

COMMUNICATION ERGONOMICS: A NECESSITY FOR EFFECTIVE ACADEMIC STAFF PERFORMANCE

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ABSTRACT

This study focused on communication ergonomics as a prerequisite for effective performance amongst academic staff of Federal Universities, South-South Geo-Political Zone of Nigeria. A total of 7,086 academic staff of the six Federal Universities in the South-South geographical region of Nigeria formed the population size of the study. Primary data were collected from a sample size of 1,236 respondents that were drawn from the population of study, using the Taro Yamane's sample size determination technique. The Survey research design was used in the study and the instrument for data collection was the questionnaire. The convenience sampling technique was used in selecting respondents of the study. Data obtained were analysed using descriptive statistics and multiple linear regression techniques. Results revealed that with a beta coefficient value of 0.270, prompt positive feedback had the highest significant level of influence on the academic staff performance in terms of research output. The result also showed a significantly high joint influence of prompt positive feedback, openness of communication, enhanced listening skills, face-to-face visits, use of non-verbal, informal communication and exchange of sound verbal ideas on performance (research output) It was therefore concluded that communication ergonomics has a significant positive influence on the performance outcomes of academic staff.

Keyword: Ergonomics of Communication, Academic Staff Performance, Feedback Ergonomics, Informal Communication Cues, Non-Verbal Communication

1.0 INTRODUCTION

Communication has a vital role to play in any organisations. It is one of the major ingredients for ensuring conformity to standards, building relationships as well as the achievement of organisational goals and objectives. The basic functions of management all require communication if they must be successful. Employees must be informed about what is to be done, how it is to be done, who is responsible for doing it and when it is to be done (Krammer, 1999).

Communication bridges the gap between ideas and people. It can also motivate people to react to change, adapt and achieve desired results. Without an effective communication system within an organisation, it is difficult for people to work together in attaining their common purpose. In order to avoid such situation, managers spend a major portion of their working time communicating with people (Ober, 2006). It is factual that effective

management requires the exchange of good ideas, informed opinions, and emotions through verbal and non-verbal means, which are all components of communication. These elements make communication a necessary factor in the achievement of individual or corporate objectives.

Communication has been changing with the development and utilisation of new technologies in the work environment. A good example is the application of computers in the communication system. Some people confuse communication with the channel, thinking communication to be radio, the television or the printed and new media. For them, communication is a telegram or a letter. Communication, however, is none of these things. They are merely the channels used in communication. While communication uses symbols, it is more than the symbol used (Krammer, 1999). It is a representation of reality acceptable to parties, the sender and the receiver of the message, and communication can take different forms.

Myers and Myers (1982) see communication as that binding force that permits coordination among people and thus allows for organised behaviour. Communication in this context has the ability to influence the behaviour of people towards the achievement of a particular goal. It is in the constant striving of people to understand each other in their efforts to attain common objectives that communication acquires real meaning. Communication is the transfer of information from a sender to a receiver, with the message being understood by the receiver

Communication is one of the oldest and inevitable aspects of management. Commenting on the historical development of communication, Asamu (2014) argued that the beginning of the universe was the beginning of communication. This author further argued that what had changed about communication over the years was its techniques and scope. As a result of globalisation and advancement in information technology in recent times, the scope of communication has increased to include the ergonomics component.

Ergonomics is concerned with the optimisation of socio-technical systems as well as its processes, policies and organisational structures to effective management of organisations (Canas, Velichkovsky and Velichkovsky, 2011). It is a scientific branch of study that focuses on the design of jobs, products and systems that relate to human beings. It seeks to achieve effective interaction between human and their environments (Wilson, 2010). Managers are currently applying organisational ergonomics to raise and possibly optimise employees' performance through the power of communication (Chen, 2008).

Application of ergonomics in organisations increases employees' morale, quality of work, and their performances (Khedkar and Pawar, 2015). These authors are of the view that ergonomically designed organisations also benefit from a low rate of employee turnover and absenteeism, decreased health insurance charges and reduced employees fatigue and discomfort. The practice of ergonomics influences the actions of employees through the use of ergonomically designed jobs, equipment and products. Employees derive great satisfaction in accomplishing goals and objectives when they experience comfort in the course of executing their tasks. Dul (2003) believes that employees can only experience such comfort through ergonomics. Similarly, the publication of Health and Safety Executives (HSE) (2013) summarises the benefits of ergonomics to include: reducing the likelihood of accident

occurrence; reducing the possibility of employees sustaining injuries and falling sick; and improving the performance and productivity of an organisation and their employees.

