

BRAIN DRAIN AND PERFORMANCE OF STATE-OWNED UNIVERSITIES IN SOUTH EAST, NIGERIA

Awoke Chigozirim Florence, Prof N.M. Ile, Ph.D. and Prof T. O. Enudu, Ph.D.

Department of Business Administration, Enugu state University of Science and Technology

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Abstract: The study evaluated Brain drain and performance of state universities in south East, Nigeria. The specific objectives were to; Examine the relationship between leaving of educated staff for quality of life and quality of teaching and learning; evaluate the relationship between migration of high-quality lecturers for high salaries and visibility and identify the relationship between skilled staff movement to access advanced technology and mobility of academic researchers of state-owned universities in South East, Nigeria. The study used the survey approach and simple random sampling. The primary source of data was the administration of the questionnaire. The population of the study is three thousand two hundred and fifty (3250) which consists of selected lecturers both male and female of different carders in the selected universities. The sample size of three hundred and forty-four (344) was determined using Cochran (1963) sampling technique at a 5 percent margin of error. Two hundred and eighty-one (281) staff returned the questionnaire accurately filled. Data were analyzed by mean score and standard deviation. The hypotheses were analyzed using the Pearson correlation coefficient (r). The findings indicated There was significance positive relationship between leaving of educated staff for quality of life and quality of teaching and learning in state owned universities in South East, Nigeria, ($r=.579 < .869$, $p < .05$). There was significance positive relationship between migration of high quality lecturers for high salaries and visibility of state owned universities in South East, Nigeria, ($r=.725 < .841$, $p < .05$). There was significance positive relationship between Skilled staff movement to access advanced technology and mobility of academic researchers staff of state owned universities in South East, Nigeria, ($r=.390 < .907$, $p < .05$). The study concluded that the departure of educated staff, skilled staff movement, and migration of lecturers had significant negative relationship with quality of teaching and learning, visibility and mobility of academic researcher's staff in state owned universities in South East, Nigeria.

Keywords: Brain drain, mobility, performance, migration staff movement

SECTION ONE

INTRODUCTION

1.1 Background of the study

Quality teaching has become an issue of importance as the landscape of higher education has been facing continuous changes. The absence of human capital is a phenomenon that has been of concern to academics and development practitioners. Brain drain is a slang term indicating substantial emigration or migration of individuals due to turmoil within a nation, the existence of favorable professional opportunities in other countries, or from a desire to seek a higher standard of living. It represents the loss of highly skilled professionals from a source country to a recipient country. Apart from all the damages brain Drain causes, it also has positive effects on society, especially for the source countries. In this case, when the possibility of migration is real, the level of education in the country rises. Thereby increasing the labour force of skilled and potential workers finding their way to the academic sectors (Ehezi, 2021). The economy of a developing country may suffer if there is a large outflow of skilled workers. There are many considerations that a migrant considers when deciding whether or not to relocate to a more developed country. Typically, brain drain is referred to as an issue that must be addressed. The phenomenon, on the other hand, has advantages. When people relocate from less developed countries to more developed countries, they acquire new skills and experiences that they can use when they return to their native country. In addition, remittances, which are money that migrants send back to their home countries, can support the economies of such countries (Burtler, Francis and Shinn, 2022).

Brain drains involves the mass migration of skilled professions from an underdeveloped region to a developed region. It affects various sectors of a nation including the educational aspect. This in turn may be disastrous to the upbringing of young scholars in the depleted nation. A university is an institution of higher learning providing facilities for teaching and research and authorized to grant academic degrees. State owned universities are universities of college that is in state ownership or receives significant public funds through a national or subnational government, as opposed to a private university. Whether a national university is considered public varies from one country (or region) to another, largely depending on the specific education landscape. Femi, (2009) noted that the case of brain drain seems to be overlooked within the Nigerian educational institutions. Universities are one of the most important institutions of comprehensive development. They are responsible for preparing and qualifying human resources in the light of scientific and technological progress. Faculty members in the universities are the most important elements of the educational process, and the most important reasons for the success of universities in achieving their social goals (Abdalmenem, Owda, Al hila, Abu-Naser and Al Shobaki, 2018). The Nigerian education industry is surrounded by a mirage of problems; one of such problems is brain drain syndrome.

The reason for establishing universities is to help transform the mind and skills of willing youths in order to make them useful to themselves and society at large. Lecturers stand as the driving force in which this goal can be achieved. This is because unfolding events in the lecturing profession prove that lecturing as a profession in the modern day goes beyond talk and chalk. The issue of brain drain in some key sectors of the economy is not a new phenomenon. Thus, brain drain is a situation where the highly skilled and specialized individuals leave low-paying jobs for highly- paid jobs, usually outside the country. Baridam and Baridam, (2020) proposed that the mass exodus of highly skilled manpower from Nigeria to other enabling environments of the world is a classic definition of brain drain at its most scandalous manifestation. The bad news is that while the benefitting countries of brain drain continue to improve their

skilled manpower base, the victim countries, such as Nigeria, continue to suffer from specialized manpower deficit on all fronts. In view of this backdrop the present study aimed to evaluate the brain drain and performance of state universities in south East, Nigeria.

1.2 Statement of the Problem

Brain drains of intellectuals emerges not only in the under developed or economically weak Countries but also in developed countries. Brain drain in academic section is any process that leads to educational institutions losing some or a significant number of its academic staff to other sector of the economy or to other countries. In development circles, there is a growing realization that sustainable development cannot take place without sound human capital, with education being a key component in this regard. It could be noticed that the object of brain drain is practically related to the matters of great concern.

Performance determines the end product of various activities undertaken by organization, a reflection of the way in which tangible and intangible resources are invested in the organization in order to achieve the desired goals. Nevertheless, performance challenges in the universities often leads to brain drain problems and have left a very huge impact on the educational quality. In addition to the weakness of the infrastructure and educational content, which limits the ability of state-owned universities in South East, Nigeria to develop educational performance compared to other universities the present study identifies that they encounter problems due to brain drain which includes migration of high-quality lecturers for high salaries, departure of educated staff for quality of life and skilled staff movement to access advances technology.

The high level of mass departure of highly skilled and talented individuals from the state-owned universities in South-East, Nigeria to other conducive nations of the world is a great and negative result of brain drain in the tertiary institutions. The effects of brain-drain on the higher institutions administration frustrates the administration of tertiary institutions including state owned universities. Poor quality education, high student-teacher ratio, shortage of academic staff, poor research development and poor programme development all contributes to the level of performance through which a university would be rated and as such the present study sought to evaluate the brain drain and performance of state-owned universities in South East, Nigeria.

