

Decision-Making Model and Productivity in Public Secondary Schools in Ondo North Senatorial District of Ondo State, Nigeria

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Abstract

The dwindling level of teachers' productivity in Nigerian secondary schools has been a matter of serious concern, which the education stakeholders perceive to be the aftermath of the inadequacies in principals' decision-making strategies. This study therefore investigated the levels of principals' decision-making strategies and determined the implication for productivity in secondary schools in Ondo North Senatorial District of Ondo State, Nigeria.

Descriptive survey research design and *ex-post facto* research design were adopted. The sample comprised 150 school administrators and 600 teachers randomly selected from 30 public secondary schools. Data were collected using three research instruments titled "Principals' Decision-Making Strategies Questionnaire" (PDMSQ), "Teachers' Productivity Questionnaire" (TPQ), and "Students' Academic Performance Proforma" (SAPP). Four research questions and two hypotheses guided the study. Research questions were analyzed using frequency count, and mean, while the hypotheses were tested using Multiple Regression Analysis and Pearson Product Moment Correlation (PPMC) at 0.05 level of significance.

Results revealed that the consultation strategy ($\beta = .644$), collaborative strategy ($\beta = .566$), feedback strategy ($\beta = .542$) and corporate review strategy ($\beta = .512$) had the highest values and positive contributions to teachers' productivity while the open-door strategy had the least contribution to teachers' productivity ($\beta = .312$) at $p < 0.05$. The result further indicated that there was a significant relationship between principals' decision-making strategies and students' academic performance [$r = 0.626 > 0.195$].

It was concluded that teachers' involvement in decision-making is moderate and this accounted for the moderate level of teachers' productivity and students' academic performance. Based on the findings, it is recommended that the school principals' should intensify efforts in the use of consultation, collaborative, feedback and corporate review strategies to enhance decision-making process while the State Ministry of Education should organize seminar/workshop to improve principals' competence in the use of decision-making strategies to enhance teachers' productivity in secondary schools.

Keywords: Decision-making, consultation, collaborative, feedback, teachers' productivity.

1. Introduction

The secondary school is a formal organization that is established to achieve educational goals by developing students' intellect, skills and characters for higher education and useful living through teaching and learning activities (Federal Republic of Nigeria, 2013). The attainment of the educational goals possibly depends largely on principals' decision-making strategies.

Decision-making is the process of identifying and choosing the best among alternative ways of providing solutions to problem(s) in order to improve productivity and achieve organization objectives (Kanuka & Anderson 2008; Aydin, 2010). Decision-making is one of the most important duties of the school principal because there are elements of decision-making in every administrative act, whether it concerns students, staff, programs, resources and services. The school principal and other top management members of the school (vice principal, heads of departments, subject coordinators, and heads of school committees) are expected to be effective in decision-making about goal setting, curriculum planning and

implementation, and coordination of human and material resources for optimal performance and achievement of the set goals (Ayeni, 2018).

Teachers can be involved in decision-making when school principals encourage open avenues for teachers to participate in the process of determining activities outside the classroom such as the selection of relevant textbooks, curriculum planning, program planning, students' placement, personnel deployment and capacity development (Khoza, 2003; Keung, 2008; Lin, 2014). However, lack of teachers' involvement in the decision-making process by principals often causes mistrust, poor attitude to work and low productivity leading to non-achievement of educational goals.

Productivity is a measure of how efficiently a given set of resources is utilized to achieve a given set of objectives. Teachers' productivity is the measure of teachers' output and in the context of this study involves teachers' instructional tasks performance and students' academic performance. The level of teachers' productivity is enhanced by their level of participation in decision-making. However, teachers' productivity in secondary schools seems to be relatively low because of the perceived inadequate participation in decision-making process; this often lead to low level of teachers' morale and wavering commitment to instructional task performance, which could have negative implication on students' academic performance as reflected in the percentage of students who obtained credit level passes in five subjects including English Language and Mathematics which has often been below 50% in Nigeria between year 2015 and 2017 (Adenipekun, 2018).

This study is significant due to the persistent agitation by the education stakeholders and the premium being placed on the need to improve the quality of education for better academic performance of students in Nigerian secondary schools. The study will no doubt provide additional information to the government, educational planners, school principals and teachers on the need to improve the decision-making process on matters that affect school management and teachers' productivity. It is equally hoped that both the principals and the teachers will appreciate the need for collaboration in decision – making process in secondary schools. The outcome of this study would create awareness for principals that nobody has a monopoly of wisdom and there is the need to respect the viewpoints of teachers in order to make them work harmoniously and assiduously towards the achievement of the educational goals.

1.1 Concept of Decision-Making

The Concept of decision-making involves defining the problem, finding alternatives, comparing, weighing and choosing an appropriate course of action from several alternative courses for the purpose of solving identified problem(s), handling crises and resolving conflicts that are inevitable (Yates, 2001). Decision-making is a concept based on the fundamental principle that individuals who are affected by the decision are responsible for implementing the decision; therefore, individuals who make up an organization should be involved in the decision- making process to enable them to utilize their expertise in decision-making in order to achieve the organizational goals.

The decision-making process of the school principal affects the instructional performance of teachers' and students' academic performance (Lunenburg, 2010). In the school setting, the best method of ensuring effective coordination of actions and increasing productivity is by involving teachers in decision-making process on matters relating to the setting of the school's goals, curriculum planning, implementation, evaluation and feedback which depend

on both the principal's and teachers' thinking and purposeful actions (Boonme, 2001; Lammessa, 2010; Ayeni, 2018).

However, findings from previous studies have shown that principals usually take decisions all alone without involving the teachers. Tanfox (2010) stated that the school principals see teachers as mere technicians who only need to heed to the construction of programmed materials, and professional decisions are made without involving the teachers who performed instructional tasks in the school. This situation seems to demoralize teachers who often show a lukewarm attitude to work in secondary schools (Uba-Mbibi, 2013). There are cases of school principals either taking decisions alone or handpicking teachers whom they consider as their favorites to assist them in decision-making process (Perry, 2011). This invariably means that teachers are not adequately involved in taking decisions on matters concerning the school affairs. This often affects teachers' commitment to the implementation of decisions. This could have negative implications on teachers' productivity.

1.2 Concept of Productivity

Productivity in education is the rate at which educational objectives are achieved. It is a continuous process, taking into consideration the input, process and output phases of education (Yusuf, 2017). Teacher's productivity could be measured in terms of a student's academic performance. This is how well a student performs in a given test/examination in the school. In the context of this study, it is the level of students' performance in the West African Senior School Certificate Examinations (WASSCE) conducted between 2015 and 2017 in public secondary schools in Ondo North Senatorial District of Ondo State, Nigeria.

