

Decentralisation of Education Management and its Influence on Teacher Output in Public School, Ghana

Alex Kyeremeh (PhD C)

College for Community and Organisation Development (CCOD)

Jacob Aaworb-nang Maabobr Kor (PhD)

Senior Lecturer

College for Community and Organisation Development (CCOD)

ABSTRACT

Although touted as having impacts on educational performance in some countries not much attention has been given to investigating the relationship between decentralisation of educational management and the teacher outcomes in the Ghanaian context. The study thus sought to investigate the effect of decentralised systems on teacher motivation in Ghanaian basic public schools, to determine the effect of decentralised systems on quality teacher in Ghanaian basic public schools, and to investigate the effect of decentralised systems on Teacher discipline in Ghanaian basic public schools. A concurrent mixed design was employed in this study, however only quantitative findings are reported. A multistage random sampling technique was used to select 408 public and private schools from nine regions. Primary data based on a Cross-sectional survey making use of a survey questionnaire. Multiple Linear Regression analysis was employed for analysis. Results from Multiple Regression analysis reveal adequacy of the models of the study ($R^2 > 0.5$). It was found that the District Education Oversight Committees roles in Personnel management, Organization of Instruction, had significant effect on teacher outputs including teacher motivation, teacher discipline, quality of teaching, and opportunities to learn. It was recommended that various Assemblies take the work of DEOC seriously and make resources available for their effective role in the management of Basic School to ensure effective implementation of decentralisation at the local level.

Keywords: Teacher Motivation, Decentralization, Output, Teacher discipline, Quality Teaching

INTRODUCTION

The old forms of delivering of public goods is experiencing changes. One of such change manifests in the provision of public services at the local or grassroots level with minimal control by the central government. Decentralisation is a system of governance where central administration transfers power to a local authority with the aim of being more responsive to citizens at the grassroots, and to enhance their participation in decision-making (Barr & Reid, 2014). A long-standing but complex subject, educational decentralisation has a wide range of implementation and impact options. Additionally, it is probably one of the most commonly employed policy solutions for increasing educational access and quality all across the world (Fiske, 1996; World Bank, 2007).

The implementation of decentralisation in the Education have been cited in prior research to have resulted in positive results over time including accountability, teacher motivation and teacher attendance (Snilstveit, Stevenson, Phillips et al. 2015; Litvack, 2017). According to Carr-Hill, Rolleston, Schendel and Waddington (2018), a systematic review devolving decision-making appeared to have a beneficial effect on dropout, repetition and teacher attendance. Studies including Skoufias and Shapiro (2006), Ikoya (2008), and Bruns et al. (2011), there are certain benefits to decentralising educational functions. Decentralisation, in the view point of Ikoya (2008), has led to less corrupt practices, better school infrastructure and security, and better use of available resources.

Basically decentralization of educational system decision involve decision-making that affects all four areas of education. These are decision relating to organization of instruction (curricula, textbooks, teaching methods, and schedule), human resource management (hiring/firing; pay; responsibility assignment; training); planning and structure; and financial resources and spending. Education decentralisation can be assessed using this method (Organisation for Economic Co-operation and Development 1998). With the advent of decentralisation in Ghana, various communities saw the need to take active part in education at the community level, this had push with ACT 506 of 1995 and ACT 778 of 2008 which place both basic and secondary education in Ghana under the district assemblies. The two ACTS mandated the assemblies to form educational oversight committees which is the highest education body in the districts, among their functions are to provide education infrastructure and materials and to form disciplinary committee to hear cases concerning pupils and teachers and prescribe sanctions. The District Education Oversight Committees (DEOCs) are by this mandate to oversee Instruction in schools, manage teaching Personnel, and engage in planning and provision of structures for schools, although certain aspects like teacher recruitment still remain centralized.

As one of the main expectations of decentralised systems is to employ its own competent staff who it can hire, fire and promote, this study holds that the more a local authority has the powers to hire, reward and fire a teacher, the more teachers would put in effort into their work to generate the needed output. If teachers are aware of close monitoring, supervision, and evaluation that would come from the local level instead of a national education office, they would be more conscientious and up to task

While a great number of some studies including Carr-Hill et al. (2018) reveal positive associations, others including Kuhon (2020) argue that there are no significant and even negative impact of decentralisation on educational outcomes, particularly when there are inadequate capacity to supervise and resource schools and also political influences at the local level. Unterhalter (2012) have also mentioned that there is growing evidence including Banerjee et al. (2008), Pherali, Smith, and Vaux (2011); Rocha, and Sharma (2008), and Rose (2003) that decentralisation reforms may have unintended and sometimes negative effects in certain political and economic circumstances. Surprisingly Leer (2016) found a significant negative effect on the number of hours that teachers spend in the classroom, for schools in rural communities. This finding could be due to low levels of monitoring by local and district education inspectors.

Indeed the concept of decentralization could be influence by political decisions in some countries. Hence, country settings, political systems, and philosophical viewpoints on education could influence implementation (Winkler, 1993; Karlsen, & Larrea, 2012). Some evidence from Ghanaian studies have document the role politics in the operations of the DEOCs. Such district and local power dynamics may affect participation, decision-making outcomes, and service delivery, as documented by Essuman and Akyeampong (2011). A participatory process at the local level, according to Hildyard, Pandurang, Wolvekamp, and Somasekhare (2001), may simply give possibilities for elite members to use their power to preserve exploitation and exclusion. While policymakers may believe that decentralising decision-making will improve accountability, the reality may be quite different, since the agency and voice of individuals are subordinated to the power dynamics working within a group. Unequal power relations between the educated and ignorant, the old and young, the rich and poor, may marginalize the contribution of the less powerful in the decision-making process (Botchway, 2000). According to studies conducted in several African nations, inequalities in socioeconomic level, race, caste, social class, location (i.e. urban/rural), and gender have resulted in unequal access to involvement in organizations such as PTAs and SMCs (Bush & Heystek 2003; Rose 2003; Essuman & Akyeampong, 2011).

Despite the widespread use of decentralisation strategies in educational systems globally, there is a paucity of robust and empirical evidence linking decentralisation to educational quality. Additionally, the association established by these extant studies (Skoufias & Shapiro, 2006; Ikoya, 2008; Bruns et al., 2011; Sakyi, 2008; Sakyi, Awoonor-Williams, Adzei, 2011; Channa, 2016; Snilstveit, Stevenson, Phillips et al., 2015, Carr-Hill, Rolleston, Schendel, and Waddington, 2018, Leer, 2016, and Kuhon, 2020) demonstrates conflicting findings about the impact of decentralisation on teacher outcomes. Again most of these students focus attention on a devolved educational context failing to establish the relationships of dencentralisation in a deconcentrated context on teacher discipline, motivation, and teaching. Thus, the study's findings provide context-specific evidence on the impact of decentralisation on students' learning results.

