailed)	.000												
		N	167	167											
A_clear understanding		Correlation Coefficient	.248	.401	1.000										
		Sig. (1-tailed)	.001	.000											
		N	167	167	167	167									
Open mindedness		Correlation Coefficient	.221	.247	.283	1.000	.181								
		Sig. (1-tailed)	.002	.001	.000	.010									
		N	167	167	167	167	167								
Knowing what to say		Correlation Coefficient	.340	.372	.324	.170	.250	1.000							
		Sig. (1-tailed)	.000	.000	.000	.014	.001								
		N	167	167	167	167	167	167							
Paying attention to non verbal cues		Correlation Coefficient	.181	.291	.160	.257	.193	.296	1.000						
		Sig. (1-tailed)	.010	.000	.019	.000	.006	.000							
		N	167	167	167	167	167	167	167						
Asking whenever one encounter anything		Correlation Coefficient	.285	.259	.215	.264	.129	.300	.255	1.000					
		Sig. (1-tailed)	.000	.000	.003	.000	.048	.000	.000						
		N	167	167	167	167	167	167	167	167					
Intercultural skills acquired description		Correlation Coefficient	.192	.226	.177	.247	.134	.294	.234	.281	1.000				
		Sig. (1-tailed)	.007	.002	.011	.001	.043	.000	.001	.000					
		N	167	167	167	167	167	167	167	167	167				
Cultural identity affects academic engagement		Correlation Coefficient	.280	.082	.141	.075	.107	.235	.192	.063	.150	1.000			
		Sig. (1-tailed)	.000	.146	.034	.169	.084	.001	.006	.211	.026				
		N	167	167	167	167	167	167	167	167	167	167			
Positive response to culturally different counterparts		Correlation Coefficient	.757	.300	.273	.219	.126	.318	.212	.278	.271	.297	1.000		
		Sig. (1-tailed)													
		N	167	167	167	167	167	167	167	167	167	167	167		

There was a positive significant relationship between inter-cultural communication competence and students' academic performance. Interpretation of experiences from one's own perspective while considering more than one world view and demonstrating ability to act in supportive manner that recognizes the feeling of another group  $r = 0.797$ ,  $p < 0.05$ ; asking whenever one encounters anything that she or he doesn't understand or when she or he lacks necessary cultural knowledge  $r = 0.285$ ,  $p = 0.05$ ; avoidance of situations where one will have to deal with culturally different persons  $r = 0.188$ ,  $p < 0.05$ ; active participation in most class learning experiences (i.e. presentations and discussions)  $r = 0.188$ ,  $p < 0.05$ ; cultural identity affecting academic engagement of international students  $r = 0.280$ ,  $p < 0.05$ ; and positive response to one's cultural different counterparts' unclear meaning during interaction  $r = 0.757$ ,  $p < 0.05$ .

From this analysis, it was found out that interpretation of experience from one's own perspective while considering more than one world view and demonstrating ability to act in supportive manner that recognizes the feeling of another group, asking whenever one encounters anything that she or he doesn't understand or when she or he lacks necessary cultural knowledge, avoidance of situations where one will have to deal with culturally different persons, active participation in most class learning experiences (i.e. presentations and discussions), cultural identity affecting academic engagement of international students, and positive response to one's cultural different counterparts' unclear meaning during interaction were the sources and contributors to students' academic performance.

### **Tests of Assumptions of the Study Variables**

To correctly make conclusions from the analysis of the results, the researcher conducted tests of assumptions. According to Williams, Grajales, and Kurkiewicz (2013) tests of assumptions is crucial task for a researcher utilizing any statistical technique. The researcher therefore conducted the test of sampling adequacy, test of normality, test of linearity and multicollinearity diagnostics to check for any deviations in the data collected.

### **Sampling Adequacy Test**

**Table 5: KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.802
Bartlett's Test of Sphericity	Approx. Chi-Square	1575.772
	df	406
	Sig.	.000

The KMO values ranges from 0 - 1, Field (2005) indicates that the value of KMO should be greater than 0.5 if sample is adequate. The Bartlett's test of sphericity produced p value of 0 which is less than 0.05 indicating validity of the research questions.

### **Test of Normality**

To establish the statistical test to be applied in data analysis, test of normality were conducted.

**Table 6: Test of Normality**

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Examination score marks	.133	167	.000	.953	167	.000

## a. Lilliefors Significance Correction

Both Kolmogorov-Smirnov and Shapiro-Wilk tests produced p values of 0 which is less than 0.05 indicating that the data was not normally distributed thus the variable was transformed using the Log 10 function so as to be able to apply parametric tests in the data analysis.

**Test of Linearity**

Prior to performing linear regression analysis of the study variables, the researcher conducted the test of linearity to establish if the independent and dependent variables were linear or not.