Productivity is an effective and efficient way of getting things done, which indicates the hallmark of growth and development in an organization. In the school, teachers' productivity may be measured in terms of teachers' instructional tasks performance such as teaching effectiveness and classroom performance. Productivity might be high or low depending on the input. Productivity can be determined through job evaluation and appraisal of the extent to which the objectives of education have been achieved. This can be done or determined through evaluation of teachers' instructional tasks and students' academic performance.

2. Theoretical Framework

This study is anchored on Vroom-Yetton-Jago-Contingency Theory developed by Victor Vroom in collaboration with Arthur Jago (1988). The theory argues that the best style of leadership is contingent on the situation. The theory is essentially a model for deciding how much subordinate should participate in the decision-making process. It suggests decision-making based on the characteristics of the situation in which the leader determines an appropriate decision style that specifies the amount of subordinate participation. The theory suggests that leaders should have skills to apply decision-making styles in a continuum from highly autocratic to highly consultative and group-based. The model is designed to protect the quality of the decision and ensure decision acceptance by all the subordinates (Kipkoech & Chesire, 2011).

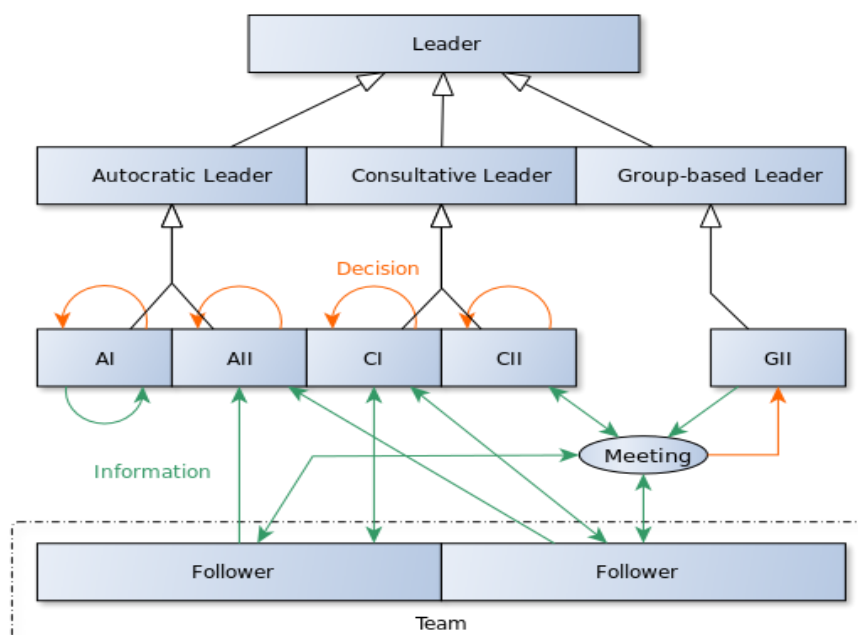


Fig 1: Vroom-Yetton-Jago-Contingency Situational Leadership Decision-making Model (1988)

The Vroom-Yetton-Jago Normative Decision-making Model identifies five different approaches/strategies under the autocratic, consultative and group-based decisions which are informed by the situation and level of involvement. They are: autocratic type I, autocratic type II, consultative type I, consultative type II and group based.

Autocratic Type 1 (AI): Leader makes own decision using information that is readily available to him or her at the time. This type is completely autocratic.

Autocratic Type 2 (AII): Leader collects required information from followers and makes decisions alone. Problems or decisions may or may not be known to followers. Here, followers' involvement is just providing information to the leader.

Consultative Type 1 (CI): Leader shares problems to relevant followers individually and seeks their ideas and suggestions and makes decisions alone. Here followers do not meet each other and the leader's decision may or may not reflect the followers' influence. Here followers' involvement is at the level of providing alternatives individually.

Consultative Type 2 (CII): Leader shares problems to relevant followers as a group and seeks their ideas and suggestions and makes decisions alone. Here followers meet each other, and through discussions they understand other alternatives. But the leader's decision may or may not reflect the followers' influence. The followers' involvement is at the level of helping as a group in decision-making.

Group-based Type 2 (GII): Leader discusses problems and situations with followers as a group and seeks their ideas and suggestions through brainstorming. Leader accepts any decision and does not try to force his or her idea. Decision accepted by the group is the final one.

The Vroom-Yetton-Jago Decision-making Model of Leadership is quite mechanical, that it may overlook sensitivities, such as the psychological make-up of the leader, complexity of tasks, emotions of the group, vagueness of the terms (such as "importance" and "quality"), and dynamics. The model gives a specified decision-making procedure, and there may not be enough time to apply it in all situations since emergencies could impose time constraints that could require the leader to make urgent decisions without consulting others. Participative decisions, especially collaborative decisions, require more time than a decision made alone; when important decisions are at stake, the leader must schedule more time for involvement. However, such an approach is not always possible, nor is it preferable in all situations.

The inherent implication is that followers who have a very low level of expertise accept the decisions of leaders while staff members who have higher levels of expertise require either participation or collaboration to arrive at successful decisions. The leader who desires collaboration must raise levels of expertise to successfully involve subordinates.

The need for a high-quality decision implied that some decisions are much more important and carry significant consequences. This is usually the case for instruction and learning, which need teachers' inputs and principals support for successful implementation and results. This underscores the importance of collaboration in decision-making. However, leaders often make decisions alone when there is a time constraint. This could undermine the quality of such decisions.

This theory is relevant to the school management since principals are basically managers who are bestowed with authority to make decisions in secondary schools. The theory appears to be a tool that principals can apply in deciding how much subordinates (teachers) should participate in decision-making (Moorhead & Griffin, 2000). The gap between the actual practice and desired levels of employees' participation showed perceived inadequacies in the decision-making strategies contained in the theory developed by Yetton – Jago (1988).

A critical look at the previous studies also showed that teachers in secondary schools are involved in managerial decisions but at lower levels. A conceptual model has therefore been developed by the researchers in this study to further examine and enhance principals' decision-making strategies and teachers' productivity in secondary schools in Ondo North Senatorial District of Ondo State, Nigeria.