Specifically this study sought to:

- 1 determine the effect of decentralised systems on teacher motivation in Ghanaian basic public schools
- 2 determine the effect of decentralised systems on quality teacher in Ghanaian basic public schools
- 3 investigate the effect of decentralised systems on Teacher discipline in Ghanaian basic public schools

LITERATURE REVIEW

Studies including Ikoya (2008), and Bruns et al. (2011), and Osaigbovo (2013) support the view that Decentralisation of education lead to certain benefits including better management of schools, better utilization of school facilities, and more resources available for students. According to Osaigbovo (2013), groups tasked with guaranteeing the implementation of decentralised schools must be proactive in supervising school learning in order to maintain a standard. Again, the researcher against existing implementation difficulties indicated that timely provision of suitable resources, including teaching and learning materials, be made in order to increase educational quality. Although Ikoya (2008), Osaigbovo (2013) suggest that

need of decentralisation and also examined some challenges and practical measures which could be put in place to improve educational quality within the Nigerian context, they failed to explain the impact of decentralised systems on teacher outcomes as a result of decentralization.

Regular internal and external supervision helps to ensure effective instructional delivery and the maintenance of standards in the school system. Fadipe (2003), underscore the relevance of teachers contribution to a school's educational system, and noted the way in which problems such as teacher promotion, pay package, society perspective of the profession, and many more can encourage or demotivate teachers. The level of dedication teachers have to their jobs may be minimal if they are not motivated, and this could lead to the school's goals not being met. In Earl et al. (2003) view School leaders promote teaching and learning indirectly by their influence on staff motivation, commitment, and working environment.

McLeod (2007) citing Maslow's theory of Human Needs argues that there exist in people in a wide range of needs which determines behaviour. The case study by Cangemi (2009) demonstrates one instance of how the concept of needs can provide a framework for managers to change employee behavior. The managers' awareness of employee needs including recognition through promotion, salary increment, and basic resources for work can help them to modify their management style to improve organizational outcomes. Within the context, the education directorates have the task to initiate fundraising to augment the school funds for the acquisition of essential resources need for schools to be effective.

Despite the general argument in favour of the adoption of decentralisation, the appropriateness of decentralised education systems in every country have been questioned more recent literature. Hanushek, Link, and Woessmann (2013) found that school level autonomy although affects positively in developed and high-performing countries, it had negatively affected student achievement in developing and low-performing countries, despite the application of various reform ideas. Gershberg and Meade (2005) in an earlier explained that since educational decentralisation makes localities more dependent on their local resources, it means that certain aspects of equity could suffer in the absence of adequate compensatory mechanisms.

Similarly, Laing, Rivkin, Schiman, and Ward (2016) found that decentralisation is likely to have heterogeneous effects that benefit some schools but not others, and that the reform may be less beneficial in high poverty schools that lack management capacity and motivation to improve educational quality. Laing et al. (2016) examined the influence of local school councils (LSCs), which are responsible for principal hiring, evaluation, and contract renewal, as well as other management duties, on the efficacy of school principals and school quality. The study used a quantitative design. They highlighted that LSCs with greater managerial competence and stronger incentives to promote school quality can enhance principal effectiveness. Laing et al (2016) study, on the other hand, was limited by its design, as a quantitative design oversimplifies the practical role of the local school council and fails to provide insight into how the local council could assist principals in improving their effectiveness, particularly in high poverty schools.

Although, Proponents of decentralisation argue that bringing decisions closer to the people improves school quality and efficiency by ensuring that schools are more responsive to local educational needs, Leer (2016) highlight that the impact of decentralisation could vary substantially, due to the manner in which implementation of these reforms as much decisions making relies on local resources and management capacity. Leer (2016) study explored the effects of decentralisation on educational outcomes in elementary and junior secondary schools in Indonesia. The research also explored the impact of decentralisation on teacher effort. A difference-in-differences model was employed in analysis. The researcher found that generally found that no overall effect of decentralisation on achievement. Surprisingly the evidence from the study also suggest a negative effect of decentralisation on teacher effort, particularly in rural areas and among schools with inactive school committees. More specifically, Leer (2016) found that decentralisation of educational systems did not have significant effect on math and language achievement, however observed a weak negative effect on math achievement among schools with inactive school committees. With respect to the impact of decentralisation on teacher effort, Leer (2016) found a significant negative effect on the number of hours that teachers spend in the classroom, for schools in rural communities

Leer (2016) finding, thus, support the argument that decentralisation has done little to change what happens in the classroom as indicated by research including (Bjork, 2003). There are several explanations for this disconnect. Leer (2016) explained that the finding reflect the result of incomplete decentralisation, rather than poor school management decision making by district and school level leadership.

Sakyi (2008) noticed in a qualitative study that delegation of responsibility for management decision-making and planning was rarely implemented at the district level, and that financial and personnel choices remained centralized. Sakyi's (2008) study also identified a lack of staff capability, a lack of commitment, and inter-organizational conflict between health managers and local government officials as impediments to management decentralisation implementation in the area.

Similarly, Sakyi et al. (2011) identified several additional challenges, including insufficient funding, a lack of qualified personnel, insufficient logistics and equipment, poor interpersonal relationships, a lack of transparency and an effective operational system, a lack of incentives to motivate staff, political interference, poor infrastructure, and a high rate of illiteracy. A significant aspect that can quickly negate the favourable benefits of decentralisation is when local educators lack the necessary knowledge and abilities, as well as the motivation to do their tasks. However, the researchers did not examine the association between decentralised roles and educational outputs in schools. Again, the study's generalizability was hampered by its emphasis on a small number of rural areas in Ghana. To address issues of generalisation, the current study included schools from two or more districts that were randomly picked from each of nine randomly selected areas throughout the country.

Further study by Essuman and Akyeampong (2011) in Ghana suggests rural areas' local politics influence education decentralisation strategies' goal of better service education. They looked at how stakeholders in the school community view community participation. Using a multi-perspective approach, Essuman and Akyeampong (2011) looked at how community and school interactions work and the factors that influence them. PTAs and schools in Ghana's Central

Region used semi-structured questionnaires to collect data. In a case study by Essuman and Akyeampong (2011) the researchers also found that decentralisation enhanced community members' participation and representativeness in education beyond expectations. Essuman and Akyeampong (2011) also stated that in order to increase community participation, it is vital to meet the expectations of both schools and the community, and Essuman (2019) maintains that anything less than this reciprocity principle will weaken the link. It was also stated by the authors Essuman and Akyeampong (2011) that community participation was expected to help with teacher monitoring. The case study's conclusion Teachers preferred to report to convention officials such the school head, administrators, and district education supervisors rather than to members of the community. Teachers and school leaders were perceived by members of the SMC and PTA as not always wanting to encourage their participation in decision-making and often making decisions based on the opinions of individuals they considered to be more knowledgeable or to have a higher social standing, as made to building consensus, according to the researchers (Essuman & Akyeampong, 2011).

