https://unizikentrepjournal.com

# TEACHERS' PERCEIVED INFLUENCE OF COMMUNICATION PATTERN OF PRINCIPALS ON COURAGEOUS LEADERSHIP IN PUBLIC SECONDARY SCHOOLS IN ABIA STATE

Onunkwo, Ijeoma Ogechi <u>ijeonunkwo@gmail.com</u>

\* Ngerem, Eucharia Iheoma PhD. ngeremuk@gmail.com Educational Management Michael Okpara University of Agriculture, Umudike

#### **Abstract**

This study was necessitated by the need to enhance courageous leadership in secondary schools in Abia State. The study adopted a descriptive survey design. According to Dulock (1993), descriptive survey. It was guided by two research questions and one null hypothesis. Population comprised 4904 teachers in 250 public secondary schools in Abia State. Sample size of 490 was drawn through stratified proportionate random sampling technique for proper representation. Instrument for data collection was a questionnaire structured along 4- points rating scale of very high extent (VHE) high extent (HE), low extent (LE) and very low extent (VLE). It was face and content validated by three experts. A trial - test was conducted with a population outside the study area to ascertain the reliability of the instrument. Reliability of the instrument was 0.77 obtained using Cronbach's Alpha statistic. Data were analyzed using mean and standard deviation while null hypothesis was tested using z-test statistic. Bench mark of 2.5 and above was for high extent while below it was for low extent. Findings are that 'Y' and 'wheel' communication patterns of principals influence courageous leadership to high extents and there is no significance difference between male and female teachers' responses on the influence of 'Y' and 'wheel' patterns communication on courageous leadership. Based on the conclusion of the study, it was recommended that principals should adopt the appropriate use of 'Y' and 'Wheel' communication patterns for courageous leadership in public secondary schools.

**Key words:** Perceived influence, communication pattern, principals, courageous leadership, secondary schools.

https://unizikentrepjournal.com

#### INTRODUCTION

Communication is the life wire of every organization that tends to help it succeed. No organization or individual can survive without communication of some sort because every organization like a school requires communication to function effectively to attain organizational aims, goals and objectives. Schools are composed of people and groups who work together in a structured way to achieve a common purpose which is effective teaching and learning. This requires the use of different types of communication among principals as head of the school and teachers and other officers that work with the principal in managing the school. Communication is the exchange of information or message between two or more persons. It can be seen as the transfer of information from one person to another or a group of people for common understanding. This informed Oguche (2014) to buttress that communication is the process of sending and receiving information through verbal and non- verbal means. Therefore, adequate communication should be in place for courageous leadership involving input, process and output in secondary schools.

Communication is a way of reaching others by transmitting ideas, facts, thoughts, feelings and values. Its goal is to have the receiver understand the message at it was intended. To buttress this point, Canary (2011) opined that communication is the transfer of a message or information from one person to another or a group of people for common understanding. In support of the above concept of communication, Usman and Tsay (2017) affirmed that communication is an interactional process between man and man, man and animal, machine and machine. These can be achieved through the use of communication patterns of principals for courageous leadership.

Courageous leadership is the ability of the leader to plan, guide, organize, direct, counsel and lead subordinates bravely without fear or favour. Courageous leadership of Hybels (2002) as reviewed by Reeves (2015) resonates with conviction that courageous

https://unizikentrepjournal.com

leadership is to be most influential force on earth. This involves how to learn to communicate with authencity and embrace that drive of innovation. The leader must communicate to the people how transformation is progressing, announce and celebrate achievement, openly share setbacks and encourage the risk taking behavior required to implement the decision. Transformational leadership policy of reward, recognition for achievement is necessary to be adopted for the retention of principal and in order to attract new one in developed nations.