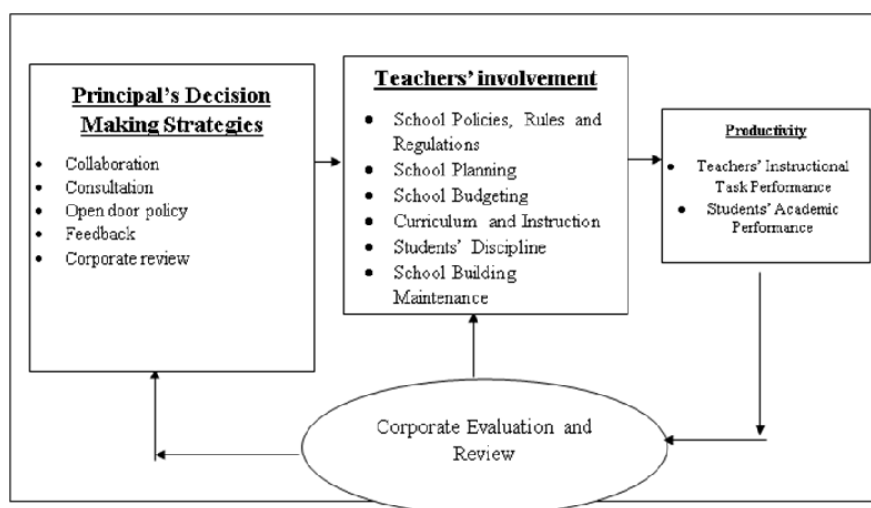


Fig 2: Decision-making Model in secondary school

The diagram shows the conceptual model of decision-making which encompasses variables that are used by the school principal to strengthen teachers' collaboration, integration, and participation in decision-making for the purpose of solving problems, improvement in productivity and achievement of the educational goals. The principal's decision-making model consisted of collaboration, consultation, open door policy, feedback and corporate review of school administration and teaching-learning process to provide quality education for the students and achieve the desired outputs/results that will meet the expectation of the stakeholders in education and the society at large.

It is the responsibility of the principals to apply and implement decision-making model by ensuring that teachers are involved in the formulation of school policies, rules and regulations, program planning, curriculum and instruction, students' discipline and maintenance of school infrastructure and other activities that can engender school improvement and achievement of the educational goals. The decision-making model comprised the following strategies that are used for the improvement of productivity in secondary schools. These strategies are collaboration, consultation, open door policy, feedback and corporate review.

Collaboration: This is the process by which principals work routinely with teachers at specified time for the purpose of instructional improvement and achievement of the educational goals; both the principals and teachers are well positioned professionally to work together at specified time with best practices and keep connected to the core of their work. Collaboration plays an important role in helping teachers to be focused on their instructional tasks and when collaboration is absent, teachers work in isolation and little professional growth occurs (Pounder, 2009). School principals are expected to provide necessary instructional leadership, professional support, motivation, reflective practice, and instructional innovation which improve teachers' efficacy and in turn lead to improvement in students' achievement.

Consultation: Quality decision-making demand consultation; this occurs when a principal seeks opinions, ideas, and suggestions from teachers and considers those ideas in making short-term decisions that require quick turn-around. It has little impact on the school's mission and vision but could be suitable when making instructional decisions. The content related decisions are mostly influenced by other teachers' past experiences and standards (Diamond, 2007).

A primary factor influencing teachers' decisions relating to both content and pedagogical decisions is their colleagues and can be initiated through distributed leadership of informal roles. This occurs because teachers will turn to their colleagues for advice and this interaction tends to influence content and pedagogical decisions (Diamond, 2007).

Open Door Policy: This is the process by which principals encourage discussion and feedback about any matter of importance among teachers in secondary schools. The school being a dynamic social system is made up of different elements including people who have varied knowledge, skills and experiences that are required for effective administration and implementation of the curriculum. It is expected that the school principals operate an 'open door policy' and welcome ideas from all teachers during the brainstorming session at the staff meetings in order to generate, evaluate and choose the best among alternative ways of providing solutions to the identified problem (Ayani, 2018).

Feedback: Feedback has a strong positive influence on teachers and their work. Principals perform instructional monitoring functions and they are expected to provide feedback to teachers through post-observation and informal day-to-day interactions. Feedback increases teachers' commitment to duties and productivity.

The feedback that school principals provide to teachers after classroom observations is a key success factor in the teacher evaluation cycle. The feedback and subsequent professional development are intended to help teachers adopt appropriate instructional strategies and improve students' academic achievement (Correnti & Rowan, 2007; DeNisi & Sonesh, 2011; Taylor & Tyler, 2012). A feedback mechanism would only work if there is consistent networking among the parties involved.

Corporate review: The essence of management is making quality decisions. School principals are constantly expected to evaluate alternatives through qualitative and quantitative analyses and make preferred decisions regarding a wide range of matters. In ensuring an effective decision-making process, both the principal and teachers are expected to be involved in a corporate evaluation and review of strategies in order to improve productivity. Involvement of teachers in decision-making improves teachers' morale and reduces interpersonal conflict, which in turn may raise the level of achievement of the set goals in terms of instructional tasks performance and students' learning outcome (De Dreu, 2006).

2.1 Decision-Making Model and Teachers' Productivity

Teachers' productivity is the extent to which teachers performed their instructional tasks for the purpose of achieving the educational goals and this could be enhanced by their level of involvement in decision-making process in secondary schools (Ayeni, 2018). Kayode (2009) investigated teachers' participation in decision-making as a correlate of school goal achievement among secondary school students in five (5) Local Government Areas of Ogun State, Nigeria. The study revealed that the level of teachers' involvement in decisions made within the school was high and this ensured a high level of cooperation and productivity.

Kipkoech and Chesire, (2011) investigated teachers' involvement in managerial decision – making in secondary schools in Keiyo District, Kenya; the finding indicated a lower level of teachers' involvement in managerial decisions. Newman (2012) examined the influence of teachers' participation in crucial school-based decisions on students' performance in Zimbabwean secondary schools; the finding showed a significant positive correlation between teachers' involvement in decision-making and students' performance. Sarafidou and Chatziioannidis (2013) examined teachers' involvement in different domains of decision-making in Greek schools and associations with school and teacher variables. The study revealed that there is high participation in decisions concerning students' and teachers' issues, but low levels of participation in managerial decisions.

Ayeni (2018) examined principals' decision-making strategies and level of teachers' involvement in decision-making and determined the implications on teachers' instructional task performance and students' academic performance in secondary schools in Ondo Central Senatorial District of Ondo State, Nigeria. Results showed a significant relationship between principals' decision-making strategies and teachers' instructional tasks performance, and a significant relationship between teachers' instructional task performance and students' academic performance.

Omemu (2018) examined teachers' participation in decision-making and job performance in private secondary schools in Oredo Local Government Area of Edo State; the study revealed that adequate involvement of teachers in decision-making process resulted in high level of commitment to instructional tasks performance and achievement of educational goals.