Decentralisation can lead to decisions being made at several levels that are overlapping and contradicting, as well as the phenomena of elite capture, which reduces democratic spaces. The teacher recruiting rules in Nepal are divisive, resulting in a variety of employment contracts and benefits. Local elite interests drive decentralised finances in Uganda and South Africa, which are dominated by a small group of better educated and networked persons who can present themselves as an effective conduit for handling these monies to donors, central government, and the local population. The poor and disadvantaged are so ignored or excluded as a result (Prinsen & Titeca, 2008; Sayed & Soudien, 2005).

Regular internal and external supervision helps to ensure effective instructional delivery and the maintenance of standards in the school system. Whereas principals and headteachers are responsible for internal oversight within schools, the Education Oversight committee is responsible for external oversight. Inspectors' principal role is to ensure that high standards are maintained and schools are operated in compliance with established regulations. While it has been asserted that principals have discharged their internal supervisory responsibilities, the external supervisors (inspectors from the Ministry of Education) appear to be ineffective, as they rarely visit schools to supervise school operations. This has invariably harmed schools' ability to deliver effective teaching and learning. According to Nolan and Hoover (2011), shortcomings in school supervision, both by district level officers and head teachers, and the restrictions of disciplinary processes jeopardize effective teaching and have a detrimental effect on students' academic performance. In a previous study conducted in Ghanaian schools, Adadzi (2006) discovered that Ghana has the highest rate of teacher absenteeism (43%), and the lowest rating for instructional efficiency (30.05%), when compared to the remaining three developing countries. At the 22nd World Economic Forum (WEF 2012) on Africa, Ghana's education minister reported that teacher absenteeism was at 45 percent.

METHODOLOGY

Population and sampling

Population consisted of 14405 school heads of primary school across 261 districts in all Sixteen (16) regions in Ghana (MOE, 2019). **Sample size** was statistically determined by using Yamane's (1967) formulae, which indicated a minimum of 361 schools to be appropriate. A sample of 408 schools were selected. A simple random sampling technique was used to select

9 regions, followed by a random selection of a total of 67 districts from the 9 regions, 408 public and private schools were next randomly selected.

INSTRUMENT DEVELOPMENT

To ensure content validity, measurement items for the research model were adapted from literature. The measures for DEOC on educational management were selected from the ACT and classified using OECD (1998). Measures consisted of Personnel Management (8 Items), on Organization of Instruction (2 items), and Planning and Structures (2 items). Teacher outputs teacher outputs were selected from reliable instruments including Kor (2018) these consist of Teacher motivation (2 items), Teacher discipline (3 items), and Quality teaching (5 items). Headteachers rated various roles of their District Education Oversight Committees, and teacher outputs using a five-point Likert scale ranging from 5 – strongly agree to 1 – strongly disagree.

Sample and data collection

A cross-sectional survey was conducted. Interviews were conducted, and structured questionnaire was developed, pre-tested and administered during the survey. Collection of data for the study begun in June, 2019 to August 2019 across nine regions in Ghana. Prior to data collection, the researcher sent letters of introduction form the Institution of study (AIT) to all the District Educational offices and Headteachers of participating schools for their consent.

Limitations of this Study

Although measures were put in place to ensure that the aims of the study are met it is, however, expected that the following unavoidable limitation could influence the outcomes of the present study. It was assumed that implementation of decentralization differs across countries and even within the same country, the Governance of schools at various levels of education differ, hence the findings of this study is limited to Ghanaian basic schools and may not be generalised at all levels of education and other educations beyond the context of study.

Again, as the study employed a cross-sectional data to examine relationships, observed effects may differ when a longitudinal study is conducted, as existing challenges and roles may vary over time and could influence the responses provided. It will therefore be recommended for future study that a longitudinal study be employed in investigating impacts of decentralization on school outcomes.

Delimitations

The population of this study included pupils from Ghanaian basic school. Hence the study was delimited in terms of the population. The reason for the choice of delimitation was, leadership structure at the basic level of education is in some ways different from that of that of tertiary education system.

DATA ANALYSIS AND RESULTS

Reliability Testing

Measurement and subsequent analysis of the primary data are both dependent on the reliability of the survey items used. The internal consistency Cronbach's coefficient alpha was used to measure the survey items' reliability in the current study. The more Cronbach's coefficient alpha there is, the more reliable the scale is. According to Borg and Gall (1983), a reliable and

valid research instrument has a coefficient of 0.75 or above. The estimate Cronbach's coefficient Alpha (α) values for all construct all constructs are presented in Table 4.2.

Table 4.2: Internal Consistence measures and the number of measurement items

	Cronbach's Alpha	N of Items
DOEC Roles	.796	12
Teacher Outputs	.777	11

Result from analysis reveals an acceptable value for measures for teacher outputs and for District Education Oversight Committees (DEOCs) roles. The finding confirms significant amount of consistency among measured items hence suggesting that items reliably measured the factors considered in the conceptual framework of the study.

How does Decentralisation of Educational Management Influence Teacher Outputs in Ghanaian Basic Public Schools?

Prior to addressing research questions the research sought to appraise the role of District Education Oversight Committees roles in Personnel management, Organization of Instruction, Planning and Structures at in Basic Schools. Summaries on measurement items for roles of their District Education Oversight Committees is presented in terms of the mean and standard deviation. Summaries for various items on three major roles are presented in Table 1.

Table 1: Descriptive Statistics on Headteachers appraisal of Education Oversight Committee role related to Personnel Management

	Mean	Std.	Skewness	
	Statistic	Deviation	Statistic	Std. Error
Personnel Management				
Involved in the recruitment of qualified teachers for schools	2.84	1.356	.090	.121
Supervise regular and punctual attendance of teachers and students at schools	3.68	1.007	-.243	.121
Monitor the moral behaviour of staffs and students and matters relating to general discipline	3.63	1.017	-.194	.121
Take disciplinary action or make recommendation on staffs who are found to act unprofessional.	3.60	.892	.094	.121
Proper performance assessment of staff in schools	3.33	1.068	-.401	.121
Address complaints relating to or from teachers, non-teaching staff and students	2.6364	1.20158	.190	.121
Determine provision of in-service training for teachers and school heads	2.5833	1.10967	.271	.121
Make recommendations on the rewards promotion, wage adjustment etc. for teachers and school heads	3.22	1.042	-.158	.121
Organization of Instruction				
Ensure the supply of recommended textbooks and other teaching and learning materials to schools	3.21	1.062	-.033	
Performance assessment used in schools are appropriate	3.51	1.138	-.277	
Planning and Structures				
Concerned with the conditions of school buildings and other infrastructural requirements of schools	3.54	1.046	-.352	.121
Ensure environmental cleanliness of schools and facilities therein	3.49	1.183	-.322	.121

Results in Table 1 suggest that headteachers of basic schools generally were of the view that the Education Oversight committee in their district were more involved in the Organization of Instruction (mean = 3.36) and Planning and Structures (mean = 3.52) than personnel management of staff in schools (mean = 3.17, SD = 1.09) involved in the personnel management of staff in schools.