1.3 Objectives of the study

The main objective of the study was to evaluate the Brain drain and performance of state universities in south East, Nigeria. The specific objectives were to;

- i. Examine the relationship between leaving of educated staff for quality of life and quality of teaching and learning in state owned universities in South East, Nigeria.
- ii. Evaluate the relationship between migration of high-quality lecturers for high salaries and visibility of state-owned universities in South East, Nigeria.

1.4 Research Questions

The following research question guided the study

- i. What is the relationship between leaving of educated staff for quality of life and quality of teaching and learning in state owned universities in South East, Nigeria?
- ii. What is the relationship between migration of high-quality lecturers for high salaries and visibility of state-owned universities in South East, Nigeria?

1.5 Statement of Hypotheses guided the study

The following null hypothesis guided the study

- i. There is no significance positive relationship between leaving of educated staff for quality of life and quality of teaching and learning in state owned universities in South East, Nigeria.
- ii. There is no significance positive relationship between migration of high-quality lecturers for high salaries and visibility of state-owned universities in South East, Nigeria.

1.6 Significance of the study

The study on brain drains and performance of state universities in South East, Nigeria will benefit the following **Government:** It will help the government to look into the nation's economy in other to identify those areas which are more likely to cause brain drain.

Lecturers: The study will benefit lecturers as it was carried out mainly on universities. It will to understand specifically those factors that are likely not to favour lecturers that will lead to their departure from the university and address it because once the education system of a nation starts to fall; the nation has a high tendency of falling out.

Students: Students will also benefit from the study as it addresses the challenges facing the university and methods of overcoming them. It would also help in the provision of highly skilled and talented lecturers with good subject knowledge; reduce lecturer's turnover and increase students and institutions performance.

Researchers: This present research will serve as a reference material to future researchers, academicians and students.

Review of the Related Literature

Conceptual Review

2.1 Brain

The brain is an organ that is made up of a large mass of nerve tissue that is protected within the skull. It plays a role in just about every major body system. The brain sends and receives chemical and electrical signals throughout the body (Susam,2021). Collins, (2022) established that a person's brain is the mind and the way they think and that once an individual stops using his/her brains they go stale. Also if someone has brains or a good brain, they have the ability to learn and understand things quickly, to solve problems, and to make good decisions. Different signals control different processes and the brain interprets each signal skills such as working memory, planning, organization and attention develop over time with brain maturation and with practice.

2.2 Brain Drain

A brain drains, the term often describes the departure of groups of doctors, healthcare professionals, scientists, engineers, or financial professionals. When these people leave, their places of origin are harmed in two main ways. First, expertise is lost with each emigrant, diminishing the supply of that profession. Secondly, the country's economy is harmed because each professional represents surplus spending units. Julie, Micheal and Katrina (2021) ascertained that brain drain causes countries, industries, and organizations to lose a core portion of valuable individuals. Organizational and industrial brain drain is usually a byproduct of a rapidly evolving economic landscape in which companies and industries unable to keep up with technological and societal changes lose their best workers to those that can.

2.4 Components of Brian Drain used in the study

Frederic, (2014) and Burtler, Francis and Shinn, (2022) noted that the brain drain components include migration of high-quality lecturers for high salaries, departure of educated staff for quality of life and skilled staff movement to access advanced technology.

2.4.1 Departure of Educated staff for quality of life

Lecturers' productivity can be said to be useful results obtained from efforts made by the lecturers to attain educational goals in the university setting. Thus, there is need for motivation because despite the cumbersome workload of lecturers, productivity needs to be attained but how can this be when there is little or no support from government and university management in career development through conference, seminars and constant promotion. Lecturers' productivity is seen in the morality of the students' performance in internal and external examinations. Students who graduated under a productive lecturer are known by the way they comport themselves, speak and write, (Amini and Okonmah, 2020).

2.4.2 Migration of high-quality lecturers for high salaries

The best way to improve the quality of instruction would be to lower barriers to becoming a teacher, such as certification, and to link compensation and career advancement more closely with teachers' ability to raise student performance. Mohammadi and Karupiah, (2019) noted that managers of universities must pay more attention on the significant dimensions and improve them among the academic staff in order to achieve a high level of work performance. The effect of pay may work through a selection channel (better pay attracts better candidates to teaching) and a pure motivational channel. However, little is known about the impact of wage income on the behaviour and productivity of teachers (and public sector workers in general) particularly in developing countries. Grieve and Miquel, (2018 & Ile, Otti, and Mbah ,2023)) ascertained that teachers are naturally a vital part of the learning process and interest has recently shifted to focus on how best to ensure that teachers deliver high quality instruction in the classroom. One of the mechanisms through which this can be done could be to offer teachers better pay.

2.4.3 Skilled staff movement to access advanced technology

Technically skilled individuals are often an essential part of the economy because they are responsible for the creation of innovation (Chen and Rhinehart, 2021). The lack of access to technology and everything it offers is referred to as the digital divide. Technology provides students with easy-to-access information, accelerated learning, and fun opportunities to practice what they learn. It enables students to explore new subjects and deepen their understanding of difficult concepts. As advances in technology drive globalization and digital transformation, teachers can help students acquire the necessary skills to succeed in the careers of the future (School of Education, 2020). The effective use of digital learning tools in classrooms can increase student engagement, help teachers improve their lesson plans, and facilitate personalized learning.

2.5 Performance

Academic performance is the measurement of student achievement across various academic subjects. Teachers and education officials typically measure achievement using classroom performance, graduation rates and results from standardized tests (Ballotpedia, 2022). Academic achievement is a standard prerequisite for students to progress from one level of study to another, the need for greater efficiency, productivity and quality in the higher education sector has triggered increased governmental interest towards different mechanisms of accountability, especially evaluation and performance measurement (Jussi, Elias, laila, Hanne, Lars & Anu, 2019). Institutions need to develop such a system where a conducive environment is provided to their employees within the existing resources to get better employee performance.