3. The Problem, Research Questions, Hypotheses and Research Method

3.1 Statement of the Problem

The realization of educational goals depends largely on the extent to which the school principals involve teachers in the decision-making process. Principals are expected to generate ideas through the opinions of their teachers on issues concerning the school programs and activities. It is not uncommon that many principals make decisions without involving their teachers. In most cases decisions are made on issues concerning teachers' instructional activities without their relevant inputs. This seems to have contributed to teachers' low morale, poor interpersonal relationship and low productivity which has implied ineffective school management and impeded the attainment of the set educational goals in secondary schools.

Personal observations by the researcher revealed that teachers often express dismay and frustration over their inadequate involvement in decision-making on issues that affect them directly in the classrooms such as students' placement, textbook selection, curriculum development, implementation and review, provision of instructional materials. This may cause low self-esteem for teachers because they are not given the desired recognition, thus leading to distrust and low productivity.

Based on the perceived inadequacies in the decision-making process, this study intends to investigate the level of decision-making by school principals using strategies such as collaboration, consultation, open door policy, open criticism, feedback system and corporate review in facilitating decision making process with a view to determining the level of teachers' productivity in secondary schools in Ondo North Senatorial District of Ondo State.

3.2 Research Questions

The following research questions were raised to guide the study:

1. How do teachers perceive principals' decision-making strategies in secondary schools in Ondo North Senatorial District of Ondo State?
2. What is the level of teachers' productivity in secondary schools in Ondo North Central Senatorial district?
3. What is the level of students' academic performance in secondary schools?

3.3 Research Hypotheses

The following research hypotheses were formulated to guide the study:

1. There is no significant relationship between principals' decision-making strategies and teachers' productivity in secondary schools in Ondo North Senatorial District of Ondo State.

2. There is no significant relationship between principals' decision-making strategies and students' academic performance in secondary schools in Ondo North Senatorial District of Ondo State.

3.4 Research Method

The study adopted the descriptive research design of the survey type. The population of the study comprised all principals and teachers in all the 90 public secondary schools in the existing six (6) Local Government Areas of Ondo North Senatorial District of Ondo State. Multi-stage sampling procedure was used to select a sample for the study. Three (3) Local Government Areas were randomly selected out of the existing six (6) LGAs in Ondo North Senatorial District. Thirty (30) secondary schools which represent 33.3% of the existing 90 secondary schools were randomly sampled.

The respondents consisted of 600 teachers randomly selected from the 30 sampled secondary schools. Twenty (20) teachers were randomly selected from each of the 30 sampled secondary schools. Also, 150 top management members (principals, vice principals and head of departments) were selected from the 30 sampled secondary schools. The researchers adapted the instrument constructed by Ayeni (2018) on a study "Principals' Decision-making Strategies and Teachers' Productivity in Ondo Central Senatorial District of Ondo State. The instrument comprised two sections (A and B). Section A captured principals' decision - making strategies in collaboration, consultation, open door policy, feedback and corporate review. Section B collected data on teachers' productivity in the key areas of lesson planning, pedagogical skills, classroom management, instructional materials, continuous assessment, performance feedback and instructional review.

The instrument utilized a 4 point likert rating scale classified as Always (A), Often (O), Seldomly (S), and Never (N) with the value of 4, 3, 2 and 1, respectively. A proforma titled "Students' Academic Performance Proforma (SAPP) was used to collect data on the students' results in WASSCE between 2015 and 2017. The research instrument was validated both in face and content by experts in Department of Educational Management, Adekunle Ajasin University, Akungba-Akoko, Ondo State, which ensured that the questionnaire items adequately covered all the component variables of the research questions and hypotheses formulated for the study.

The research instrument was pilot-tested for reliability using the test-retest method in two secondary schools outside the sampled secondary schools in the Senatorial District of the study. The reliability coefficient was determined using Pearson Product Moment Correlation Coefficient (PPMCC) at 0.05 level of significance. Teachers' productivity questionnaire had a reliability coefficient of 0.68, while Principals Decision-making Strategies Questionnaire had 0.71.

The research instrument was administered on the respondents personally by the researchers and two research assistants were engaged to help in the administration of the questionnaires. Respondents were requested to complete the questionnaire and return them to the researchers on the same day. The researchers clearly explained procedures for completing the questionnaire where respondents needed additional information. The completed questionnaires were collected on the same day while those not completed were collected the next day. This strategy enabled researchers to achieve a 99.5% rate of return.

Data collected were used to answer the research questions using percentage and the mean score values which were rated as Low (< 2.5), Moderate ($\geq 2.5 < 3.5$) and (High ≥ 3.5), while hypotheses one was analyzed using regression statistics and hypotheses two to seven were tested using Pearson Product Moment Correlation (PPMC) at 0.05 level of significance.

4. Results

The research questions were analyzed descriptively using frequency counts and percentage while the research hypotheses were tested using inferential statistics: Multiple Regression Analysis and Pearson Product Moment Correlation (PPMC) at 0.05 level of significance. The analysis of data and discussion of findings in order of the research questions and hypotheses as presented in Tables 1- 6 and Figures 1 - 4.

Research Question 1: How do teachers perceive principals' decision-making strategies in secondary schools in Ondo North Senatorial District of Ondo State?

Table 1.1: Open Door Strategies

S/N	Items		Responses				$\bar{x}$
			A	O	S	N	
1	My principal welcomes teachers' viewpoint/ideas in decision making	Freq.	281	289	13	14	3.40
		%	47.1	48.4	2.2	2.3	
2	My principal tolerates brainstorming session at staff meetings	F	108	319	128	42	2.83
		%	18.1	53.4	21.4	7.0	
3	My principal maintains open communication in decision making process	F	317	240	28	12	3.46
		%	53.1	40.2	4.7	1.5	
4	My principal does not impose his/her ideas in decision-making process	F	266	222	95	14	3.24
		%	44.6	37.2	15.9	2.3	
5	My principal allows constructive criticism in decision-making process	F	264	247	72	14	3.27
		%	44.2	41.4	12.1	2.3	
Percentage /Grand Mean		F	247	264	67	19	3.24
		%	41.3	44.2	11.2	3.3	

The analysis of data on Table 1.1 by percentage points revealed that school principals always (41.3%), often (44.2%), seldomly (11.2%), and never (3.3%) use open door strategies in decision-making. The grand mean of 3.24 implied that the majority of the principals are moderate in the use of open-door strategies in decision-making in secondary schools in Ondo North Senatorial District of Ondo State, Nigeria.