A courageous leader, according to the American Psychology Association (2022), must be a visionary leader who has the ability to initiate ideas for future, create a vision, visualize and realize it. They should have a strong sense of purpose and is able to get their subordinates committed to the vision. These are necessary because followers always share the vision of their leaders which are already imbedded in their hearts. They must create goals, initiate activities, actions and enlist the participation of his followers implementing the actions necessary for achieving the goals and projects. A courageous leader thinks out of the box to vision out ideas that will improve his/her leadership activities.

Courageous leadership must inspire the picture of what he desires the people or nation to become by articulating the vision so that the followers clearly see the possibility of actualizing their hopes, potentials and aspirations. He should not adhere to tradition (that is how we normally do it even when it is wrong), rather strongly believe in change, inspired with great passion to achieve result. They are known for self-efficiency, perseverance and commitment to his/her vision of what they want the society or nation to be .they should be reflective, follow their inner sense of decisions and use them to initiate changes. They are not corrupted by power (incorruptible), instead exhibits moral leadership and committed to humanity and must be humble and unpretentious, expressing enthusiasm to accept change, ready to make sacrifices to achieve great results. Courageous leaders need to know that reform in this country is feasible when

https://unizikentrepjournal.com

the above ideas are being put in place and courageous leadership needs some skills to achieve the stated goals and objectives of the organization. Such include collaboration, coordination, participation, and delegation of duties. Others are listening ears, opendoor policy, illustration and adequate communication.

Effectiveness of the principals as leaders of their schools; depends on the extent to which they perform administrative functions (Ngerem et al, 2022), Good communication also boosts the morale of individuals (teachers and students) to have sense of responsibility especially when they are involved in the scheme of things going on in the school. This informed the identification of some indicators of courageous leadership by Adegun, (2010) to include high productivity, morale (high motivation), turnover rate of teachers, degree of integration, maximization of individual potentialities, maximum utilization of available resources and value contribution to the society.

According to Ngerem et al (2022), communication patterns involve the totality of those processes and means that guarantee or ensure successful transmission of information, ideas or facts from the sender to the receiver without distortion. Communication patterns thus connote those regular means through which effective communication can take place. Advantages of good communication patterns are that they reduce the problems caused by the gaps in communication as well as enable individuals know their duties and when and how to carry them out. It reduces drastically the occurrence of misunderstanding in schools. It as well increases the cordial relationship between the school and the community and improves inter- personal relations among staff and students of the school. This has necessitated the determination of the Teachers' Perceived Influence of Communication Pattern of Principals on Courageous Leadership in Public Secondary Schools in Abia State. This is the gap the authors want to fill in the area of research in the research area too.

https://unizikentrepjournal.com

#### **Literature Review**

Miner in Okorji (2014) identified four distinct directions in which communication flows in an organization such as a school as horizontal, diagonal upward, and downward complimented with communication patterns. The administrative functions of planning, organizing, controlling and leadership among others, really involve the genuine application of appropriate communication patterns. Roy, (2012) asserts that an administrator must make decisions, receive and disseminate information through effective process and patterns of communication to guarantee that, any information passed from the source (sender) actually gets to the receiver "Communication patterns" generically cover the flow of communication while it comes to group communication in certain pattern in its own.

Principal's communication patterns are the various groups of administrative acts or behaviors intended to facilitate staff performance directly or indirectly. They can also be seen as strategies and methods of effective communication in day to day administrative practices for better dissemination of information for effective achievement of the goals and objectives of educational management. It is the ability of an administrator to show expertise in communicating with the human resources in his/her organization. It involves writing business correspondence such as memos, notices, reports and letters, speaking in meetings and presentations and listening to all levels of employees, co-workers and superiors for enhanced overall productivity "Patterns" generically cover the flow of communication and has a certain pattern in its own when it comes to group communication. Popular patterns in mainstream communication studies, according to Maharjan (2018) are 'Y' and 'Wheel' communication which are explained in Figures 1 and 2.