2.6 Components of Performance used in the study

Performance is the effective accomplishment of task. Effective performance in organizations leads to accomplishing of organizational goals and objectives. Armstrong (2010) defines performance as the

accomplishment, execution, carrying out, working out of anything ordered or undertaken leading to outputs/ outcomes (accomplishment) or achieving of results. Performance of academic staffs in universities involves teaching, research and publication, Visibility of Lecturers innovation, Graduate employability and community service. Iqbal, Rasil & Heng (2011) ascertained that Academic staff produce development solutions through innovations.

2.6.1 Quality of teaching and learning

The quality of education depends on the ability, hard work and dedication of the teacher. If a teacher fails to keep himself in touch with the rapid scientific and educational developments then he would become inefficient and ineffective as indicated in the National Education Policy, that the teacher is considered the most crucial factor in implementing all instructional reforms at the grassroots level. It is a fact that the academic qualifications, knowledge of the subject matter, competence and skills of teaching and the commitment of the teacher have effective impact on the teaching learning process. Many factors are responsible for shaping the quality teaching. These include ideological and socio-economic needs, existing structure of education system, and well-defined theories and practices of teaching and learning (Ramezanghorbani, Hajiabedin Rangraz,& Heidari, 2019) . Without good knowledge of what you are teaching, it is impossible to meet these standards in a meaningful way (Ambassador, 2019 & Ugwu,2021).

2.6.2 Visibility of state-owned universities

Visibility can be referred as the degree to which something is seen by the public. To achieve visibility in an academic field means that people know your name, think highly of your scientific contributions and are familiar with your work (Mauvais, 2016). Academic visibility relates to the dissemination, accessibility, and recognition of scholarship produced by college faculty, especially in terms of promotion and tenure criteria and academic rank. Traditionally, "visibility" was a function of printed output like books, book chapters, and peer-reviewed journal articles primarily available in academic libraries.

2.6.3 Mobility of academic researcher's staff

In recent years, some surveys of the 'academic profession' and 'researchers' have been undertaken primarily in economically advanced countries or especially in European countries that provide an overview on various modes, e.g. migration prior study, short-term student mobility and mobility for the whole degree programme, mobility in the phase of doctoral education and training, professional mobility in various stages of the professional career and finally shorter visits linked to academic and research work. All available information suggests that substantial differences exist by country and that no signs of convergence are visible. Moreover, surveys confirm that international experience is a frequently valuable asset of academic research careers but often is viewed as less beneficial than conventional wisdom suggests (Ullberg, 2015 & Ugwu,2021).

2.2 Theoretical framework

The following theories guided the study

Equity theory by John S. Adams (1960s) and Expectancy theory by Victor H. Vroom (1964).

The study was anchored on Equity Theory because it is concerned with people's perception on how they are being treated i.e Fairness in the organizations.

Equity Theory

Equity theory was first developed in the early 1960s by behavioural psychologist John S. Adams Equity theory is a theory of motivation that suggests that employee motivation at work is driven largely by their sense of fairness. Employees create a mental ledger of the inputs and outcomes of their job and then use this ledger to

compare the ratio of their inputs and outputs to others. Employees will feel frustrated and distressed if they perceive themselves as being underpaid or not being rewarded accordingly. When employees fail to achieve equity, they will target their hostility towards the organisation producing negative behaviour; this is in the hope to restore justice. According to Equity Theory, in order to maximize individuals' rewards, we tend to create systems where resources can be fairly divided amongst members of a group. Inequalities in relationships will cause those within it to be unhappy to a degree proportional to the amount of inequality (Adams, 1965).

The belief is that people value fair treatment which causes them to be motivated to keep the fairness maintained within the relationships of their co-workers and the organization. The structure of equity in the workplace is based on the ratio of inputs to outcomes.

Expectancy Theory

Expectancy theory was proposed by Victor H. Vroom in the year (1964). Expectancy theory proposes that an individual will behave or act in a certain way because they are motivated to select a specific behavior over others due to what they expect the result of that selected behavior will be. Turnover intention is related to the expectation of a lecturer such as reward, training, working conditions, and recognition. When employees join the organisation with some expectations, the chances of negative behaviours such as absenteeism or turnover intention will increase if those expectations are not met. Evaluating employees' performance is one of the most important issues that any organization will face. Issues related to evaluating performance engage different aspects, including, but not limited to, employee's behavior in the workplace, the performance appraisal system, and performance appraisal conducting style, the relation between the performance appraisal system and task descriptions and finally, the fairness of the performance appraisal process. Vroom's expectancy theory separates effort, performance and outcomes (Vroom, 1964).

2.3. Empirical Review

2.3.1 The relationship between leaving of educated staff for quality of life and quality of teaching and learning in state owned universities in South East, Nigeria.

Voss, Roediger, and Thorsten (2019). "The Desired Teaching Qualities of Lecturers in Higher Education: A Means End Analysis". The study aims to develop a deeper understanding of the teaching qualities of effective lecturers that students desire and to uncover the constructs that underlie these desire expectations and reveal the underlying benefits that students look for. A semi-standardized qualitative technique called laddering was applied that allows researchers to reach deeper levels of reality and to reveal the reasons behind the reasons. The study was conducted amongst teacher education students at a large German University of Education and laddering questionnaires were handed out to 53 students enrolled in a business management course the exploratory study gave a valuable first insight into the desired qualities of lecturers. In particular, the study results indicate that students want lecturers to be knowledgeable, enthusiastic, approachable, and friendly. Students predominately want to encounter valuable teaching experiences to be able to pass tests and to be prepared for their due to the exploratory nature of the study and the scope and size of its sample, the results outlined are tentative in nature. As the study involved only a single group of university students from one university, the results cannot be generalized to the student population as a whole profession. This study also showed that students are mainly concerned about vocational aspects of their studies and are less interested in their subject.

Ogunode and Ishaya, (2019) Effects of Brain-Drain on Higher Institutions' Administration in Nigeria. Brain-drain is one of the major problems facing Nigerian higher institutions. Many higher institutions in Nigeria are

losing their professors daily due to poor working conditions. This paper intends to discuss the effects of brain-drain on the administration of higher institutions in Nigeria. The paper looked at the concept of brain-drain. The paper identified the causes of brain-drain in the Nigerian higher institutions to include but not limited to; poor salary, unconducive working environment, poor staff development, inadequate infrastructural facilities, strike actions, insecurity and inadequate funding while the identified effects of brain-drain on the higher institutions administration to includes; poor quality education, high student-teacher ratio, shortages of academic staff, poor research development and poor programme development. The study in order to ensure higher institutions sustainability in Nigeria hereby recommended among others the following: government should increase the motivation of academic staff, implement all reached agreement with trade union groups or civil society organizations in the country, ensure adequate life and job security in all higher institutions and provide more infrastructural facilities

2.3.2 The relationship between migration of high-quality lecturers for high salaries and visibility of state-owned universities in South East, Nigeria.