**Table 7: ANOVA**

		Sum of Squares	df	Mean Square	F	Sig.	
Examination score marks * Open mindedness to people from different cultures.	Between Groups	(Combined)	314.355	4	78.589	2.244	.067
		Linearity	261.076	1	261.076	7.455	.007
		Deviation from Linearity	53.278	3	17.759	.507	.678
	Within Groups	5673.430	162	35.021			
	Total	5987.784	166				
Examination score marks * Free interactions with native students and lecturers asking questions.	Between Groups	(Combined)	74.548	4	18.637	.511	.728
		Linearity	47.186	1	47.186	1.293	.257
		Deviation from Linearity	27.363	3	9.121	.250	.861
	Within Groups	5913.236	162	36.501			
	Total	5987.784	166				
Examination score marks * A feeling of enjoyment towards differences between one's culturally distinct counterparts and oneself.	Between Groups	(Combined)	450.553	4	112.638	3.295	.013
		Linearity	230.246	1	230.246	6.736	.010
		Deviation from Linearity	220.307	3	73.436	2.148	.096
	Within Groups	5537.231	162	34.180			
	Total	5987.784	166				
Examination score marks * Discussion of prejudice towards foreign culture with my fellow students	Between Groups	(Combined)	418.901	4	104.725	3.048	.019
		Linearity	150.728	1	150.728	4.387	.038
		Deviation from Linearity	268.173	3	89.391	2.601	.054
	Within Groups	5532.231	161	34.362			
	Total	5951.133	165				
Examination score marks * Attendance of campus events and social activity organized at the university.	Between Groups	(Combined)	416.172	4	104.043	3.025	.019
		Linearity	314.421	1	314.421	9.142	.003
		Deviation from Linearity	101.752	3	33.917	.986	.401
	Within Groups	5571.612	162	34.393			
	Total	5987.784	166				



If the value of significant- Deviation from linearity is greater than 0.05 then the relationship between the independent and dependent variable is linear. The p values of deviation from reality for all the independent variable and the dependent variable were greater than 0.05(open mindedness to people from different cultures-.678; free interactions with native students and lecturers asking questions-0.861; a feeling of enjoyment towards differences between one's culturally distinct counterparts and oneself-0.096; discussion of prejudice towards foreign culture with my fellow students-0.038; attendance of campus events and social activity organized at the university-0.401) thus they were linear. It was appropriate therefore to apply correlation and linear regression analysis.

### Multi-collinearity Statistics

Collinearity diagnostics were conducted to assess multi-collinearity which means that there are high inter-correlations among the independent variables. An indication of multicollinearity impedes making reliable statistical inferences.

**Table 8: Collinearity Statistics**

	Collinearity Statistics	
	Tolerance	VIF
Giving positive responses to my culturally-different counterpart during our interactions	.975	1.026
Avoid situations where I will have to deal with culturally different persons.	.975	1.026

Detection of multicollinearity is through the values of tolerance and its reciprocal Variance Inflation Factor where tolerance values of less than 0.2 and VIF values of above 10 indicate multicollinearity. All the variables had acceptable tolerance and VIF values thus had no multicollinearity. Reliable statistical inferences could therefore be made.

### Summary

Majority of the students in this study originated from urban areas with only 37% coming from rural areas. Majority of the student were male and only 21% were female. Majority of the students comprising of 70%) course duration was less than two years, with 29% ranging between two and five years and 1% was above five years. Seventy percent (70%) of the students were enrolled in a Master of Science program and fifty-one (30%) were enrolled in a PhD program. Many of the students 51 percent were first years, 42 percent were second years, six percent (6%) were third years and only 1 was a fourth year student. Many of the students had one semester experience, 28 percent had two semesters experience, 10 percent had three semesters experience and the remaining 14 percent had four and above semesters experience.

Guineans was the best culture description, the second was Nigeria, third were Malawian and Rwanda. Many of the students were ranked as none curricular communication class, 33 percent were ranked class one, seventeen percent (17%) class two, fifteen percent (15%) percent class

three and two percent (2%) were ranked other. Open mindedness of people from different cultures, freely interaction with native students, a feeling of enjoyment towards differences cultures, discussion of prejudices towards foreign cultures, participation in class pair work activities, difficulty in sharing one's experience with students from foreign cultures, attendance at campus events and activities organized at the university, and developed positive and interpersonal relationships with others enhances PAUSTI international students' academic performance. Cultural identity positively, positive response to culturally differences, cultural sensitivity with other people culturally, understanding of unclear meaning during interaction and avoidance of situations where one will have to deal with culturally different persons positively affected PAUSTI international academic performance. Interpretation of experience from one's own perspective while considering more than one world-view, demonstrating ability to act in supportive manner, paying attention to nonverbal cues when interacting with people of different, asking whenever I encounter anything that I don't understand or when they lack the necessary cultural knowledge, repetition of a sentence to confirm what one who thinks is being said by people from different culture, involvement in research on cultural norms, standards and communication methods for a particular locality a head of time enhances academic performance.