Table 1.2: Collaborative Strategies

S/N	Items		Responses				$\bar{x}$
			A	O	S	N	
1	My principal involves teachers in setting school goals and designing work plan	Freq.	215	296	71	15	3.19
		%	36.0	49.6	11.9	2.5	
2	My principal involves the vice – principals and heads of departments in classroom supervision	F	314	237	34	12	3.45
		%	52.6	39.7	5.7	2.0	
3	My principal always maintains interpersonal relations with teachers to achieve maximum cooperation in the implementation of school programs.	F	166	388	33	10	3.21
		%	27.8	65.0	5.5	1.7	

4	My principal encourages teamwork among teachers to improve curriculum delivery.	F	302	291	4	0	3.49
		%	50.6	48.7	0.7	0.0	
5	My principal always recognizes teachers' viewpoints in decision-making.	F	318	173	106	0	3.36
		%	53.3	29.0	17.8	0.0	
Percentage/Grand Mean		F	263	277	50	7	3.34
		%	44.0	46.4	8.4	1.2	

The analysis of data on Table 1.2 by percentage points indicated the level that school principals always (44.0%), often (46.4%), seldomly (8.4%), and never (1.2%) use collaborative strategies in decision-making. The grand mean of 3.34 implied that the majority of the principals are moderate in the use of collaborative strategies in secondary schools in Ondo North Senatorial District of Ondo State, Nigeria.

Table 1.3: Consultation Strategies

S/N	Items		Responses				
			A	O	S	N	$\bar{x}$
1	My principal solicits teachers' inputs in formulating school policies, rules, regulations and procedures	Freq.	244	310	42	1	3.34
		%	40.9	51.9	7.0	0.2	
2	My principal utilizes teachers experiences in making decisions on sensitive issues	F	214	349	33	1	3.29
		%	35.8	58.5	5.5	0.2	
3	My principal always seeks teachers' advice on matters concerning school-community relations	F	239	312	30	16	3.29
		%	40.0	52.3	5.0	2.7	
4	My principal distributes leadership responsibilities to committees to get better ideas in making decisions	F	232	321	30	14	3.29
		%	38.9	53.8	5.0	2.3	
5	My principal always considers the viewpoints of teachers in resolving disputes	F	242	294	61	0	3.30
		%	40.5	49.2	10.2	0.0	
Percentage/Grand Mean		F	234	317	39	7	3.30
		%	39.2	53.0	6.5	1.3	

The analysis of data on Table 1.3 by percentage points revealed the level that school principals always (39.2%), often (53.0%), seldomly (6.5%), and never (1.3%) use consultation strategies in decision-making. The grand mean of 3.30 implied that the majority of the principals are moderate in the use of consultation strategies in secondary schools in Ondo North Senatorial District of Ondo State, Nigeria..

Table 1.4: Feedback Strategies

S/N	Items		Responses				
			A	O	S	N	$\bar{x}$
1.	My principal responds promptly to the needs of my subjects	Freq.	208	303	83	3	3.19
		%	34.8	50.8	13.9	0.5	
2.	My principal provides information on classroom observation to improve teachers' instructional performance	F	178	347	58	14	3.15
		%	29.8	58.1	9.7	2.3	
3.	My principal encourages departmental briefing to disseminate information on academic and administrative matters	F	234	280	68	15	3.23
		%	39.2	46.9	11.4	2.5	
4.	My principal intimates teachers with supervision schedule to enhance commitment to work	F	163	377	42	15	3.15
		%	27.3	63.1	7.0	2.5	
5.	My principal considers committee's report on special assignments	F	253	322	22	0	3.39
		%	42.4	53.9	3.7	0.0	
Percentage/Grand Mean		F	207	326	55	9	3.22
		%	34.7	54.6	9.2	1.5	

The analysis of data on Table 1.4 by percentage points indicated the level that school principals always (34.7%), often (54.6%), seldomly (9.2%), and never (1.5%) use feedback strategies in decision-making. The grand mean of 3.22 implied that majority of the principals employ the feedback strategies to enhance decision-making in secondary schools in Ondo North Senatorial District of Ondo State, Nigeria.

Table 1.5: Corporate Review Strategies

S/N	Items		Responses				$\bar{x}$
			A	O	S	N	
1.	My principal discusses instructional workloads with teachers to make necessary adjustment	Freq.	325	197	74	1	3.42
		%	54.4	33.0	12.4	0.2	
2.	My principal and heads of departments jointly carry out periodic evaluation and review of educational programs and activities	F	297	257	43	0	3.43
		%	49.7	43.0	7.2	0.0	
3.	My principal and teachers jointly carry out periodic evaluation and review of educational programs and activities	F	255	310	31	1	3.37
		%	42.7	51.9	5.2	0.2	
4.	My principal and teachers jointly carry out the needs assessment to determine important school projects	F	287	195	101	14	3.26
		%	48.1	32.7	16.9	2.3	
5.	My principal and teachers held periodic meetings to discuss and solve challenges on students' academic performance	F	297	266	19	15	3.42
		%	49.7	44.6	3.2	2.5	
6.	My principal and teachers jointly review the level of implementation of the school work plan to enhance performance	F	290	259	32	16	3.38
		%	48.6	43.4	5.4	2.7	
Percentage/Grand Mean		F	292	247	50	8	3.38
		%	48.9	41.2	8.4	1.5	

The analysis of data on Table 1.5 by percentage points revealed the level that school principals always (48.9%), often (41.2%), seldomly (8.4%), and never (1.5%) use corporate strategies in decision-making. The grand mean of 3.38 implied that the majority of the principals are moderate in the use of corporate review in decision-making in secondary schools in Ondo North Senatorial District of Ondo State, Nigeria.

Table 2: Weighted Average of Principal's Decision-making Strategies

S/N	Variables		Responses				$\bar{x}$
			A	O	S	N	
1.	Open door strategies	Freq.	247	264	67	19	3.24
		%	41.3	44.2	11.2	3.3	
2.	Collaboration strategies	F	263	277	50	7	3.34
		%	44.0	46.4	8.4	1.2	
3.	Consultative strategies	F	234	317	39	7	3.30
		%	39.2	53.0	6.5	1.3	
4.	Feedback strategies	F	207	326	55	9	3.22
		%	34.7	54.6	9.2	1.5	
5.	Corporate strategies	F	292	247	50	8	3.38
		%	48.9	41.2	8.4	1.5	
Percentage/Gran Mean		F	1,243	1,431	261	50	3.24
		%	41.6	47.9	8.7	1.8	