Amini and Okonmah, (2020) Lecturers' Workload and Productivity in Universities in Delta State. This study investigated lecturers' workload and productivity in Universities in Delta State. Six research questions were answered and six corresponding null hypotheses were tested at 0.05 level of significance. The study adopted the correlational research design. The population of the study comprised 164 Heads of Department (HODs) in six public and private universities in Delta State. A sample of 115 HODs were drawn through stratified random sampling technique and used for the study. Two instruments titled 'Lecturers Workload Scale' (LWS) and 'Lecturers' Productivity Scale' (LPS) were used for data collection. Face and content validities of the instruments were ensured by experts. The reliability coefficients of the instruments (LWS and LPS) were determined using Cronbach Alpha reliability estimate and the reliability coefficient of the LWS was 0.72 while that for LPS was 0.74. Pearson Product Moment Correlation was used to answer research questions 1,2,3,4 and 5. The corresponding hypotheses were subjected to 0.05 alpha level of significance. Research question 6 was answered using Multiple Regression while ANOVA associated with multiple regressions were used to test hypothesis 6. It was found that, there is significant high negative relationship between lecturers teaching workload, marking workload, supervision of students' project workload, research workload and participation in community service workload and productivity in Universities in Delta State independently and jointly taken.

Sousa, Gouveia, Silva-Júnior, Ribeiro dos Santos and Avelino, (2020) Promotion of the Quality of Life of Workers in a Higher Education Institution: A Scope Review". The present study aimed to map the evidence to provide an overview of actions implemented/executed and scales used in public higher education institutions to promote worker health. A scoping review based on the PCC (Population, Concept, and Context) mnemonic was conducted in PubMed, CINAHL, Scopus and Virtual Health Library (VHL). Population included workers from a higher education institution, the concept referred to studies focusing on the assessment of quality of life and health promotion actions and the context to higher education institutions. Electronic searches were held on December 2019. A qualitative synthesis of the data extracted from included studies (i.e. author, year, study design, sample, country, aims, action implemented/performed, thematic focus, evaluation) was performed. Electronic searches retrieved 3,330 articles that were screened by titles and abstracts. Of these, 34 studies were fully appraised, of which four reported that actions implemented/executed related to sedentariness, posture and stress. The studies show 49 scales were identified to measuring at least one quality of life item. Through this scoping review the available evidence to provide an overview of actions implemented/executed and scales used in public higher education institutions to promote worker health. Future studies should consider more rigorous

designs and objective measures to measure the quality of life of these professionals, and develop target interventions based on factors associated with the work. It is also necessary to evaluate whether the strategies work.

2.4 Gap in Literature

The gap in literature identified by present study was that there were few works on areas of brain drain and performance. The reviewed studies were also mostly done outside Enugu State and were also not recent. Furthermore, these reviewed literatures were mainly qualitative studies but the present study will also adopt the quantitative and qualitative methods and further be analysed using statistical tools. The empirical reviewed were also mainly in education sector.

SECTION THREE

METHODOLOGY

3.1 Research Design

The study employed survey research design because people's opinion was sought using questionnaire, and their views used to justify the current practice, and consequently suggest better ways for improvement. The knowledge allows generalization to be made about characteristics, opinions, beliefs, attitudes, etc. of the entire population to be studied.

A survey questionnaire was used to collect both quantitative and qualitative data from the selected academic staff of these five universities. The aim is to identify, describe and compare variables to ascertain differences and relationships of the dependent and independent variables to be use for hypotheses with appropriate and amenable test statistics.

3.2. Sources of Data

In the course of carrying out the research, two sources were used to gather the necessary information. These includes: primary and secondary sources of data.

3.2.1 Primary Sources of Data

The primary data was collected through systematically planned questionnaire administered to the sampled lecturers of the university under study.

3.2.2 Secondary Sources of Data

The secondary sources of data for the study will be collected from published sources like: textbooks, journals, internet and statistical bulletins etc.

3.3. Area of the Study

The field of study includes a political or geographical area including its history, geography, language, and general culture. The field of the present study was (5) states universities in the South East of Nigeria. The universities include: Enugu State University of Science and Technology, Ebonyi State University, Imo State University, Anambra State University of Science and Technology, and Abia State University Uturu, Okigwe.

3.4 Population of the Study

The study was limited to five (5) states universities in the South East of Nigeria. The universities include: Enugu State University of Science and Technology, Ebonyi State University, Imo State University, Anambra State University of Science and Technology, and Abia State University Uturu, Okigwe. The population of the study is three thousand two hundred and fifty (3250) which consists of selected lecturers both male and female of different carders in the selected universities.

Table 3.1

S/N	NAME OF UNIVERSITY	LOCATION	ASS.LECT.	LECTURE II	LECTURER I	SENIOR LECTURER	ADJ. LECTURE	READER	PROF.	NO OF STAFF
1	Enugu State University of Science and Technology	Enugu State	20	234	189	127	75	35	40	698
2	Imo State University, Owerri.	Imo State	8	233	115	113	88	42	34	633
3	Abia State University, UturuOkigwe,	Abia State	12	213	138	121	91	38	37	650
4	Ebonyi State University, Abakaliki,	Ebonyi State	27	220	128	127	92	29	36	659
5	Anambra State University, Igbariam,	Anambra State	9	203	124	121	98	23	32	610
	Total									3250

Universities and the Population for the Study.

Source: Field survey, 2022.

The study was limited to five (5) states universities in the South East of Nigeria. The universities include: Enugu State University of Science and Technology, Ebonyi State University, Imo State University, Anambra State University of Science and Technology, and Abia State University Uturu, Okigwe. The population of the study is three thousand two hundred and fifty (3250) which consists of selected lecturers both male and female of different carders in the selected universities.