With regard to specific personnel management measures, the mean response on *Supervise regular and punctual attendance of teachers and students at schools* (mean = 3.68, SD = 1.007), *Monitor the moral behaviour of staffs and students and matters relating to general discipline* (mean = 3.63, SD = 1.017), *Take disciplinary action or make recommendation on staffs who are found to*

act unprofessional (mean = 3.60, SD = 0.892), exceeded the general average rating for all Personnel Management items. The results suggest that with regard to these three personnel management activities headteachers believed that the District Education Oversight Committee in their district were often involved.

Result for remaining four activities, as indicated in table 1, suggest that headteachers believed that the Education Oversight committee in their district were sometimes involved.

With regard to Organization of Instruction results in Table 1 suggest that headteachers of basic schools suggest that whereas the Education Oversight committee in their district were often involved in the ensuring Performance assessment used in schools are appropriate (mean = 3.51, Std = 1.138), the DEOC were only sometimes involved in Ensure the supply of recommended textbooks and other teaching and learning materials to schools (mean = 3.21, Std = 1.062).

With regard to Planning and Structures results in Table 1 suggest that headteachers of basic schools were of the view that whereas the Education Oversight committee in their district were often Concerned with the conditions of school buildings and other infrastructural requirements of schools (mean = 3.54, SD = 1.046), and Ensure environmental cleanliness of schools and facilities therein (mean = 3.49, SD = 1.183).

Next, summary statistics of headteachers appraisal of teaching outputs are presented in terms of the mean and standard deviation in table 2.

Table 1: Descriptive Statistics on Headteachers appraisal of Teacher outputs

	Mean	Std.	Skewness
	Statistic	Deviation Statistic	Statistic
Teacher Motivation			
Teachers go the extra mile to assist students after class and address problems in class.	3.77	.974	-.379
Teachers encourage students and allow for constructive feedback and stimulates interest in the subject	4.05	.892	-.675
AVERAGE			
Teacher Discipline			
Head teacher monitors Attendance of teachers and students	4.51	.701	-1.107
Teachers are regular and punctual to school	3.93	.815	-.367
Teachers refrain from unprofessional relationships with students	4.23	.943	-1.211
AVERAGE			
	4.297	.833	
Quality of Teaching			
Teachers' method of lesson delivery is well understood by students	4.15	.856	-.667
Assessment activities provided by teachers including class work and homework are related to the learning objectives.	4.21	.836	-.681
Teachers use teaching and learning materials effectively to aid teaching and learning	3.90	.956	-.487
Teachers are well-prepared for class and address all questions from students	4.10	.951	-.768
The entire curriculum is covered in class before the end of academic year	3.46	1.005	-.009
AVERAGE			
	3.92	0.91	

Results in Table 2 suggest generally that headteachers of basic schools agree that teachers in their district are **motivated toward** their duty. This was evidence in an overall average of 3.975. This was also reflective in headteacher ratings on individual measures including Teachers go the extra mile to assist students after class and address problems in class (mean = 3.77, SD = .974) and Teachers encourage students and allow for constructive feedback and stimulates interest in the subject (mean = 4.05, SD = .892).

Again, results in Table 2 suggest generally that headteachers of basic schools agreed that there was **discipline** among teachers in their district. This was evidence in an overall average Teacher Discipline (mean = 4.33, SD = 0.808). This was also reflective in headteacher ratings on individual measures including Head teacher monitors Attendance of teachers and students (mean = 4.51, SD = .70), Teachers are regular and punctual to school (mean = 3.93, SD = .81), Teachers refrain from unprofessional relationships with students (mean = 4.23, SD = .83).

With regards to the **Quality of Teaching** in schools headteachers generally agreed to all items measured. This was evident in an overall average item as (mean = 3.92, SD = 0.91). This was also reflective in headteacher ratings for all individual measures including Teachers method of lesson delivery is well understood by students (mean = 4.15, SD = .856), Assessment activities provided by teachers including class work and homework are related to the learning objectives (mean = 4.21, SD = .836), Teachers use teaching and learning materials effectively to aid teaching and learning (mean = 3.90, SD = .956), Teachers are well-prepared for class and address all questions from students (mean = 4.10, SD = .951)

Prior to conducting inferential analysis using regression analysis, the researcher examined the assumptions of linearity and multi-co-linearity and were found to be satisfied. Correlation analysis and scatter plots were conducted in that regard (Not presented). Aggregated measure of Measures of Teacher Motivation, Teacher discipline, and Quality teaching (the dependent variables) were used in analysis.

Modelling involved three steps, first check of model adequacy by explore how much of the variance in the dependent variable is explained by the model. Next the overall significance of model is investigated. Finally model coefficient and significance of coefficient are determined. Model summary were estimated using SPSS version 21

Results from multiple regression are presented in table 3.

Table 4.3: Regression Coefficients for Teacher Motivation

MOTIVATION			DISCIPLINE			QUALITY TEACHING		
R	R Square	Adj R Square	R	R Square	Adj R Square	R	R Square	Adj R Square
.69 ^a	.48	.46	.73 ^a	.53	.52	.75	.56	.55
St. Beta	T	Sig.	St. Beta	T	Sig.	St. Beta	t	Sig.
(Const.)	6.647	.000		15.17	.000		12.59	.000
PM1	.025	.679	.498	-.008	-.239	.812	.033	.966
PM2	.178	3.611	.000	.370	7.954	.000	.270	5.997
PM3	-.010	-.222	.824	.131	3.157	.002	-.044	-1.095
PM4	.035	.788	.431	.104	2.496	.013	.053	1.309
PM5	.050	1.036	.301	.074	1.609	.108	.229	5.172
PM6	.127	3.090	.002	.010	.265	.791	.018	.473
PM7	-.012	-.318	.751	.055	1.489	.137	.088	2.443
PM8	.287	6.129	.000	-.021	-.468	.640	.161	3.766
MI1	-.016	-.338	.736	.092	2.059	.040	.045	1.036
MI2	.008	.146	.884	.246	4.925	.000	.252	5.217
S1	.392	7.831	.000	.032	.668	.505	.056	1.215
S2	-.029	-.662	.508	-.076	-1.858	.064	-.077	-1.922

Standardized Coefficients Beta

With regard to teacher motivation, the coefficient of determination ($R^2 = 0.474$) indicates that over 47% of the observed variability in the dependent variable, teacher motivation, could be explained by predictors included in the model. Although the model show inadequacy to predict the observed teacher motivation from a theoretical perspective can be explained by a number of variables which are beyond the scope of this study. The model did reach statistical significance ($F = 29.062$, p value = 0.000). The statistical significance means that the variation explained by the model is not due to chance. The finding implies that the model does explain a significant amount of variability.

Finally, in order to evaluate the effects of independent variables and the significance of these effects towards the prediction of the dependent variable, the coefficients from the multiple regression analysis along with the t test and probability values are presented in Table 3.

With regards to personnel management Results from multiple regression analysis presented in Table 3 shows that significant effects for three items on the dependent variable, teacher motivation.