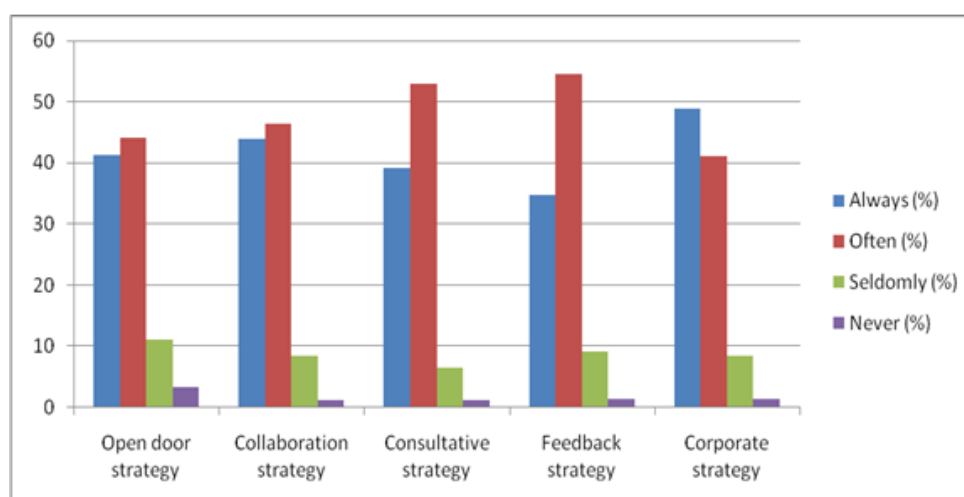


Figure 3: Level of Principals' Decision-making Strategies

The data presented on Table 2 and Figure 3, on the teachers' perception of the principals' decision-making strategies by percentage points revealed that 48.9% of the principals always use corporate review strategy and collaborative strategy (44.0%), while 54.6% often use feedback strategy and consultation strategy (53.0%), also 11.2% seldomly use open door strategy in decision-making process in secondary schools. The grand mean of 3.24 also indicated that the majority of the principals are moderate in the use of diverse strategies in decision-making process in secondary schools in Ondo North Senatorial District of Ondo State, Nigeria.

Research Questions 3: What is the level of teachers' productivity in secondary schools in Ondo North Senatorial district?

Table 3: Level of Teachers' Productivity

S/N	Items		Response				$\bar{x}$
			A	O	S	N	
1.	Teachers prepare lesson notes adequately and regularly	Freq.	75	63	7	4	3.40
		%	50.3	42.3	4.7	2.7	
2.	Teachers always use appropriate pedagogical skills	F	63	60	16	10	3.18
		%	42.3	40.3	10.7	6.7	
3.	Teachers have sound knowledge of subject matter	F	60	74	10	5	3.27
		%	40.3	49.7	6.7	3.4	
4.	Teachers make effective use of instructional materials	F	69	65	8	7	3.32
		%	46.3	43.6	5.4	4.7	
5.	Teachers conduct continuous assessment and mark test and assignments promptly	F	71	56	17	5	3.30
		%	47.7	37.6	11.4	3.4	
6.	Teachers give performance feedback to students promptly	F	59	70	10	10	3.19
		%	39.6	47.0	6.7	6.7	
7.	Teachers are effective in classroom management	F	62	65	14	8	3.21
		%	41.6	43.6	9.4	5.4	
8.	Teachers are effective in instructional review	F	48	78	17	6	3.13
		%	32.2	52.3	11.4	4.0	
9.	Teachers' keep accurate and adequate records of instructional activities	F	79	46	21	3	3.35
		%	53.0	30.9	14.1	2.0	
10.	Teachers complete the syllabus in their subjects within the stipulated time	F	63	61	22	3	3.23
		%	42.3	40.9	14.8	2.0	
Percentage/Grand Mean		F	649	638	142	61	3.26
		%	43.6	42.8	9.5	4.1	

The data presented in Table 2 on the level of teachers' productivity reflected the following percentage points in the performance of their instructional tasks: always (43.6%), often (42.8%), seldomly (9.5%) and never (4.1%). The grand mean of 3.26 depicts that a majority of the teachers maintained a moderate level of productivity in secondary schools in Ondo North Senatorial District.

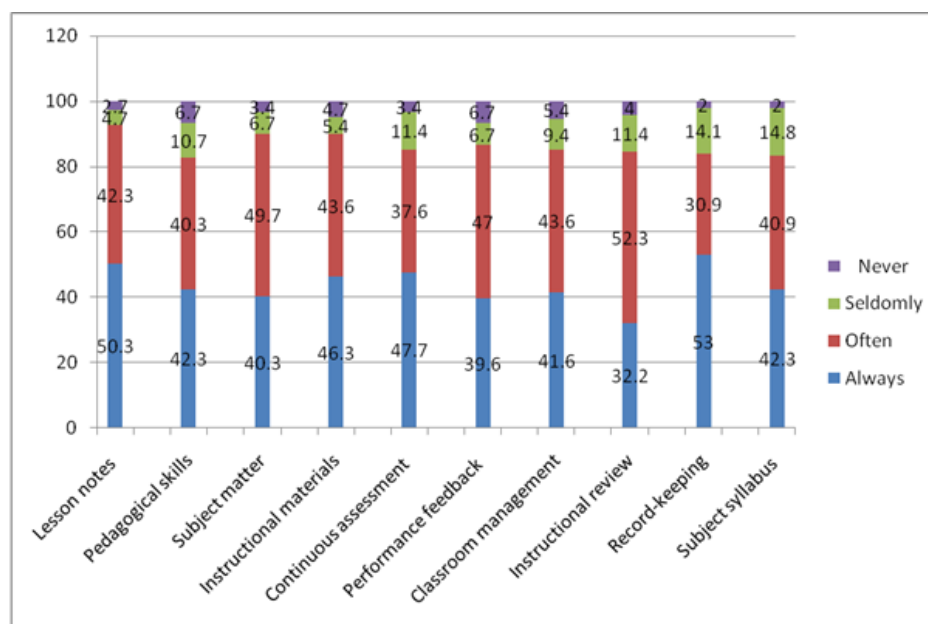


Figure 4: Level of Teachers' Productivity

Figure 4 above indicated the level of teachers' productivity as reflected in the percentage points of instructional tasks performed: always (32.2% to 50.3%), Often (30.9% to 52.3%), Seldomly (4.7% to 14.8%) and Never (2.0% to 6.7%).

Research Questions 4: What is the level of students' academic performance in secondary schools?

Table 4: Level of Students' Academic Performance in Secondary Schools

Academic Session	No. of candidates registered	No. of candidates with 5 credits including English and Mathematics		No. of candidates with 5 credits including English or Mathematics		No. of candidates with 5 credits without English and Mathematics		No. of candidates with less than 5 credits	
		No.	%	No.	%	No.	%	No.	%
2014/15	3308	1205	36.4	1167	35.3	612	18.5	324	9.8
2015/16	4179	1612	38.6	1397	33.4	826	19.7	344	8.3
2016/17	4540	1934	42.6	1629	35.9	666	14.7	311	6.9
Total / (%)	12,027	4751	39.5	4193	34.9	2104	17.5	979	8.1

The data presented on Table 4 indicated that out of 12,027 students registered for WASSCE from 2014/2015 to 2016/2017, 4751 students representing 39.5% had credits in a minimum of five subjects including English Language and Mathematics. 34.9% of the students had 5

credits passes including either English Language or Mathematics. However, 17.5% of the total registered students had 5 credits without a credit pass in English Language and Mathematics while only 8.1% of the students had less than five (5) credits.