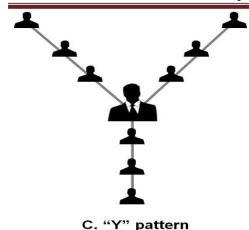
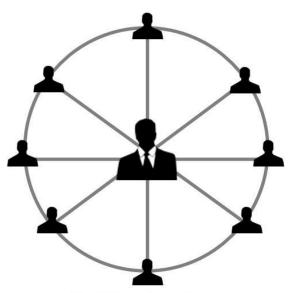


Figure 1: Y communication pattern adopted from Wallace (1971)

'Y' pattern of communication consists the flow of information upward and downward through the hierarchy, widening to encompass the number of employees reporting to the administrator. This pattern of communication is more complicated as

there are different sub-groups within a group. According to Maharjan (2018), a leader who manages these sub-groups is always in the center. This pattern of communication has three sub-groups that are being controlled by a single leader. There are three members in each group. Here, there is a chain of command within the subgroup. In Y pattern of communication, lowest level of each subgroup communicates with the members senior to them without hindrances (Maharjan, 2018).



D. Wheel pattern

https://unizikentrepjournal.com

Figure 2: Wheel patter of communication adopted from Wallace (1971)

In Wheel (star) pattern, there is a leader at the center of all communications. All others are members that stand at the same level in the structure. Here, all members can communicate with the leader and vice versa but the members cannot interact with each other. Sometimes, members do not even know the existence of other members of the same group. This pattern is taken as the best pattern of communication for any organization as the leader can have direct contact with all the group members and there are no problems, time issue and feedback from the group members. Communication problems are less and the method is quick (Harold, 2019). There is no distortion of information by other members of the group while passing the message. All the group members cannot connect with one another. Communication pattern of every administrator to a certain extent determines the level of organizational performance as such communication strategies in any given organization remain vital in attaining its goals. Communication barriers could be caused by problems inherent in communication process and its pattern. These communication distortions could lead to communication breakdown which invariably affects the efficiency and effectiveness of secondary school administration in form of face-offs between the principal and the entire staff, particularly the teachers (Ugwu, 2013). In secondary school, principals cannot carry out their duties effectively if faced with communication problems. Okezue (2016) posited that if a message is not properly sent or action not being sought, it may breed problems to the school plan or distort her operation effectively.

Communication in an organization is not always successful because of certain barriers. There are many barriers to effective communication in secondary school. One of these barriers is the personality of the sender. The personality of the sender may create negative impact on the audience and thereby causing barriers to communication (Krammer, 2017). If the sender's personality creates unhealthy organizational climate which may generate fear, hatred, and lack of trust, there will be distortion of

#### UNIZIK JOURNAL OF ENTREPRENEURSHIP (ENTREP) Vol:3 No: 2

ISSN: 2814-2004 eISSN: 2814-2012.

Dec, 2022 Edition

https://unizikentrepjournal.com

communication. The school principal should therefore try to exhibit high integrity and promote good relationship between him and the teachers.

Inappropriate ordering of decisions could make a receiver to become non-challant to the message. The receiver can also misconceive the intentions of the sender. The school principal should, present their problems in order of importance. Much time should be devoted to making proper decisions, and constant expression of criticism. If teachers are habitually criticized for their work, or addressed with complimentary statement, they may take the compliment as sarcasm. Such misconception distorts message.

Another problem that constitutes barriers to effective communication in a school is the decoding of information passed. Decoding according to Akinjide (2014) is usually affected by the receivers past experience, personal assessment of the symbols and gestures, used expectation and mutuality of meaning with the sender.

Improper specification of the purpose of the message, the nature of the receiver the channels and medium may distort the information intended (Adeka, 2015:42). Communication will be effective if the purpose is given and proper channels and timing are used. Talking without listening properly could also distort communication. Sometimes, some people could be thinking of their own problems without being attentive to the conversation that is going on. This habit affects communication in an organization especially in the school climate. Principals of secondary schools should show example by being good listeners. This will enable their subordinates to have time and confidence to explain their problems properly to them. Distrust, threat and fear also distort communication in the school system.