The largest effect was observed for Concerned with the conditions of school buildings and other infrastructural requirements of schools ($\beta = .392$, p value = 0.000). This result suggests that at a 5% significant level the coefficient of the predictor variable was different from zero. This result implies that DEOC roles in showing concern with the conditions of school buildings and other infrastructural requirements of schools is significant in predicting the motivation of teachers. Again, the sign of the effect implies that holding all other predictors constant the teacher motivation will increase by 0.392 by a unit rise in DOECs role relating to the conditions of school buildings and other infrastructural requirements of schools.

Similarly, significant effects was estimated for *Make recommendations on the rewards promotion, wage adjustment etc. for teachers and school heads* ($\beta = .287$, p value = 0.000). The result also implies that DEOC roles in *Make recommendations on the rewards promotion, wage adjustment etc. for teachers and school heads* are relevant toward predicting teacher motivation. Again, the sign of the effect implies that holding all other predictors constant, a unit rise in DOECs role relating to *making recommendations on the rewards promotion, wage adjustment etc. for teachers and school heads* will lead to an increase of 0.287 in teacher motivation

Similarly, significant effects were estimated for items *Address complaints relating to or from teachers, non-teaching staff and students* ($\beta = .127$, p value = .002), and *Supervise regular and punctual attendance of teachers and students at schools* ($\beta = .178$, p value = 0.000).

It must be mentioned that although the Coefficient of determination did not exceed 0.5, and for that reason the observed significant coefficients (β_i) may be theoretically be said to be biased estimators, the fact remains that they are still have significant influence of these predictors on teacher motivation.

Non-significant effects were observed for remaining measures including: *Involved in the recruitment of qualified teachers for schools* ($\beta = 0.025$, p value = 0.498), *Monitor the moral behaviour of staffs and students and matters relating to general discipline* ($\beta = -0.01$, p value = 0.824), *Take disciplinary action or make recommendation on staffs who are found to act unprofessional.* ($\beta = 0.035$, p value = 0.431), *Proper performance assessment of staff in schools* ($\beta = 0.05$, p value = 0.301), *Determine provision of in-service training for teachers and school heads* ($\beta = -0.012$, p value = 0.751), *Ensure the supply of recommended textbooks and other teaching and learning materials to schools* ($\beta = -0.016$, p value = 0.736), *Performance assessment used in schools are appropriate* ($\beta = 0.008$, p value = 0.884), *Ensure environmental cleanliness of schools and facilities therein* ($\beta = -0.029$, p value = 0.508).

Next, with regard to the impact of DEOC activities on quality of teaching the coefficient of determination ($R^2 = 0.56$) indicates that 56% of the observed variability in the dependent variable, quality teaching could be explained by predictors included in the model. The result therefore suggests that the model is adequate to predict the observed data. Further the model results depicted in Table 3 revealed that the model reaches statistical significance ($F = 41.123$, p value = 0.000). The statistical significance means that the variation explained by the model is not due to chance. The finding implies that the model does explain a significant amount of variability.

Finally, in order to evaluate the effects of independent variables and the significance of these effects towards the prediction of the dependent variable, the coefficients from the multiple regression analysis along with the t test and probability values are presented in Table 3.

With regards to personnel management, the largest effect was observed for *Supervise regular and punctual attendance of teachers and students at schools* ($\beta = 0.27$, p value = 0.000). This result suggests that at a 5% significant level the coefficient of the predictor variable was different from zero. This result implies that DEOC roles in supervising regular and punctual attendance of teachers and students at schools is significant in predicting the quality teaching.

Again, the sign of the effect implies that holding all other predictors constant, a unit rise in DOECs role relating to supervising regular and punctual attendance of teachers and students at schools will lead to an increase of 0.27 in quality teaching.

Similarly, significant effects were estimated for that significant effects for measures: *Proper performance assessment of staff in schools* ($\beta = 0.229$, p value = 0.000), *Make recommendations on the rewards promotion, wage adjustment etc. for teachers and school heads* ($\beta = 0.161$, p value = 0.000), and *Performance assessment used in schools are appropriate* ($\beta = 0.252$, p value = 0.000), and *Determine provision of in-service training for teachers and school heads* ($\beta = 0.088$, p value = 0.015). The sign of the effects implies that holding all other predictors constant, a unit rise in DOECs roles will lead to an increase of the value of a coefficient β in quality teaching in each case.

However, the results in table 3 reveal non-significant effects for measures including *Involved in the recruitment of qualified teachers for schools* ($\beta = 0.033$, p value = 0.335), *Monitor the moral behaviour of staffs and students and matters relating to general discipline* ($\beta = -0.044$, p value = 0.274), *Take disciplinary action or make recommendation on staffs who are found to act unprofessional* ($\beta = 0.053$, p value = 0.191), *Address complaints relating to or from teachers, non-teaching staff and students* ($\beta = 0.018$, p value = 0.637), *Ensure the supply of recommended textbooks and other teaching and learning materials to schools* ($\beta = 0.045$, p value = 0.301), and *Concerned with the conditions of school buildings and other infrastructural requirements of schools* ($\beta = 0.056$, p value = 0.225), and *Ensure environmental cleanliness of schools and facilities therein* ($\beta = -0.077$, p value = 0.055).

Finally, with regard to the effect of DEOC roles on teacher discipline the coefficient of determination ($R^2 = 0.532$) indicates that approximately 52% of the observed variability in the dependent variable, teacher discipline could be explained by predictors included in the model. The result therefore suggests that the model is adequate to predict the observed data. The model results depicted in Table 3 revealed that the model reaches statistical significance ($F = 36.658$, p value = 0.000). The statistical significance means that the variation explained by the model is not due to chance. The finding implies that the model does explain a significant amount of variability.

Finally, in order to evaluate the effects of independent variables and the significance of these effects towards the prediction of the dependent variable, the coefficients from the multiple regression analysis along with the t test and probability values are presented in Table 3.

With regards to personnel management as presented in Table 3 reveal, the largest effect was observed for item *Performance assessment used in schools are appropriate* ($\beta = .246$, p value = .000). This result suggests that at a 5% significant level the coefficient of the predictor variable was different from zero. This result implies that DEOC roles in ensuring Performance assessment used in schools are appropriate is significant in predicting the teacher discipline in schools. The positive sign of *Performance assessment used in schools are appropriate*, implies that holding all other predictors constant the ensuring *performance assessment used in schools are appropriate* will increase teacher discipline by 0.246.

Significant effect was observed for items Monitor the moral behaviour of staffs and students and matters relating to general discipline ($\beta = 0.131$, p value = 0.002), Take disciplinary action or make recommendation on staffs who are found to act unprofessional ($\beta = 0.104$, p value = 0.013), Ensure the supply of textbooks and other teaching and learning materials to schools ($\beta = 0.092$, p value = 0.04), Performance assessment used in schools are appropriate ($\beta = 0.246$, p value = 0). These results implies that DEOC roles in toward decentralisation of educational management do impact on teacher discipline in schools.