The result above indicated that the percentage of students who obtained a minimum of five subjects including English Language and Mathematics was below the average level. in Ondo North Senatorial District. Students are expected to have a minimum of 5 credit passes including English and Mathematics which serve as the benchmark for admission into the Nigerian universities, thus, the low percentage of students with 5 credits including English and Mathematics denotes a low academic performance of secondary school students in Ondo North Senatorial District of Ondo State, Nigeria.

Hypothesis One: There is no significant contribution of principals' decision-making strategies to teachers' productivity in secondary schools

Data generated from 597 teachers respondents and 149 school administrators were correlated using Multiple Regression Analysis

Table 5: Multiple Regression on Principals' Decision-Making Strategies and Teachers' Productivity

Model	B	Std. Err	Beta	T	Sig.	R	R ²	F
(Constant)	11.643	4.780		2.436	.000			
Open door Strategy	.455	.292	.312	1.620	.009			
Collaborative Strategy	.277	.229	.566	1.407	.000			
Consultation Strategy	.976	.410	.644	1.943	.001	.778 ^a	.758	441.425
Feedback Strategy	.275	.218	.542	.989	.009			
Corporate Review Strategy	.255	.199	.512	.901	.001			

a. Dependent Variable: *Teachers' Productivity*

The result on Table 5; the Beta (β) weightings of the five predictor variables were given in the standardized coefficient column. The table shows that $R = 0.778$; $F = 441.425$ and $p = .000$. This implies that open door strategy, collaborative strategy, consultation strategy, feedback strategy and corporate review jointly accounted for 77.8% (0.778) of the total variables of teachers' productivity. On individual contribution, the consultation strategy was the best predictor, having contributed for 64.4% (0.644) of the variables. This is closely followed by the collaborative strategy; it contributed 56.6% (0.566) of the variables. This is also followed by the feedback strategy making a contribution of 54.2% (0.542) of the variables. The corporate review contributed 51.2% to teachers' productivity while the open-door strategy was the least predictor of teachers' productivity with a contribution of 31.2% (0.312). From the result presented, it could be concluded that principals' decision-making strategies had a statistically significant effect on teachers' productivity. However, some decision-making strategies tend to be more effective than others. Their different beta values represent their relative contributions to teachers' productivity.

Hypothesis Two: There is no significant relationship between principals' decision-making strategies and students' academic performance in secondary schools

Data generated from 597 teachers respondents and 149 school administrators were correlated using PPMC

Table 6: Relationship between Principals' Decision-making Strategies and Students' Academic Performance

Variables	N	Mean	SD	Df	r-cal	r-tab	Sig.
Principal Decision-making Strategies	597	3.24	2.591	625	0.626	0.195	$P < 0.05$
Students' Academic Performance	30	3.02	.947				

The result on Table 6 indicated that r-cal (0.626) is higher than r-tab (0.195) at 0.05 level of significance and 625 degrees of freedom. This implied that there was a significant relationship between principal decision-making strategies and students' academic performance. Therefore, the null hypothesis of no significant relationship was rejected.

5. Discussions

Analyses of data on the level of principal decision-making strategies reflected the following mean values: open door strategy ($\bar{x}=3.24$), collaborative strategy ($\bar{x}=3.34$), consultation strategy ($\bar{x}=3.30$), feedback strategy ($\bar{x}=3.22$) and corporate review strategy ($\bar{x}=3.38$). This implied that the majority of the principals are moderate in the use of decision-making strategies and moderately involved teachers in the decision-making process in secondary schools in Ondo North Senatorial District, Nigeria while more preference is placed on the use of the consultation strategy. This is in consonance with the finding of Omemu, (2018) who indicated that principals made use of all strategies during decision-making to ensure school goals are achieved. This is in agreement with Kayode (2009) who found that teachers' involvement in the decision-making process within the school enhanced teachers' level of productivity.

The result also indicated that teachers' maintain moderate level of productivity in secondary schools in Ondo North Senatorial District as reflected in the mean values of the following instructional tasks performance by teachers: adequate and regular preparation of lesson notes ($\bar{x} = 3.40$), appropriate pedagogical skills ($\bar{x} = 3.18$), sound knowledge of subject matter ($\bar{x} = 3.27$), effective utilization of instructional materials ($\bar{x} = 3.32$), giving performance feedback to students ($\bar{x} = 3.19$), conducting continuous assessment and marking tests and assignments ($\bar{x} = 3.30$), ensuring effective classroom management ($\bar{x} = 3.21$), instructional review ($\bar{x} = 3.13$), accurately keeping of records ($\bar{x} = 3.35$), and completion of syllabus within stipulated time ($\bar{x} = 3.23$). The moderate level of teachers' productivity has a strong connection with the principals' moderate level of involvement of teachers in decision-making processes in secondary schools. This is in line with the findings of Omemu (2018) who indicated that the level of teachers' involvement in decision-making tends to boost their morale and contribute largely to high levels of productivity.

The data presented on the level of students' academic performance in public secondary schools in Ondo North Senatorial District was below average when compared with benchmark that expected students to have a minimum of 5 credit passes and above in subjects including English Language and Mathematics which serves as the determinant for admission into Nigerian Universities. The relatively low level of students' academic performance implied

that more efforts are expected on the part of both the principals and teachers to improve productivity in secondary schools in Ondo North Senatorial District of Ondo State.

The result presented in Table 5 on the correlation among the principals' decision-making strategies and teachers' productivity revealed that the consultation strategy made more contribution to teachers' productivity. The result also showed a moderate level in the contribution of the collaborative strategy, feedback strategy and corporate review strategy while open door strategy made the least contribution to teachers' productivity. This finding corroborated Omemu (2018) who examined teachers' participation in decision-making and job performance in private secondary schools in Edo State and found that adequate involvement of teachers in decision-making process enhanced the level of commitment to instructional performance and achievement of educational goals.

The finding further corroborated Newman (2012) who found that significant positive correlation existed between teachers' participation in crucial school-based decisions and students' performance in Zimbabwean secondary schools. This finding was also in agreement with Diamond (2007) who found that the consultation strategy enhanced pedagogical decisions and had a direct positive effect on the level of teachers' productivity.

The result obtained in Table 5 further implied that teachers' productivity tends to increase when school principals provide prompt feedback to teachers on instructional tasks performance. This was in conformity with Correnti and Rowan (2007) who affirmed that the feedback and subsequent professional development are intended to help teachers improve their instructional practices and the level of students' academic achievement.