Initiation and developing interaction with individuals from other cultures, avoidance of judgement during personal interaction with people of different culture, seeing value in suspension of judgement, interpretation of experience from one's own perspective, considering more than one world-view, demonstrating ability to act in supportive manner, a clear understanding of the complexity of elements important to members of a culture in relation to history, values and practices positively impacts on academic performance. Academic performance factors relating to developed positive interpersonal relationships with others, positive response to culturally different counterparts during interactions, knowing what to say when interacting with people from other cultures and asking whenever one encounter anything that she or he doesn't understand or when he or she lack the necessary cultural knowledge, a clear understanding of the complexity of elements important to members of a culture in relation to history, values, beliefs and practise were the most prevalent effects of PAUSTI international students' academic performance. There is a significant relationship between attitude, inter-cultural communication, cultural awareness, inter-cultural knowledge, inter-cultural communication competence and PAUSTI international students' academic performance.

The overall model was not statistically significant and reliable. The overall model was therefore defined as;

$$Y = 49.178 + 5.192X_1 + 0.85X_2$$

### **Conclusions**

Firstly the research study concluded that inter-cultural knowledge was crucial for international students' academic performance. The students needed to have knowledge of cultural world view frame works and knowledge of their own values and norms. Intercultural knowledge cannot be excluded from academic performance for international students at PAUSTI. Secondly, the study

concluded that academic performance for international students at PAUSTI was highly dependent on intercultural attitude. It didn't solely depend on open mindedness of people from different cultures, but a combination of attributes such as curiosity and empathy. Thirdly, the study concluded that it was imperative that intercultural communication skills contributed immensely to the academic performance for international students at PAUSTI. This included paying attention to non-verbal cues, listening skills and analyzing skills. This was very key in the sense that one should not rush into making conclusions but ask whenever one encountered anything that was not clear. Lastly, the study concluded that intercultural awareness was also crucial in the academic performance for international students at PAUSTI. There was need among the students to understand the differences that existed in the students' culture and the host country as well. Sensitivity to divergent perspectives was also very necessary because what is right in one culture may be wrong in another culture

### **Recommendations**

The study was able to establish that intercultural communication competence (Intercultural knowledge, Intercultural attitude, Intercultural communication skills and intercultural awareness) positively affected academic performance for international students at PAUSTI. Intercultural communication competence is a necessity in the 21<sup>st</sup> century as companies, agencies, and institutions interact with people from different cultures. The study therefore recommends that the findings be shared with the policy makers to fashion policies that promotes intercultural communication competence. According to the findings 77% of the Academic performance for international students at PAUSTI can be explained by the independent variables. (Intercultural knowledge, intercultural attitude, intercultural communication skills and intercultural awareness) The remaining 23% of the variation in the academic performance is affected by other variables not included in the study. The study therefore recommends further research on other factors that affect academic performance that are not captured in the findings.

## REFERENCES

- Alfred C. Aman, Jr., & Micah J. Nichols. (2012). Globalization and Migration: Indiana University Maurer School of Law, Bloomington, Indiana April. *Indiana Journal of Global Legal Studies*, 19(1), 1-1.
- Awang, M. M., Ahmad, A. D., Bukar, N. A., Ghani, S. A., Yunus, A. N., Ibrahim, M.A. H., Ramulus, J.C., Saad, C. P., and Rahman, M. J. A. (2016). Students' attitude and their academic performance in manhood education. *International Educational Studies*, Vol.6, No. 11, 2016. ISSN: 1913 -9020, E-ISSN: 1913 -9039, pp. 21 - 27.
- Bennett, J., & Salonen, R. (2007). Resource Review: *Intercultural Communication*
- Bridges, D., Trede, F., & Bowles, W. (2009). Preparing Students for International Placements: Developing Cultural Competence, Ethical Practice and Global Citizenship. Australia: Charles Sturt University, Education for Practice Institute.
- Chun, D. (2011). Developing Intercultural Communicative Competence through Online Exchanges. *CALICO Journal*, 28(2), 392-419.
- Dooley, K. (2009). *Intercultural Conversation: Building Understanding Together*. England: Cambridge University Press
- Gudykunst, W. B. (1995). *Anxiety/Uncertainty Management (AUM) Theory: Current*
- Hill, B. (2013). American council of education: Center for internationalization and global engagement. Retrieved from <http://www.acenet.edu/news-room/Pages/Center-for-Internationalization-and-Global-Engagement.aspx>.
- International Association of Universities (2012). Affirming academic values in internationalization of higher education: A call for action Retrieved from [http://www.iauaiu.net/sites/all/files/Affirming\\_Academic\\_Values\\_in\\_Internationalization\\_of\\_Higher\\_Education.pdf](http://www.iauaiu.net/sites/all/files/Affirming_Academic_Values_in_Internationalization_of_Higher_Education.pdf).
- Rahman, F., & Iqbal, A. (2010) Contemporary Issues In Education Research – October 2010 Volume 3, Number 10 39 Impact Of awareness On Performance Of Students In Chemistry
- Thomson, R., Murachver, T., & Green, J. (2001). *Where is the Gender in Gendered?*