Non-significant effects were observed for remaining measures including *Involved in the recruitment of qualified teachers for schools* ($\beta = -0.008$, p value = 0.812), *Proper performance assessment of staff in schools* ($\beta = 0.074$, p value = 0.108), *Address complaints relating to or from teachers, non-teaching staff and students* ($\beta = 0.01$, p value = 0.791), *Determine provision of in-service training for teachers and school heads* ($\beta = 0.055$, p value = 0.137), *Make recommendations on the rewards promotion, wage adjustment etc. for teachers and school heads* ($\beta = -0.021$, p value = 0.64), *Concerned with the conditions of school buildings and other infrastructural requirements of schools* ($\beta = 0.032$, p value = 0.505), and *Ensure environmental cleanliness of schools and facilities therein* ($\beta = -0.076$, p value = 0.064).

The results imply that DEOC roles in organization of instruction in class and some personnel management activities are significant toward the improvement of teacher discipline. In summary the results above, thus, support the first research hypothesis **H₀₁**: Decentralisation of education will have significant effect on Teacher outputs in Ghanaian basic public schools.

DISCUSSION OF FINDINGS

- The study found that decentralisation of Personnel management, Organization of Instruction, Planning and Structures had significant effect on teacher Motivation
- The study found that decentralisation of Personnel management, Organization of Instruction, Planning and Structures had significant effect on quality teaching
- The study found that decentralisation of Personnel management, Organization of Instruction, Planning and Structures had significant effect on teacher discipline

The finding of this study reveal that DEOCs roles in the decentralization of educational management do significantly affect teacher outputs including Teacher Motivation, Teacher Discipline, Quality of Teaching, and Opportunities to Learn. The finding of the study summary the results above, thus, support argument that Decentralisation of educational management will have significant effect on Teacher outputs in Ghanaian basic public schools.

The finding is consistent with Snilstveit, Stevenson, Phillips et al. (2015), Litvack (2017), and Carr-Hill, Rolleston, Schendel and Waddington (2018), who indicate that an improvement in the monitoring of schools will lead to an improvement teacher motivation and teacher attendance. Again, the finding is also in line with Guerrero et al. (2012), and Petrosino et al. (2012) who have shown a connection between on school-based decision-making, and teacher motivation and teacher attendance. For example, McKinney (2000) concluded that that teachers with improved career pay are not more intrinsically motivated than other colleagues.

The findings, however, contradict Leer (2016) who found a significant negative effect of Decentralization on the number of hours that teachers spend in the classroom, for schools in rural communities.

The finding Shindler (2009) study indicate that in order to promote the quality of teaching and learning and improve on the academic performance of learners then there is a need for schools to examine teaching pedagogies, classroom management techniques and assessment methods employed by teachers within the classroom.

With regard to finding on significant positive effect DEOCs role in planning and infrastructure on quality teaching and teacher motivation, Baba (2012) highlighted need for the teaching learning resources and physical infrastructure in schools, to enable teachers effectively deliver classroom instructional.

Whereas principals and headteachers are responsible for internal oversight within schools, the Education Oversight committee is responsible for external oversight. Inspectors' principal role is to ensure that high standards are maintained and schools are operated in compliance with established regulations. Numerous supervisory duties related to maintaining successful instruction in schools have been identified in the literature, including monitoring instructors' lesson plans. Visits to classrooms, on-going teacher training, and evaluation of assessment in classrooms. Glickman, Gordon, and Ross (1998), as well as Dufour and Eaker (1998), emphasized the importance of routine classroom supervision in order to assess the curriculum's status and pupils' experiences in order to identify ideas that can be shared and establish universal bases for curriculum planning in the classroom. Okech (2004) stated that this also enables the headteacher to identify potentials within the staff that can be tapped and developed in order to improve the quality of instructors and instruction, as well as the achievement of students.

The finding in practically implies that Zonal Offices of National Teaching Council which serves as external supervisors must double their efforts as their presence are not felt in schools. The Minister of Education must it a policy to demand quarterly reports from them. This makes them proactive to perform their mandated functions. Again, the National Teaching Council must evaluate on regular basis teachers' performance and offer regular in-service training to ensure that teacher is well quipped to teach to ensure pupils academic performance are improved.

Sakyi (2008), and Sakyi et al. (2011) enumerated some challenges to the implementation of decentralization in Ghana to include inadequate funds, lack of qualified personnel, inadequate logistics and equipment, poor interpersonal relationships, lack of transparency and a good operational system, lack of incentives to motivate the staff, political interference, poor infrastructure and high rate of illiteracy. To this end the Ghana Education Service must ensure that TLMs are delivered to schools before the commencement of each academic year so that teachers get the necessary tools to perform effectively as delays in supply of TLMs have adverse effect on teaching and learning.

All the major stakeholders in Education especially DEOCs, the Ministry of Education and Communities must come out with some incentive packages to teacher especially those in rural and deprived communities to motivate to go extra miles to improve teaching in public basic

schools. DEOCs must put systems in place to check teacher absenteeism and must ensure that teachers are paid according to number of days they attend school. This will ensure teachers presence and maximum use of contact hours which has positive relation in the performance of pupils.

Regular internal and external supervision helps to ensure effective instructional delivery and the maintenance of standards in the school system. Whereas principals and headteachers are responsible for internal oversight within schools, the Education Oversight committee is responsible for external oversight. Inspectors' principal role is to ensure that high standards are maintained and schools are operated in compliance with established regulations. While it has been asserted that principals have discharged their internal supervisory schools, the external supervisors (inspectors from the Ministry of Education) appear to be ineffective, as they rarely visit schools to supervise school operations. This has invariably harmed schools' ability to deliver effective teaching and learning. According to Bloom (2007), effective instruction monitoring is necessary to improve the classroom's teaching and learning quality.

Teacher recruitment can be more responsive if local governments and schools work together, says Heredia-Ortiz (2007: 49). Furthermore, support and training for teachers can be tailored to fill up any gaps in instructors' education or experience that are already known. Decentralising education can have a direct impact on teacher inputs, such as by requiring mandatory training and paying teachers for their progress in their careers.

Numerous supervisory duties related to maintaining successful instruction in schools have been identified in the literature, including monitoring instructors' lesson plans. Visits to classrooms, on-going teacher training, and evaluation of assessment in classrooms. Glickman et al. (1998), as well as Dufour and Eaker (1998), emphasized the importance of headteachers visiting classrooms on a regular basis to assess the curriculum's status and pupils' experiences, ascertain ideas that can be shared, and establish universal bases for curriculum planning. Classroom visitation should be a regular occurrence in schools.

SUMMARY

There is little doubt that decentralisation of educational management leads to active engagement of external supervision of classroom instruction, motoring of behavioural issues of teacher, motivating teachers, timely identification of structural and logistical deficits of schools. Decentralisation also allows for the engagement of other stakeholders in improving on the quality of education at the basic level. However, careful planning and recruitment of well-trained and experienced personnel will be needed to ensure effective implementation. For effective decision making and financial systems are devolved to avoid the adverse effects experienced in other developing countries.