3.5 Sample Size Determination

Considering the relatively large size of the population, using the entire population was cumbersome, hence the need for sampling. In dealing with large population, the sample size can be determined using normal approximation to the binomial distribution. The approximation is premised on the fact that the population is large and the sample is small. For instance, when you are to sample 300 individuals, for the purpose of accuracy, a smaller sample number is required thus using the normal approximation to the binomial. Therefore, to determine the sample size for small populations, we use the normal approximation to the hyper geometric distribution. Conchram (1977) the sample size formula includes:

$$n = \frac{Z^2 N p q}{N e^2 (N-1) + Z^2 p q}$$

Where:

n = the required sample size

N = the population size

P and q = the population proportions. It is set at 0.5

Z = the value that specifies the level of confidence. Typical levels of confidence for surveys sets are 95%, in which case z is set to 1.96.

e = Error margin. In this study e is set with an accuracy of plus or minus 5%, that is, E is set to 0.05.

$$n = \frac{1.96^2 \times 3250 \times 0.5 \times 0.5}{3250 (0.05^2) + 1.96^2 \times 0.5 \times 0.5} = \frac{3.8416 \times 3250 \times 0.5 \times 0.5}{9.085} = \frac{3121}{9.085} = 343.5$$

Therefore, the sample size for the study is 344

3.5. Sampling Technique

For the purpose of the study, the actual population was three thousand, two hundred and fifty (3250) staff. However, to ensure that the sample is represented of each University, the proportionate stratified random sampling technique was used to determine the number of selected academic staff from each of the five Universities. This was to ensure a fair representation of the respondents in each stratum of the sample for the study. Bowley's (1937) proportional allocation statistic was utilized to ensure equitable representation of the Universities. Bowley's (1937) fomular:

$$N_h = \frac{n \times N_h}{N}$$

Where nh = number of questionnaire allocated to each of the institution

n = Total sample size

Nh = Number of proposed lecturers to be used from the selected Universities

N = Population size.

Table 3. 2: Questionnaire Allocation to Each University

	Organisations	Population	Calculation	Sample size
1.	Enugu State University of Science and Technology	698	$\frac{698 \times 344}{3250} =$	74
2.	Imo State University, Owerri.	633	$\frac{633 \times 344}{3250} =$	67
3.	Abia State University, Uturu Okigwe,	650	$\frac{650 \times 344}{3250} =$	69
4.	Ebonyi State University, Abakaliki,	659	$\frac{659 \times 344}{3250} =$	70
5.	Anambra State University, Igbariam,	610	$\frac{610 \times 344}{3250} =$	65
	Total	3250		344

Source: Author's field work 2022

1.6 Method of Data Collection and Distribution

The instrument for data collection in the study was structured questionnaire. The measuring instruments for each of the attitudinal variables were developed and designed on a 5-point Likert Scale of Strongly Agree (SA), Agree (A), Neutral (U), Disagree (D) and Strongly Disagree (SD) with their corresponding weights of 5, 4, 3, 2 and 1 respectively.

3.8. Data Analyses Technique

Data were analyzed using descriptive statistics such as the mean and standard deviation. The hypotheses were tested using the Pearson correlation coefficient(r).

SECTION FOUR

DATA PRESENTATION, ANALYSES AND INTERPRETATION

Table 4.1: Distribution and Returned Questionnaire

4.1 Distribution and returned Questionnaire

The chapter presents and analyzes the data collected for the study. The presentation and interpretation of data were based on the questionnaire administrated to the staff of the Universities in Southeast, Nigeria.

Table 4.1 Distribution and Return of the Questionnaire

Firms	Distributed	No Returned	percent	No not Returned	Percent
1. Enugu State University of Science and Technology	74	56	21	18	5
2. Imo State University, Owerri.	67	60	17	7	1
3. Abia State University, Uturu Okigwe,	69	53	15	16	4
4. Ebonyi State University, Abakaliki,	70	62	18	8	1
5. Anambra State University, Igbariam,	65	46	13	19	5
Total	344	281	84	63	16

Source: From the questionnaire administration, 2022

Three hundred and forty four (344) copies of the questionnaire were distributed to the respondents and two hundred and eighty one (281) copies were returned representing eighty-four (84%) percent, while sixty three (63) copies of the questionnaire were not returned representing sixteen percent (16%). This shows a high rate of the respondents.

4.2 The relationship between leaving of educated staff for quality of life and quality of teaching and learning in state owned universities in South East, Nigeria.

Table 4.2.1 shows the relationship between leaving of educated staff for quality of life and quality of teaching and learning in state owned universities in South East, Nigeria.

Table 4.2.1: Responses to research question one on the relationship between leaving of educated staff for quality of life and quality of teaching and learning in state owned universities in South East, Nigeria.

		5 SA	4 A	3 N	2 DA	1 SD	Σ FX	- X	SD	Decision
1	There is loss of value added which could have be achieved in the country	600 120 42.7	364 91 32.4	51 17 6.0	32 16 5.7	37 37 13.2	1084 281 100%	3.86	1.374	Agree
2	Quality labour or workforce is reduced in the university	575 115 40.9	352 88 31.3	57 19 6.8	44 22 7.8	37 37 13.2	1065 281 100%	3.79	1.392	Agree
3	Limited access to resources and drawbacks are investable	320 64 22.8	584 146 52.0	51 17 6.0	40 20 7.1	34 34 12.1	1029 281 100%	3.66	1.246	Agree
4	Bringing a candidates knowledge of a subject may decline	765 153 54.4	160 40 14.2	81 27 9.6	52 26 9.3	35 35 12.5	1093 281 100%	3.89	1.458	Agree
5	The movement of lecturers for economic factors creates knowledge vacuum	450 90 32.0	540 135 48.0	45 15 5.3	30 15 5.3	26 26 9.3	1091 281 100%	3.88	1.188	Agree
Total Grand mean and standard deviation								3.816	1.3316	

Source: Field Survey, 2022

Table 4.2.1, 211 respondents out of 281 representing 75.1 percent agreed that there is loss of value added which could have been achieved in the country with mean score of 3.86 and standard deviation of 1.374. Quality labour or workforce is reduced in the university with 203 respondents representing 72.2 percent agreed with mean score of 3.79 and standard deviation of 1.392. Limited access to resources and drawbacks are inevitable with 210 respondents representing 74.8 percent agreed with mean score of 3.66 and standard deviation of 1.246. Bringing a candidate's knowledge of a subject may decline with 193 respondents representing 68.6 percent agreed with mean score of 3.89 and 1.458. The movement of lecturers for economic factors creates knowledge vacuum with 225 respondents representing 80.0 percent agreed with a mean score of 3.88 and standard deviation of 1.188.