#### **Statement of the Problem**

The ideal situation is that principals should use good communication patterns, feedback mechanism of communication, interrelationship between administrators and workforce, quality personnel relations, good staff personnel administration, students'

UNIZIK JOURNAL OF ENTREPRENEURSHIP (ENTREP) Vol.3 No. 2 Dec, 2022 Edition

ISSN: 2814-2004 eISSN: 2814-2012.

https://unizikentrepjournal.com

personnel administration to enhance organizational workforce. Their good control of

communication flow in the system, editing of information before circulating, providing

record for every message sent and good flow of information in the system remains good

measure towards effective communication in an organization especially in the education

system. All these enhance courageous leadership of principals.

However, it seems that there is the problem of poor communication pattern in the

school system ranging from principals' failure to regularly inform the staff about the

changes in policies and progress in the school, poor feedback mechanism, poor

personnel relations, poor personnel administration, lack of editing of information or

message before circulating, lack of record for message sent out, poor information

network in the school. These affect the administrative system of the school and raises

serious question on the level of the principals' performance on the leadership duties of

the school and it worries the researchers to examine perceived influence of

communication patterns of principals on courageous leadership in public in secondary

schools in Abia state. This is the gap the researchers want to fill because to the best

knowledge of the researchers, no work with this topic has been carried out in the area

of this research.

**Research Questions** 

The following research questions guided the study:

1. To what extent do teachers' perceived influence of 'Y' communication pattern of

principals influence courageous leadership in public secondary schools in Abia State?

2. To what extent do teachers' perceived influence of 'wheel' communication pattern

of principals influence courageous leadership in public secondary schools in Abia State?

Hypotheses

The following hypothesis were formulated for the study and tested at 0.05 level of

significance:

196

https://unizikentrepjournal.com

1. There is no significant difference between the mean ratings of male and female teachers on the perceived influence of 'Y' communication pattern of principals on courageous leadership in public secondary schools.

2. There is no significant difference between the mean ratings of male and female teachers on the perceived influence of 'Wheel' communication pattern of principals on courageous leadership in public secondary schools.

#### Methodology

The study adopted a descriptive survey design. According to Nworgu (2016), descriptive survey research design is ideal for conducting social research when it is not possible or acceptable to manipulate the characteristics of human participants. It was guided by two research questions and two null hypotheses which was formulated and tested at 0.05 level of significance. The population of the study consisted of 4,904 (1919) males and 2985 females) teachers in 250 public secondary schools in the 17 Local Government Areas (LGAs) of Abia State. A sample size of 490 (124 males and 366 females) teachers was drawn through stratified proportionate random sampling technique for proper representation. The instrument for data collection was a structured questionnaire titled 'Teachers' perceived influence of communication pattern of principals on courageous leadership (TPICPPCL) in two clusters with 10 item statements. Questionnaire was structured along 4 points scale rating of very high extent (VHE), high extent (HE), low extent (LE) and very low extent (VLE). The research instrument was face and content validated by three experts; two experts from the Department of Educational Management and one expert from Measurement and Evaluation in the Department of Science Education in Michael Okpara University of Agriculture, Umudike. In order to ascertain the reliability of the instrument, a trial – test was conducted in a secondary school in Imo state which is outside the study area. In

https://unizikentrepjournal.com

the trial test, the questionnaire was administered on 10 male teachers and 15 female The data collected were analyzed using Cronbach alpha statistic to determine its internal consistency and reliability coefficient value of 0.76 was obtained This makes the instrument reliable. Reliability is the overall consistency of a measure. A measure is said to have a high reliability if it produces similar results under consistent conditions (Omalley, 2023) and acceptance level of 0.7 and above (Uzoagulu 2016).:The researchers administered the instrument to the respondents with the help of four assistants who were carefully guided using on —the-spot method in order to achieve a high response rate. Data generated from the questionnaire was analyzed using mean and real limit number to answer the research questions while z-test statistics was used to test the hypotheses at 0.05 level of significant using regression analysis. However, the mean bench mark of 2.50 was determined for the decision made in the research questions; as significant P-value was used for decision making of the null hypothesis at 0.05 level of significance which entails that null hypotheses was accepted. The results were presented on the tables.