DISCUSSION OF FINDINGS

How does Decentralisation of Educational Management Influence Teacher Outputs in Ghanaian Basic Public Schools?

Prior to addressing research questions the research sought to appraise the role of District Education Oversight Committees roles in Personnel management, Organization of Instruction, Planning and Structures at in Basic Schools. Summaries on measurement items for roles of

their District Education Oversight Committees is presented in terms of the mean and standard deviation.

Summaries for various items on three major roles are presented in Table 1.

Table 1: Descriptive Statistics on Headteachers appraisal of Education Oversight Committee role related to Personnel Management

	Mean	Std.	Skewness	
	Statistic	Deviation	Statistic	Std. Error
Personnel Management				
Involved In The Recruitment Of Qualified Teachers For Schools	2.84	1.356	.090	.121
Supervise Regular And Punctual Attendance Of Teachers And Students At Schools	3.68	1.007	-.243	.121
Monitor The Moral Behaviour Of Staffs And Students And Matters Relating To General Discipline	3.63	1.017	-.194	.121
Take Disciplinary Action Or Make Recommendation On Staffs Who Are Found To Act Unprofessional.	3.60	.892	.094	.121
Proper Performance Assessment Of Staff In Schools	3.33	1.068	-.401	.121
Address Complaints Relating To Or From Teachers, Non-Teaching Staff And Students	2.6364	1.20158	.190	.121
Determine Provision Of In-Service Training For Teachers And School Heads	2.5833	1.10967	.271	.121
Make Recommendations On The Rewards Promotion, Wage Adjustment Etc. For Teachers And School Heads	3.22	1.042	-.158	.121
Organization Of Instruction				
Ensure The Supply Of Recommended Textbooks And Other Teaching And Learning Materials To Schools	3.21	1.062	-.033	
Performance Assessment Used In Schools Are Appropriate	3.51	1.138	-.277	
Planning And Structures				
Concerned With The Conditions Of School Buildings And Other Infrastructural Requirements Of Schools	3.54	1.046	-.352	.121
Ensure Environmental Cleanliness Of Schools And Facilities Therein	3.49	1.183	-.322	.121

Results in Table 1 suggest that headteachers of basic schools generally were of the view that the Education Oversight committee in their district were more involved in the Organization of Instruction (mean = 3.36) and Planning and Structures (mean = 3.52) than personnel management of staff in schools (mean = 3.17, SD = 1.09) involved in the personnel management of staff in schools.

With regard to specific personnel management measures, the mean response on *Supervise regular and punctual attendance of teachers and students at schools* (mean = 3.68, SD = 1.007), *Monitor the moral behaviour of staffs and students and matters relating to general discipline* (mean = 3.63, SD = 1.017), *Take disciplinary action or make recommendation on staffs who are found to act unprofessional* (mean = 3.60, SD = 0.892), exceeded the general average rating for all Personnel Management items. The results suggest that with regard to these three personnel management activities headteachers believed that the District Education Oversight Committee in their district were often involved.

Result for remaining four activities, as indicated in table 1, suggest that headteachers believed that the Education Oversight committee in their district were sometimes involved.

With regard to Organization of Instruction results in Table 1 suggest that headteachers of basic schools suggest that whereas the Education Oversight committee in their district were often involved in the ensuring Performance assessment used in schools are appropriate (mean = 3.51, Std = 1.138), the DEOC were only sometimes involved in Ensure the supply of recommended textbooks and other teaching and learning materials to schools (mean = 3.21, Std = 1.062).

With regard to Planning and Structures results in Table 1 suggest that headteachers of basic schools were of the view that whereas the Education Oversight committee in their district were often Concerned with the conditions of school buildings and other infrastructural requirements of schools (mean = 3.54, SD = 1.046), and Ensure environmental cleanliness of schools and facilities therein (mean = 3.49, SD = 1.183).

Next, summary statistics of headteachers appraisal of teaching outputs are presented in terms of the mean and standard deviation in table 2.

Table 1: Descriptive Statistics on Headteachers appraisal of Teacher outputs

	Mean Statistic	Std. Deviation Statistic	Skewness Statistic
Teacher Motivation			
Teachers go the extra mile to assist students after class and address problems in class.	3.77	.974	-.379
Teachers encourage students and allow for constructive feedback and stimulates interest in the subject	4.05	.892	-.675
AVERAGE			
Teacher Discipline			
Head teacher monitors Attendance of teachers and students	4.51	.701	-1.107
Teachers are regular and punctual to school	3.93	.815	-.367
Teachers refrain from unprofessional relationships with students	4.23	.943	-1.211
AVERAGE			
	4.297	.833	
Quality of Teaching			
Teachers' method of lesson delivery is well understood by students	4.15	.856	-.667
Assessment activities provided by teachers including class work and homework are related to the learning objectives.	4.21	.836	-.681
Teachers use teaching and learning materials effectively to aid teaching and learning	3.90	.956	-.487
Teachers are well-prepared for class and address all questions from students	4.10	.951	-.768
The entire curriculum is covered in class before the end of academic year	3.46	1.005	-.009
AVERAGE			
	3.92	0.91	

Results in Table 2 suggest generally that headteachers of basic schools agree that teachers in their district are **motivated toward** their duty. This was evidence in an overall average of 3.975. This was also reflective in headteacher ratings on individual measures including Teachers go the extra mile to assist students after class and address problems in class (mean = 3.77, SD = .974) and Teachers encourage students and allow for constructive feedback and stimulates interest in the subject (mean = 4.05, SD = .892).

Again, results in Table 2 suggest generally that headteachers of basic schools agreed that there was **discipline** among teachers in their district. This was evidence in an overall average Teacher Discipline (mean = 4.33, SD = 0.808). This was also reflective in headteacher ratings on individual measures including Head teacher monitors Attendance of teachers and students (mean = 4.51, SD = .70), Teachers are regular and punctual to school (mean = 3.93, SD = .81), Teachers refrain from unprofessional relationships with students (mean = 4.23, SD = .83).

With regards to the **Quality of Teaching** in schools headteachers generally agreed to all items measured. This was evident in an overall average item as (mean = 3.92, SD = 0.91). This was also reflective in headteacher ratings for all individual measures including Teachers method of lesson delivery is well understood by students (mean = 4.15, SD = .856), Assessment activities provided by teachers including class work and homework are related to the learning objectives

(mean = 4.21, SD = .836), Teachers use teaching and learning materials effectively to aid teaching and learning (mean = 3.90, SD = .956), Teachers are well-prepared for class and address all questions from students (mean = 4.10, SD = .951)

Prior to conducting inferential analysis using regression analysis, the researcher examined the assumptions of linearity and multi-co-linearity and were found to be satisfied. Correlation analysis and scatter plots were conducted in that regard (Not presented). Aggregated measure of Measures of Teacher Motivation, Teacher discipline, and Quality teaching (the dependent variables) were used in analysis.