4.2.2 The relationship between migration of high-quality lecturers for high salaries and visibility of state-owned universities in South East, Nigeria.

Table 4.2.2 shows the relationship between migration of high-quality lecturers for high salaries and visibility of state-owned universities in South East, Nigeria

Table 4.2.2: Responses to research question one the relationship between migration of high-quality lecturers for high salaries and visibility of state-owned universities in South East, Nigeria

		5	4	3	2	1	ΣFX	-	SD	Decision
		SA	A	N	DA	SD		X		
1	The departure of educated lecturers makes teaching inaccessible	340 68 24.2	480 120 42.7	48 16 5.7	106 53 18.9	24 24 8.5	998 281 100%	3.55	1.275	Agree
2	There is discouragement of viable career path to range of graduates	400 80 28.5	412 103 36.7	36 12 4.3	124 62 22.1	24 24 8.5	996 281 100%	3.54	1.333	Agree
3	The actual knowledge lecturer is expected to teach is lost	305 61 21.7	404 101 35.9	78 26 9.3	128 64 22.8	29 29 10.3	944 281 100%	3.36	1.321	Agree
4	Making things easier and understandable for students becomes difficult	255 51 18.1	520 130 46.3	15 5 1.8	124 62 22.1	33 33 11.7	947 281 100%	3.37	1.322	Agree
5	Loss of good lecturer reduces model for interactions among students and other lecturers	350 70 24.9	396 99 35.2	27 9 3.2	124 62 22.1	41 41 14.6	938 281 100%	3.34	1.430	Agree
Total Grand mean and standard deviation								3.432	1.3362	

Source: Field Survey, 2022

Table 4.2.2, 188 respondents out of 281 representing 66.9 percent agreed that the departure of educated lecturers makes teaching inaccessible with mean score of 3.55 and standard deviation of 1.275. There is discouragement of viable career path to range of graduates with 183 respondents representing 65.2 percent agreed with mean score of 3.54 and standard deviation of 1.333. The actual knowledge lecturer is expected to teach is lost with 162 respondents representing 57.6 percent agreed with mean score of 3.36 and standard deviation of 1.321.

Making things easier and understandable for students becomes difficult with 181 respondents representing 64.4 percent agreed with mean score of 3.37 and 1.322. Loss of good lecturer reduces model for interactions among students and other lecturers with 169 respondents representing 60.1 percent agreed with a mean score of 3.34 and standard deviation of 1.430.

4.3 Test of Hypotheses

4.3.1 Hypothesis One: There is no significance positive relationship between leaving of educated staff for quality of life and quality of teaching and learning in state owned universities in South East, Nigeria.

Table 4.3.1.1 shows the correlations between leaving of educated staff for quality of life and quality of teaching and learning in state owned universities in South East, Nigeria

Correlations

		There is loss of value added which could have been achieved in the country	Quality labour or workforce is reduced in the university	Limited access to resources and drawbacks are inevitable	Bringing a candidates knowledge of a subject may decline	The movement of lecturers for economic factors creates knowledge vacuum
There is loss of value added which could have been achieved in the country	Pearson Correlation Sig. (2-tailed) N	1 281	.869** .000 281	.819** .000 281	.698** .000 281	.631** .000 281
Quality labour or workforce is reduced in the university	Pearson Correlation Sig. (2-tailed) N	.869** .000 281	1 281	.813** .000 281	.733** .000 281	.637** .000 281
Limited access to resources and drawbacks are inevitable	Pearson Correlation Sig. (2-tailed) N	.819** .000 281	.813** .000 281	1 281	.746** .000 281	.579** .000 281
Bringing a candidates knowledge of a subject may decline	Pearson Correlation Sig. (2-tailed) N	.698** .000 281	.733** .000 281	.746** .000 281	1 281	.615** .000 281
The movement of lecturers for economic factors creates knowledge vacuum	Pearson Correlation Sig. (2-tailed) N	.631** .000 281	.637** .000 281	.579** .000 281	.615** .000 281	1 281

** Correlation is significant at the 0.01 level (2-tailed).

Table 4.3.1. Showed the Pearson correlation matrix on the **leaving of educated staff for quality of life and quality of teaching and learning in the institution** showing the correlation coefficients, significant values and the number of cases. The correlation coefficient shows $.579 < .869$. This value indicates that the correlation is significant at 0.05 level (2 tailed) and implies that **there was significance relationship between leaving of educated staff for quality of life and quality of teaching and learning in state owned universities in South East, Nigeria**, ($r = .579 < .869$). The computed correlations coefficient is greater than the table value of $r = .000$ with at alpha level for a two-tailed test ($r = .579 < .869$, $p < .05$).

Decision Rule

The decision rule is to accept the null hypothesis if the computed r is less than the tabulated r otherwise reject the null hypothesis.

Decision

Since the computed ($r = .579 < .869$) is greater than the table value of .000, we reject the null hypothesis. Therefore, we concluded that **there was significance relationship between** leaving of educated staff for quality of life and quality of teaching and learning in state as reported in the probability value of ($r = .579 < .869$, $p < .05$).

4.3.2.1 Hypothesis Two: There is no significance positive relationship between migration of high quality lecturers for high salaries and visibility of state owned universities in South East, Nigeria.

Table 4.3.2.1 shows the correlations between migration of high quality lecturers for high salaries and visibility of state owned universities in South East, Nigeria

Correlations

		The departure of educated lecturers makes teaching inaccessible	There is discouragement of viable career path to range of graduates	The actual knowledge lecturer is expected to teach is lost	Making things easier and understandable for students becomes difficult	Loss of good lecturer reduces model for interactions among students and other lecturers
The departure of educated lecturers makes teaching inaccessible	Pearson Correlation Sig. (2-tailed) N	1 281	.841** .000 281	.723** .000 281	.806** .000 281	.749** .000 281
There is discouragement of viable career path to range of graduates	Pearson Correlation Sig. (2-tailed) N	.841** .000 281	1 281	.764** .000 281	.781** .000 281	.830** .000 281
The actual knowledge lecturer is expected to teach is lost	Pearson Correlation Sig. (2-tailed) N	.723** .000 281	.764** .000 281	1 281	.866** .000 281	.725** .000 281
Making things easier and understandable for students becomes difficult	Pearson Correlation Sig. (2-tailed) N	.806** .000 281	.781** .000 281	.866** .000 281	1 281	.821** .000 281
Loss of good lecturer reduces model for interactions among students and other lecturers	Pearson Correlation Sig. (2-tailed) N	.749** .000 281	.830** .000 281	.725** .000 281	.821** .000 281	1 281

** . Correlation is significant at the 0.01 level (2-tailed).

Table 4.3.2. Showed the Pearson correlation matrix on migration of high quality lecturers for high salaries and visibility of the institutions showing the correlation coefficients, significant values and the number of cases. The correlation coefficient shows $.725 < .841$. This value indicates that the correlation is significant at 0.05 level (2 tailed) and implies that **there was significance relationship between** migration of high quality lecturers for high salaries and visibility of state **owned universities in South East, Nigeria.**, ($r = .725 < .841$). The computed correlations coefficient is greater than the table value of $r = .000$ with at alpha level for a two-tailed test ($r = .725 < .841$, $p < .05$).