#### **Results**

Table 1. Mean responses on the extent 'Y' communication pattern of principals' influences courageous leadership

S/N	Influence of Y communication pattern of principals on	X	SD	Remarks	
	courageous leadership				
1.	Y pattern of communication	2.84	0.92	High Extent	
	facilitates principal's courageous leadership				
2.	Y communication pattern encourages good staff	2.95	0.77	High extent	
	relation in achieving organizational goals on time				
3.	Y pattern communication remains one of the information	3.26	0.77	High extent	

#### https://unizikentrepjournal.com

	channel since all information is linked with the								
	school principal								
4.	There is well-defined instruction in the Use of Y communication pattern	2.54	0.88	High extent					
5.	There is total compliance to information released by the School administrator using Y pattern of communication	2.85	1.03	High extent					
	Cluster Mean	2.88	0.87	High extent					

The data in Table 1 shows that the mean responses in all the items (1-5) are above the mean benchmark of 2.50 indicating high extent responses. This in its implication is that the respondents agreed that 'Y' communication pattern of principals has a high extent of influence on courageous leadership. Since the pooled mean of 2.88 is above the mean benchmark of 2.50, the study therefore concludes that Y communication pattern of principals to a high extent influence courageous leadership in public secondary schools in public secondary schools in Abia State.

Table 2: Mean response on the extent 'wheel' communication pattern of Principals influences courageous leadership

S/N	Wheel communication pattern and	X	SD	Remarks
	Principal courageous leadership			
1.	Wheel pattern communication avails direct	3.17	0.66	High
	contact with all members of the group which is			Extent
	a good measure for courageous leadership			
2.	The quick feedback approach of wheel communication	2.99	0.76	High
	tends to affect negatively administrator's performance			Extent

UNIZIK JOURNAL OF ENTREPRENEURSHIP (ENTREP) Vol:3 No: 2 ISSN: 2814-2004 eISSN: 2814-2012. Dec, 2022 Edition

#### https://unizikentrepjournal.com

3.	The time frame for communication using wheel pattern	3.53	0.70	High
	Is likely to hinder effective communication for effective			Extent
	Performance in an organization			
4.	School administrators perform well when using wheel	3.55	1.03	High
	Pattern communication.			Extent
5.	The inability of the school administrators to communicate	2.81	0.79	High
	Effectively to all groups in school as a result of wheel			Extent
	Pattern communication used is likely to lead to courageous			
	leadership	3.21	0.84	High
	Cluster mean			Extent

Data on Table 2 shows the mean responses in all the items by the respondents influence courageous leadership in high extent. This can be proved by the cluster mean of respondents on wheel communication pattern and courageous leadership which are above the mean benchmark of 2.50. This implied that each item in the cluster yields a high extent. Based on the fact that the cluster mean of 3.21 is above the mean benchmark; the researcher therefore concluded that wheel communication pattern to a high extent influences principal's courageous leadership in public secondary schools in public secondary schools in Abia State.

Table 3: z-test analysis of no significant difference between Y communication pattern of principals on courageous leadership

Respondents	N	X	SD	Std-err.	Zcal	P-value	Decision
Male	154	11.840	2.169		-1.0776	1.96	Accept
Female	336	12.148	2.227	0.2858			Ho1

The presentation indicates that the z-cal of -1.0776≤ the z-critical of 1.96. This implies that the null hypothesis is accepted and the alternative hypothesis rejected. We therefore conclude that there is no significance difference between male and female teachers' responses on the influence of Y pattern communication on courageous leadership. Y

https://unizikentrepjournal.com

pattern communication therefore influences principal's courageous leadership as opined by the respondents.