In order to achieve the health and safety goal of ergonomics, ergonomists focus on designing user-friendly and safety guaranteed products which promote the easy execution of tasks. Ergonomic design and practice improve work environment and also enable a safer workplace which is key to improved productivity of employees in every organisation (Igbojekwe, Ugo-Okoro and Agbonye, 2015). Similarly, Hendrick (1996) observed that investment in solving ergonomic problems can offer profitable results by means of increasing productivity, reduction in employee absence from work, improvement in product quality, and reduction in injury rate. By implication, both employees and organisations can benefit from the practice of ergonomics by protecting employees' health and ensuring their increased productivity. It is believed that employees perform optimally when facts about their jobs are effectively communicated to them, when they can share their experiences with others and seek support from them, and when they perceive that their jobs have been effectively designed based on their expectations and requirements (Afoegu, 2001).

Communication would be a very important tool for enhancing academic staff's performance if it is done effectively. In order to achieve this objective, Oyekan (2014) suggests that the management of tertiary institutions and academic staff members should create conducive environments for communication to achieve the desired goals. Meanwhile, Igbojekwe et al, (2015) argued that there is a decreasing atmosphere of informal and formal scholarly communication (discussions and brainstorming) among academic staff in Nigeria. This author further stressed that this situation has impacted negatively on the communication goals of academic staff in Nigeria, and efforts should be made to address this adverse trend.

The value of ergonomics is far beyond safety and health (Dul, 2003). According to this author, ergonomics can add value to an organisation's business strategy for the purpose of creating competitive products and services. He further stressed that in product creation, management of an organisation can decide to implement an ergonomic strategy by developing high quality, and user-friendly products. This can subsequently provide a competitive advantage to such an organisation. The concern for improved performance of academic staff is high. This is so because every university has a mission of being the best amongst its contemporaries. In academic institutions, academic staff are charged with the responsibility of imparting knowledge. The ranking of universities by concerned organisations has also placed every university on a competitive scale, and academic staff contribution to knowledge is a major factor in such rankings.

University managers are currently tinkering on how to increase academic performance amongst staff through the communication ergonomic paradigm. However, the possibility of success, particularly in less developed nations, has not been well established empirically. Moreover, the mechanism through which the framework of ergonomics can be used to ensure effective communication, which would, therefore, enhance the performance of academic staff has seldom been considered by researchers. This explains why management of universities are quite concerned and should be empirically guided. This study is therefore aimed at achieving two specific objectives, namely: examining the importance of ergonomics in achieving effective communication, and the influence of communication ergonomics on academic staff performance of Nigerian universities.

2.0 METHODOLOGY

It was imperative to adopt the survey methodology in this study owing to the nature of the research problem and the objectives of the study. Indeed, the survey design has provided an efficient means of obtaining data about the population parameters of academic staff in South-South Nigerian Federal Universities. The population for this study was all 7086 academic staff of select Federal Universities in the South-South region of Nigeria. Given the large population size, a sample of 1751 respondents was chosen using the Yamane model; 1236 respondents actually returned copies of their questionnaire on time. We thus, achieve a 71% response rate. The research instrument for this study was the structured questionnaire which was developed by the researcher. The instrument was made up of the profile of respondents and Likert scale-type questions on communication, ergonomics and the performance of academic staff in the universities under investigation. Inputs into the questionnaire were taken from an extensive review of relevant literature. The instrument was accordingly evaluated for face and content validity, and research output was taken as a measure of academic staff performance. Data collected from the survey were subjected to descriptive and predictive analysis. The multiple regression and Pearson's product-moment correlations were used to analysed categorical data at 0.05 level of significance.

3.0 RESULTS AND DISCUSSION

We used descriptive statistics to highlight the importance of ergonomics in achieving communication effectiveness (Percentage, mean and standard deviation) as presented on Table 1

Table 1: Descriptive Analysis of Communication ergonomics and Academic Staff performance (N= 1, 236)

Variables	Percentage	Mean	SD	Remark
Exchange of sound verbal academic ideas	31.1	3.12	1.09	Moderate
Effective listening for enhanced work output	44.9	3.13	1.09	Moderate
Regular communication amongst staff	57.4	3.29	1.13	Moderate
Keeps his/her lines of communication open by being approachable	73.3	4.18	0.79	High
Frequently use face-to-face visit to communicate a sense of belonging	73.6	4.35	0.94	High
Always ask for concrete feedback	43.8	3.45	1.02	Moderate
Listens to what I have to say and before making any conclusion	51.3	4.38	0.89	High
Makes use of the right communication channels to solve students problems	72.1	4.48	0.98	High
Average	55.93	3.80	0.99	

NB: 5 = Very high, 4 – High, 3 = Moderate, 2 = Low, 1 = Very low.