Decision Rule

The decision rule is to accept the null hypothesis if the computed r is less than the tabulated r otherwise reject the null hypothesis.

Decision

Since the computed ($r = .725 < .841$) is greater than the table value of .000, we reject the null hypothesis. Therefore, we concluded that **there was significance positive relationship between** migration of high quality

lecturers for high salaries and visibility of state owned universities in South East, Nigeria as reported in the probability value of ($r=.725 < .841$, $p<.05$).

4.4 Discussion of Findings

4.4.1 The relationship between leaving of educated staff for quality of life and quality of teaching and learning in state owned universities in South East, Nigeria.

From the result of hypothesis one, the computed ($r=.579 < .869$) is greater than the table value of .000, we reject the null hypothesis. Therefore, we concluded that **there was significance relationship between** leaving of educated staff for quality of life and quality of teaching and learning **in state owned universities in South East, Nigeria** as reported in the probability value of ($r=.579 < .869$, $p<.05$). In the support of the result, in the literature review, Ogunode and Ishaya, (2019) Effects of Brain-Drain on Higher Institutions' Administration in Nigeria. Brain-drain is one of the major problems facing Nigerian higher institutions. Many higher institutions in Nigeria are losing their professors daily due to poor working conditions. The paper identified the causes of brain-drain in the Nigerian higher institutions to include but not limited to; poor salary, unconducive working environment, poor staff development, inadequate infrastructural facilities, strike actions, insecurity and inadequate funding while the identified effects of brain-drain on the higher institutions administration to includes; poor quality education, high student-teacher ratio, shortages of academic staff, poor research development and poor programme development. The study in order to ensure higher institutions sustainability in Nigeria hereby recommended among others the following: government should increase the motivation of academic staff, implement all reached agreement with trade union groups or civil society organizations in the country, ensure adequate life and job security in all higher institutions and provide more infrastructural facilities

4.4.2 The relationship between migration of high-quality lecturers for high salaries and visibility of state-owned universities in South East, Nigeria.

From the result of hypothesis two, the computed ($r=.725 < .841$) is greater than the table value of .000, Therefore, we concluded that **there was significance positive relationship between** migration of high quality lecturers for high salaries and visibility of **state owned universities in South East, Nigeria** as reported in the probability value of ($r=.725 < .841$, $p<.05$). In the support of the result, in the literature review, Amini and Okonmah, (2020) Lecturers' Workload and Productivity in Universities in Delta State. This study investigated lecturers' workload and productivity in Universities in Delta State. It was found that, there is significant high negative relationship between lecturers teaching workload, marking workload, supervision of students' project workload, research workload and participation in community service workload and productivity in Universities in Delta State independently and jointly taken. It was recommended among others that lecturers should always ensure that their teaching activities are well prioritized so as to give adequate attention to the learning needs of students.

Summary of Findings, Conclusion, Recommendation

5.1 Summary of Findings

- i. There was significance positive relationship between leaving of educated staff for quality of life and quality of teaching and learning in state owned universities in South East, Nigeria, ($r=.579 < .869$, $p<.05$).
- ii. There was significance positive relationship between migration of high quality lecturers for high salaries and visibility of state owned universities in South East, Nigeria, ($r=.725 < .841$, $p<.05$).

5.2 Conclusion

The study concluded that the departure of educated staff, skilled staff movement, and migration of lecturers had significant negative relationship with quality of teaching and learning, visibility and mobility of academic researcher's staff in state owned universities in South East, Nigeria. Thus, brain drain is a situation where the highly skilled and specialized individuals leave low-paying jobs for highly- paid jobs, usually outside the country. Baridam and Baridam, (2020) noted the mass exodus of highly skilled manpower from Nigeria to other enabling environments of the world is a classic definition of brain drain at its most scandalous manifestation. The bad news is that while the benefitting countries of brain drain continue to improve their skilled manpower base, the victim countries, such as Nigeria, continue to suffer from specialized manpower deficit on all fronts.

5.3 Recommendations

Based on the findings of the study, the following recommendations were proffered.

- i. The government should endeavor to have good economic environment that can sustain the educated personal in the country for retention of quality workforce.
- ii. To reduce the most highly skilled and competent individuals leaving the country, and contributing their expertise to the economy of other countries, Government should try and motivate the lecturers by paying them well.

References

- Abdalmenem S.A.M., Owda R.O., Al hila A.A., Abu-Naser S.S., and Al Shobaki M.J., (2018) Performance Efficiency of University Education from Students Perspective International Journal of Engineering and Information Systems (IJEAIS) 2 (11) 10-24
- Adams, J.S. (1965). "Inequality in social exchange". Advanced Experimental Psychology. **62**: 335–343.
- Ambassador C., (2019) Subject Knowledge -10 things every teacher educator should know'<https://www.teachfirst.org.uk/blog/subject-knowledge-10-things-every-teacher-educator-should-know-series>
- Amini P., and Okonmah A.N., (2020) Lecturers' Workload and Productivity in Universities In Delta State. International Journal of Education, Learning and Development 8 (3) 111-136
- Ballotpedia (2022)Academic performancehttps://ballotpedia.org/Academic_performance
- Baridam D.M., and Baridam L.D., (2020) University Administration and the Challenges of Brain Drain in Nigeria. IOSR Journal of Business and Management 22 (1) 57-65
- Bhasin H., (2021) Brain Drain-Definition, Types, factors and reasons <https://www.marketing91.com/brain-drain/>
- Burtler J., Francis J., and Shinn J., (2022) What is Brain Drain? [https:// study.com/ academy/ lesson/what-is-brain-drain-in-economics-definition-causes-effects-examples.html](https://study.com/academy/lesson/what-is-brain-drain-in-economics-definition-causes-effects-examples.html)
- Collins D., (2022) Brain<https://www.collinsdictionary.com/dictionary/english/brain>