Table 4: z-test analysis of no significant difference between Wheel communication pattern of principals on courageous leadership

Respondents	N	X	SD	Std-err.	Zcal	P-value	Decision
Male	154	10.34	3.2.1		0.21	1.96	Accept
Female	336	10.30	3.25	0.241			Ho2

The presentation indicates that the z-cal of  $0.21 \le$  the z-critical of 1.96. This implies that the null hypothesis is accepted and the alternative hypothesis rejected. We therefore conclude that there is no significance difference between male and female teachers' responses on the influence of wheel pattern communication on courageous leadership. Wheel pattern communication therefore influences principals' courageous leadership as opined by the respondents.

#### **Discussion**

The results indicate that Y communication pattern is a prerequisite for principals' courageous leadership in secondary schools. This connotes that male and female teachers used for the study are of the view that Y communication pattern of principals has a high influence on administrative effectiveness. This was revealed by the pooled mean of 2.88 and SD of 0.87 which is above the mean bench mark of 2.5 as such the cluster mean of the study indicated a high extent influence; meaning that teachers in public secondary schools in Abia state are in agreement that Y communication pattern to a high extent influences the administrative effectiveness of principals. This finding is in consonance with Okezue (2016) who posited that if a message is not properly sent

https://unizikentrepjournal.com

or action not being sought, it may breed problems to the school plan or distort her operation effectively.

The finding is not in agreement with Maharjan (2018), who stressed that y communication pattern is stressful and if not well managed may not influence administrative effectiveness.

More so, the z-test analysis in table 3 revealed that the z-cal.of -1.0776< the z-tab of 1.96 at 0.05 level of significance. This imply that the respondents agreed that there is no significant difference between Y communication pattern of principals on courageous leadership in public secondary schools in Abia State.

The result of the data analyzed based on wheel communication shows that male and female teachers used for the study are of the view that 'wheel' communication pattern used by the principal influences courageous leadership to a high extent. This was evidenced by the pooled mean of 3.21 and SD of 0.84 which is above the mean bench mark of 2.5 as such the pooled mean indicated a high extent influence; implying that teachers in public secondary schools in Abia state are in agreement that the wheel communication pattern to a high extent influences courageous leadership. The finding agrees with Ugwu, (2013) who posed that communication distortions could lead to communication breakdown which invariably affects the efficiency and effectiveness of secondary school administration in form of face-offs between the principal and the entire staff, particularly the teachers thereby jeopardizing courageous leadership. This is also in agreement with Harold (2019) who found out that wheel communication pattern makes communication problems less and the method quick to solving problems which aid courageous leadership. Also, the z-test analysis in table 4 revealed that the zcal.of 0.21 < the z-tab of 1.96 at 0.05 level of significance. This imply that the respondents agreed that there is no significant difference between wheel communication pattern of principals on courageous leadership in public secondary schools in Abia State. The study found that the perceived influence of teachers on 'Y'

UNIZIK JOURNAL OF ENTREPRENEURSHIP (ENTREP) Vol.3 No. 2 Dec, 2022 Edition

ISSN: 2814-2004 eISSN: 2814-2012.

https://unizikentrepjournal.com

and 'wheel' communication patterns of principals on courageous leadership were to a

high extent with a total mean of 2.88 and 3.21 respectively and there was no significant

difference in the mean rating of male am female teachers on their perceived influence

of communication pattern on courageous leadership.

**Conclusion** 

Based on the findings of the study which sought to determine the perceived influence

of communication patterns of principals on courageous leadership in public secondary

schools in Abia state, it was concluded that communication patterns used by principals,

'Y' and 'Wheel' communication patterns influence courageous leadership to a high

extent. That the communication pattern used by principals in relating with their sub-

ordinates plays an influencing role to their administrative effectiveness. The need for

self-development in using appropriate communication pattern for a given situation

remain a vital issue in education to address so as to ensure that every information

communicated in the system facilitates quality feedback. Appropriate adoption and use

of 'Y', 'Wheel' communication patterns rightfully will help school administration to

maintain quality communication flow and conducive environment for operating the

school which may likely improve the performance of school courageous leadership.