The analysis of data presented on Table 5 also indicated that the quality of principals' professional and administrative leadership in corporate review strategy had a positive influence on teachers' instructional tasks performance in secondary schools. This finding is in agreement with De Dreu, (2006) who mentioned that involvement of teachers in corporate decision-making improves teachers' morale and reduces interpersonal conflict, which in turn raises the level of achievement of the set goals.

The result presented on the seventh research hypothesis in table 6 indicated that there was a significant relationship between principals' decision-making strategies and students' academic performance. It could be inferred that the moderate level of teachers' involvement in decision-making processes placed more demand on the principals to raise the level of teachers' productivity. This finding is in agreement with Ayeni (2018) who found that there was a significant relationship between principals' decision-making strategies and teachers' productivity. Ayeni further stressed that the improved level of teachers' productivity had a positive influence on students' academic performance in secondary schools. Similarly, Newman (2012) found that the involvement of teachers in critical school-based decisions had a significant influence on students' academic performance.

6. Conclusion

In conclusion, the majority of the principals made effective use of collaborative, consultation, feedback and corporate review strategies while the level of teachers' involvement in decision-making was moderate, which accounted for the moderate level of teachers' productivity. This also accounted for approximately 40% of students who obtained five credit level passes and above in subjects including English Language and Mathematics in WASSCE between 2015 and 2017. It was obvious that open door strategy had the least contribution to decision-making

which implied that principals still have some inadequacies in their decisions that hinder teachers' productivity in secondary schools.

Based on the findings of the study the following recommendations were made:

1. School principals should intensify efforts in the use of collaborative, consultation, feedback and corporate review strategies to enhance decision-making and teachers' productivity in secondary schools.
2. Principals should improve in the use of open-door strategy to enhance the level of teachers' involvement in decision-making and increase productivity in secondary schools.
3. The State Ministry of Education should organize seminar/workshop to improve principals' skills and knowledge in the use of decision-making strategies to enhance teachers' productivity in secondary schools.

References

Adenipekun, O. I. (2018, July 4), WAEC releases 2018 May/June WASSCE result, says there's decline in pass rate. *The Punch*, p.14.

Ayeni, A. J. (2018). Principals' decision-making strategies and teachers' productivity in secondary schools in Ondo Central Senatorial District of Ondo State, Nigeria. *Global Journal of Management and Business Research*, 18(10), 18-30.

Boonme, N. (2001). *School-based management*. The ways and methods: National pilot study, USA.

Correnti, R., & Rowan, B. (2007). Opening up the black box: Literacy instruction in schools participating in three comprehensive school reform programs. *American Educational Research Journal*, 44(2), 298–338.

De Dreu, C. K. W. (2006). When too little or too much hurts: Evidence for a curvilinear relationship between task conflict and innovation in teams. *Journal of Management*, 32, 83-107.

De Nisi, A. S., & Sonesh, S. (2011). The appraisal and management of performance at work. In S. Zedeck (Ed.), *APA handbook of industrial and organizational psychology*, American Psychological Association, 2(1) 255–279.

Diamond, J. B. (2007). Where the rubber meets the road: Rethinking the connection between high-stakes testing policy and classroom instruction. *Sociology of Education*, 80(1), 285-313.

Federal Republic of Nigeria. (2013). *National Policy on Education*. Lagos: NERDC Press.

Kanuka, H., & Anderson, T. (2008). Online Social Interchange, Discord, and Knowledge Construction. *The Journal of Distance Education*, 13(1), 57-74.

Kayode O. I. (2009). Teachers involvement in decision-making as a correlate of school goal achievement. *Journal of Research in National Development*, 7(1), 1-4.

Keung, C. C. (2008) *Management practices for promoting shared decision – making*. The Hong Kong Institute of Education.

Khoza, M. M. (2003). 'Towards Effective Delivery: Synthesis Report on the project entitled 'Closing the gap between policy and implementation in South Africa', Research Report No. 98, Centre for Policy Studies, Johannesburg, Cited in P.A. Brynard, 'Policy implementation: Lessons for service delivery', Paper presented at the 27th African Association for Public

Administration and Management Annual Roundtable Conference, Livingstone, Zambia, 5-9 December 2005.

Kipkoech, L. C., & Chesire, S., (2011). The levels of teachers' involvement In managerial decision-making In schools in Kenya. *Problems of education in the 21st century*, 34(1), 79-87.

Lin, J. (2014). Teachers' involvement in school decision-making. *Journal of Studies in Education*, 4, 23-125.

Lunenburg, F. (2010). The decision making process. *National Forum of Educational Administration and Supervision Journal*, 27(4), 22-43.

Moorhead, G., & Griffin, W. R. (2000). *Organizational behavior: Managing people and organization*. 5th edition, A.I.T.B.S. Publishers and Distributors.

Newman, W. (2012). The influence of teacher participation in decision-making on student performance. *The Anthropologist*, 14(5), 425-431

Omemu, F. (2018). Teachers' Participation in decision-making and its effect on their job performance in private Secondary schools in Oredo Local Government Area of Edo State. *African Journal of Educational Assessors*, 6(2), 92-103.

Perry, U. (2011). *Management of public performance*. The way forward. Britain: Taristock.

Pounder, D. G. (2009). Teacher teams: Exploring job characteristics and work-related outcomes of work group enhancement. *Educational Administration Quarterly*, 35, 317-348.

Sarafidou, J., & Chatziioannidis, G. (2013). Teachers' participation in decision making and its impact on school and teachers. *The International Journal of Educational Management*, 27(1), 32-44.

Tanfox, S. (2010). *Applied human relationship*. New York: Praeger Publishers.

Taylor, E. S., & Tyler, J. H. (2012). The effect of evaluation on teacher performance. *American Economic Review*, 102(7), 3628-3651.

Uba-Mbibi, F. O. (2013). Decision – making and job satisfaction as correlates of teachers' job performance in junior secondary schools in Abia State, Nigeria. *Mediterranean Journal of Social Sciences*, 4(8), 107-122.

Vroom, H., & Jago, G. (1988). *The new leadership: managing participation in organizations*. Englewood Cliffs, NJ: Prentice-Hall.

Yates, F. J. (2001). Outsider impressions of naturalistic decision-making. In E. Salas & G. A. Klein (Eds.), *Linking expertise and naturalistic-decision making* (pp. 9-35). Mahwah, NJ: Lawrence Erlbaum Associates.

Yusuf, H. A. (2017). An evaluation of teachers' productivity in secondary schools: A confirmatory factor analysis approach. *Journal of curriculum and instruction*, 10(2) 74-80.

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