- Dreeric D., and Hilel R., (2006) The brain Drain [https://www. researchgate.net /publication/228394436_The_brain_drain](https://www.researchgate.net/publication/228394436_The_brain_drain)
- Ehezi H., (2021) The effect of Brain Drain on Educational Quality <https://www.yonkertribune.com/2021/11/the-effects-of-brain-drain-on-educational-quality>
- Femi S.A., (2009) Influence of Brain drain Syndrome on learning Outcome among Undergraduates in Nigerian Universities [https://www.researchgate.net/publication/ 342624484_ Influence_of_ Brain_Drain_ Syndrome_on_learning_outcome_Among_ Undergraduates_in_Nigerian_Universities](https://www.researchgate.net/publication/342624484_Influence_of_Brain_Drain_Syndrome_on_learning_outcome_Among_Undergraduates_in_Nigerian_Universities)
- Frederic D., (2014) The brain drain from developing countries [https://wol.iza.org/ uploads/articles/31/pdfs/brain-drain-from-developing-countries.pdf](https://wol.iza.org/uploads/articles/31/pdfs/brain-drain-from-developing-countries.pdf)
- Future Learn, (2021) Subject knowledge and pedagogy for new teachers [https://www.futurelearn.com/ info/courses/preparing-for-teaching/0/steps/55074](https://www.futurelearn.com/info/courses/preparing-for-teaching/0/steps/55074)
- Grieve C., and Miquel P., (2018) The impact of teacher pay on the quality, retention and productivity of teachers in Zambia <https://www.theigc.org/project/the-impact-of-teacher-pay-on-the-quality-retention-and-productivity-of-teachers-in-zambia/>
- Iravani M., and Blvd D., (2011) Brain drain Problem: A Review [https://www.semanticscholar. org/paper/Brain-drain-Problem%3A-A-Review-Iravani-Blvd/5dae4d3d2733a0db93a972b4b78270068edd6993](https://www.semanticscholar.org/paper/Brain-drain-Problem%3A-A-Review-Iravani-Blvd/5dae4d3d2733a0db93a972b4b78270068edd6993)
- Julie Y., Micheal J. B., and Katrina M., (2021) Brain Drain [https://www. investopedia.com /terms/b/brain _drain.asp](https://www.investopedia.com/terms/b/brain_drain.asp)
- Jussi k., Elias P., laila N.B., Hanne F.H., Lars G., & Anu L., (2019) Performance in Higher Education Institutions and Its Variations in Nordic Policyperformance in Higher Education Institutions and Its Variations in Nordic Policy. In: Pinheiro, R., Geschwind, L., Foss Hansen, H., Pulkkinen, K. (eds) Reforms, Organizational Change and Performance in Higher Education. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-11738-2_2
- Khan J., (2021) European academic brain drain: A meta-synthesis. European Journal of Education 56 (2) 265-278
- Maciej D., (2022) Organizational Skills: Definition & Examples for your Resume [https://zety.com/blog/ organizational-skills](https://zety.com/blog/organizational-skills)
- Mohammadi S., and Karupiah P., (2019) Quality of work life and academic staff performance: a comparative study in public and private universities in Malaysia <https://doi.org/10.1080/03075079.2019.1652808>
- Mukelabai M.M., Jackson P., (2021) The Effects of Effective Communication on Organizational Performance Based on the Systems Theory. Open Journal of Business and Management 9 (2)7-20

- N.M.Ile, Otti, J.O., and **Mbah P.C.**, (2023) Talent Management Practices and Organizational Performance of State-Owned Universities in South East, Nigeria. *British International Journal of Business and Marketing Research* 6 (4) 18-42
- Ogunode N. J., and Ishaya S.A., (2019) Effects of Brain-Drain on Higher Institutions' Administration in Nigeria. *Pindus Journal of Culture, Literature, and ELT* Vol. (8)33-41
- Ramezanghorbani, Rangraz, M. H., & Heidari, R..N (2019). Some Effective Factors on the Webometric Status of Selected Universities of Medical Sciences: Lessons Learned from Iran. *Iranian journal of public health*, 48(6), 1116–1123.
- Salary Explorer, (2022) Quality Control and Compliance Average Salaries in Nigeria 2022<http://www.salaryexplorer.com/salary-survey.php?loc=158&loctype=1&job=44&jobtype=1>
- Schoof of Education (2020) How important is technology in Education? Benefits, Challenges and Impact on Students <https://soeonline.american.edu/blog/technology-in-education>
- Seied H.M., Saeed Y.M., Akbar H., (2011) Investigating The Relationship Between Life Quality And Productivity In Physical Education Office Employees In Zanjan Province *Procedia Social and Behavioral Sciences* 15 (2011) 3665–3668
- SkillsYouneed, (2022) Communication Skills <https://www.skillsyouneed.com/ips/communication-skills.html>
- Sousa, I., M. . Gouveia, T. R., Silva-Júnior F. L., Ribeiro dos Santos A. M. ., and Avelino F. V. (2020) Promotion of the Quality of Life of Workers in a Higher Education Institution: A Scope Review". *International Journal for Innovation Education and Research*, 8,(9) pp. 254-6, doi:10.31686/ijer.vol8.iss9.2626.
- Susam W.L., (2021) All about the brain: Anatomy, Conditions and keeping it healthy <https://www.healthline.com/human-body-maps/brain>
- Ugwu, F.I.** (2021) An Evaluation of The Effect of Strategic Planning on Management of Selected Hospitality Industry in South East Nigeria. *International Journal of Research in Management* 11 (5) 1-17.
- Ugwu, F.I.** (2021). Effect of Employee Career Development and Performance of Lectures in State Universities in South East, Nigeria. *Contemporary Journal of Social Science and Humanities* 2 (4) 1-19.
- Ullberg, E. (2015). *New Perspectives on Internationalization and Competitiveness: Integrating Economics, Innovation and Higher Education*. Cham: Springer.a1`

Voss R., and Gruber T., (2006) The desired teaching qualities of lecturers in higher education: A means end analysis <https://www.researchgate.net/publication/235299998>
_The_desired_teaching_qualities_of_lecturers_in_higher_education_A_means_end_analysis