The analysis in Table 1 shows that on the average, ergonomics is somewhat moderately important ($M = 3.80$, $SD = 0.99$) for achieving communication effectiveness. However, the results also show that such communication must be open ($M = 4.18$, $SD = 0.79$), frequently use face-to-face visit to communicate a sense of belonging ($M = 4.35$, $SD = 0.94$), listens carefully before making any conclusion ($M = 4.38$, $SD = 0.89$) and be regular and timely ($M = 3.29$, $SD = 1.13$).

Our interest in determining the influence of communication ergonomics on academic staff performance was modelled using multiple regression analysis. The results are presented in Table 2.

Predictors	Beta (β)	Std. Error	T-statistics	P- value
Intercept (α)	3.748	1.636	2.291	0.000
Exchange of sound verbal academic ideas	0.163*	0.043	3.791	0.001
Effective listening for enhanced work output	0.223**	0.085	2.634	0.000
Concrete feedback	0.270**	0.078	3.462	0.000
Open lines of communication	0.230**	0.078	3.462	0.000
Use of face-to-face visit	0.134*	1.234	2.291	0.000
Informal communication cues	0.182*	0.023	3.791	0.001
Listens before making conclusion	0.236**	0.085	1.334	0.1280
R^2	0.701			
Adjusted R^2	0.688			
Std. Error	2.620			
F- value	52.825			
D. Watson	1.882			

Table 2: Influence of Communication Ergonomics on Academic Staff performance

N/B: Dependent Variable: Academic Staff performance (Research Output)

Regression coefficient (β) is significant at * $P < 0.05$, ** $P < 0.01$

From Table 2, the value of R^2 (0.701) signifies a strong influence of the dependent variables on the independent variable. However, the 0.688 adjusted R^2 value implies that 68.8% of the variance in staff research output was due to the seven communication ergonomics predictor variables prompt positive feedback, the openness of communication, enhanced listening

skills, face-to-face visits, use of non-verbal, informal communication and exchange of sound verbal ideas). It further implies that holding other exogenous variables constant, at any given time, about 68.8% of improvement in academic staff research output can be achieved by the combination of the seven variables. The regression model appears fit with F-value of 52.825 which is significant at 5% level and a Durbin Watson value of 1.882. In other words, the regression model is a robust predictor of the influence of communication ergonomics on academic staff research output in the universities under study. By implication, the management of universities could achieve a significant increase in academic staff research output by implementing the communication ergonomics variables identified in this study. This finding supports the opinion of Igbojekwe et al, (2015) who earlier noticed that there is a decreasing atmosphere of informal and formal scholarly communication (discussions and brainstorming) among academic staff and this has impacted negatively on the research goals of academic scholars in Nigeria. This finding also corroborates with the studies of Hanaysha (2016), Nebo, Nwankwo and Okonkwo (2015) and Ali and Aroosiya (2009), whose studies established significant relationships between communication ergonomic variables used in this study and the performance of employees in schools.

4.0 CONCLUSION

Findings in this study have shown that communication is the key variables for the enhancement of academic staff research output in universities. Academic staff research output is a major deciding factor in the promotion of lecturers, universities ranking, and also one of the determinant factors for students' academic success. Therefore, the research output of lecturers must undoubtedly remain a priority of the management of every university in Nigeria. If this is ensured, it is evident that management of universities in Nigeria will achieve their academic goals; lecturers and other stakeholders will also derive satisfaction. The findings underscore the fact that the performances of employees of organisations that are ergonomically designed are likely to be enhanced through such practice. This is because; the extent of the relationship established by the predictors of communication ergonomics used in this study has proven that organisations could benefit extensively from the practice of ergonomics.

Though all seven dimensions of communication ergonomic are necessary, well-defined feedback is seen as the dimension with the highest significant influence on academic staff research output. Also, keeping open lines of communication and good listening skills are essential tools for improving on and increasing the research output of academic staff. The findings also imply that management of business organisations could also rely on the ergonomics of communication (prompt positive feedback, the openness of communication, enhanced listening skills, face-to-face visits, use of non-verbal, informal communication and exchange of sound verbal ideas) to achieve quality work output of from employees. Given the findings, management should encourage and provide avenues for the thrive of effective communication amongst members of staff as this has been found to have a significant influence on the research output of employees. This is significant because the management of tertiary institutions of learning can rely on the findings of the study in this regard in making policies that could improve the research output of their academic staff. Management of the Nigerian Federal Universities should employ ergonomics ideas to strengthen their communication process and to improve the research output and general performance of their

academic staff. In this case, attention should be given to prompt positive feedback, the openness of communication, enhanced listening skills, face-to-face visits, use of non-verbal, informal communication and exchange of sound verbal ideas.

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