Recommendations

From the findings, the following recommendations were made:

1. The principals' should self-development themselves in using 'Y' communication

pattern for a given situation to ensure that every information communicated in the

system facilitates quality feedback for courageous leadership.

2. They should adopt and use 'wheel' communication pattern to maintain quality

communication flow and conducive environment for the schools which is likely to

improve the performance of the school through courageous leadership.

203

#### https://unizikentrepjournal.com

#### References

Adegun, O.A (2010) Communication and Administrative effectiveness of head teachers in public and private schools in Ekiti State. Journal of Educational Administration and Planning 5(2) 196 – 200

Akinjide (2014). ). Effective teaching: Principles and practice. Port Harcourt: Paragraphics.

Akinjidee, A. (2014). Silent Messages (1st ed.) Belmont, C A: Wadsworth

Ameriacan psychology association (2022). Transformational leadership approaches: A review and synthesis in J. Antonakis, A.T. Cianciolo, & R. J. Sternberg (Eds.), The nature of leadership Washinton, DC: Sage publications Inc 9pp171-196

Canary, H (2011). Communication and Organizatory Knowledge: temporary issues for theory and practice. Florence, NY: Taylor and Francis.

Dulock, L. H. (2013), Research design: Descriptive research. Journal of Pediatric Oncology Nursing 10, 154-157.

Harold, J. L. (2019). Communication patterns. Businesstopi, <a href="https://www.businesstopia.net.comm">https://www.businesstopia.net.comm</a>....

https://www.communicationtheory.org/wp-content/uploads/2012/08 https://www.communicationtheory.org/wp-content/uploads/2012/08 wheel-pattern

Ibiam, N. (2015). Educational Administration Principles and practice. Owerri: Cell-bez publishers.

Krammer, S. (2022). The science within and beyond it., A Review

Mehragian, (2013). Silent Messages (1st Ed.). Belmont, C A: Wadsworth

Modebelu, M. N. (2015). Foundations of education in Nigeria: Basic tool for entrants. Awka: Scoa Heritage Publishers, pp1-10.

Ngerem, E. I. (2017) Administration of Nigerian Education in M.N. Modebelu, L.O. Eya & J.C. Obunadike (Eds.). Educational Management: The Nigerian Perspective. Anambra: SCOA Heritage Nigerian Ltd.

Ngerem, E. I. et al (2022). Influence of communication pattern of principals on administrative performance. British International Journal of Education and Social Sciences 9(9) 1-12

#### https://unizikentrepjournal.com

- Nworgu, B.G. (2012). Education Research: Basic Issues and Methodology: Second and Enlarged Edition: University Trust Publisher Nsukka Enugu.
- Oguche, D. M. (2014). Educational administration, planning and operational supervision.

  Anakpa: keep printing and publishing technology
- Omalley, B.F. 2023. Merriam-Webster .com Dictionary, Merriam-Webster <a href="https://www.merriam">https://www.merriam</a>
  Merriam-Webster.com/dictionary/reliability. Accessed 04: 11: 2023.
- Okezue, C. (2016). Work-related musculoskeletal disorders among office workers Journal of National Institute of health https://www.ncbi.nlm.nih.gov.pmo
- Okorji, P.N (2014). Communication in School Organisation in G.O, Unadukwu & P.N Okorji (Eds). Educational Administration: the skill building approach. Anambra: Rev. Charles Publishers.
- Reeves, A. (2015). Impact of crisis resource management. Working with risk in counselling and Psychotherapy. London press
- Roy, M. (2012). How communication works. In W. Schramm (Eds). The process and effects of communication. Urbana, Illionis: University of Illionis press (pp.3-26)
- Usman, M. & Tsay, F. (2017). Application of vector error correction model. International Journal of energy economics 10(19) 45-51
- Uzoagulu, A.E. (2012). Practical guide to writing research project reports in Tertiary institution Revised Edition. Enugu: Jacob's Classic Publishers.