Modelling involved three steps, first check of model adequacy by explore how much of the variance in the dependent variable is explained by the model. Next the overall significance of model is investigated. Finally model coefficient and significance of coefficient are determined. Model summary were estimated using SPSS version 21

Results from multiple regression are presented in table 3.

Table 4.3: Regression Coefficients for Teacher Motivation

	MOTIVATION			DISCIPLINE			QUALITY TEACHING		
	R	R Square	Adj R Square	R	R Square	Adj R Square	R	R Square	Adj R Square
	.69 ^a	.48	.46	.73 ^a	.53	.52	.75	.56	.55
	St. Beta	T	Sig.	St. Beta	T	Sig.	St. Beta	T	Sig.
(Const.)		6.647	.000		15.17	.000		12.59	.000
PM1	.025	.679	.498	-.008	-.239	.812	.033	.966	.335
PM2	.178	3.611	.000	.370	7.954	.000	.270	5.997	.000
PM3	-.010	-.222	.824	.131	3.157	.002	-.044	-1.095	.274
PM4	.035	.788	.431	.104	2.496	.013	.053	1.309	.191
PM5	.050	1.036	.301	.074	1.609	.108	.229	5.172	.000
PM6	.127	3.090	.002	.010	.265	.791	.018	.473	.637
PM7	-.012	-.318	.751	.055	1.489	.137	.088	2.443	.015
PM8	.287	6.129	.000	-.021	-.468	.640	.161	3.766	.000
MI1	-.016	-.338	.736	.092	2.059	.040	.045	1.036	.301
MI2	.008	.146	.884	.246	4.925	.000	.252	5.217	.000
S1	.392	7.831	.000	.032	.668	.505	.056	1.215	.225
S2	-.029	-.662	.508	-.076	-1.858	.064	-.077	-1.922	.055

Standardized Coefficients Beta

With regard to teacher motivation, the coefficient of determination ($R^2 = 0.474$) indicates that over 47% of the observed variability in the dependent variable, teacher motivation, could be explained by predictors included in the model. Although the model show inadequacy to predict the observed teacher motivation from a theoretical perspective can be explained by a number of variables which are beyond the scope of this study. The model did reach statistical significance ($F = 29.062$, p value = 0.000). The statistical significance means that the variation explained by the model is not due to chance. The finding implies that the model does explain a significant amount of variability.

Finally, in order to evaluate the effects of independent variables and the significance of these effects towards the prediction of the dependent variable, the coefficients from the multiple regression analysis along with the t test and probability values are presented in Table 3.

With regards to personnel management Results from multiple regression analysis presented in Table 3 shows that significant effects for three items on the dependent variable, teacher motivation.

The largest effect was observed for Concerned with the conditions of school buildings and other infrastructural requirements of schools ($\beta = .392$, p value = 0.000). This result suggests that at a 5% significant level the coefficient of the predictor variable was different from zero. This result implies that DEOC roles in showing concern with the conditions of school buildings and other infrastructural requirements of schools is significant in predicting the motivation of teachers. Again, the sign of the effect implies that holding all other predictors constant the teacher motivation will increase by 0.392 by a unit rise in DOECs role relating to the conditions of school buildings and other infrastructural requirements of schools.

Similarly, significant effects was estimated for *Make recommendations on the rewards promotion, wage adjustment etc. for teachers and school heads* ($\beta = .287$, p value = 0.000). The result also implies that DEOC roles in *Make recommendations on the rewards promotion, wage adjustment etc. for teachers and school heads* are relevant toward predicting teacher motivation. Again, the sign of the effect implies that holding all other predictors constant, a unit rise in DOECs role relating to *making recommendations on the rewards promotion, wage adjustment etc. for teachers and school heads* will lead to an increase of 0.287 in teacher motivation

Similarly, significant effects were estimated for items *Address complaints relating to or from teachers, non-teaching staff and students* ($\beta = .127$, p value = .002), and *Supervise regular and punctual attendance of teachers and students at schools* ($\beta = .178$, p value = 0.000).

It must be mentioned that although the Coefficient of determination did not exceed 0.5, and for that reason the observed significant coefficients (β_i) may be theoretically be said to be biased estimators, the fact remains that they are still have significant influence of these predictors on teacher motivation.

Non-significant effects were observed for remaining measures including: *Involved in the recruitment of qualified teachers for schools* ($\beta = 0.025$, p value = 0.498), *Monitor the moral behaviour of staffs and students and matters relating to general discipline* ($\beta = -0.01$, p value = 0.824), *Take disciplinary action or make recommendation on staffs who are found to act unprofessional.* ($\beta = 0.035$, p value = 0.431), *Proper performance assessment of staff in schools* ($\beta = 0.05$, p value = 0.301), *Determine provision of in-service training for teachers and school heads* ($\beta = -0.012$, p value = 0.751), *Ensure the supply of recommended textbooks and other teaching and learning materials to schools* ($\beta = -0.016$, p value = 0.736), *Performance assessment used in schools are appropriate* ($\beta = 0.008$, p value = 0.884), *Ensure environmental cleanliness of schools and facilities therein* ($\beta = -0.029$, p value = 0.508).

Next, with regard to the impact of DEOC activities on quality of teaching the coefficient of determination ($R^2 = 0.56$) indicates that 56% of the observed variability in the dependent variable, quality teaching could be explained by predictors included in the model. The result therefore suggests that the model is adequate to predict the observed data. Further the model results depicted in Table 3 revealed that the model reaches statistical significance ($F = 41.123$, p value = 0.000). The statistical significance means that the variation explained by the model is not due to chance. The finding implies that the model does explain a significant amount of variability.

Finally, in order to evaluate the effects of independent variables and the significance of these effects towards the prediction of the dependent variable, the coefficients from the multiple regression analysis along with the t test and probability values are presented in Table 3.

With regards to personnel management, the largest effect was observed for *Supervise regular and punctual attendance of teachers and students at schools* ($\beta = 0.27$, p value = 0.000). This result suggests that at a 5% significant level the coefficient of the predictor variable was different from zero. This result implies that DEOC roles in supervising regular and punctual attendance of teachers and students at schools is significant in predicting the quality teaching. Again, the sign of the effect implies that holding all other predictors constant, a unit rise in DEOCs role relating to supervising regular and punctual attendance of teachers and students at schools will lead to an increase of 0.27 in quality teaching.

Similarly, significant effects were estimated for that significant effects for measures: *Proper performance assessment of staff in schools* ($\beta = 0.229$, p value = 0.000), *Make recommendations on the rewards promotion, wage adjustment etc. for teachers and school heads* ($\beta = 0.161$, p value = 0.000), and *Performance assessment used in schools are appropriate* ($\beta = 0.252$, p value = 0.000), and *Determine provision of in-service training for teachers and school heads* ($\beta = 0.088$, p value = 0.015). The sign of the effects implies that holding all other predictors constant, a unit rise in DEOCs roles will lead to an increase of the value of a coefficient β in quality teaching in each case.

However, the results in table 3 reveal non-significant effects for measures including *Involved in the recruitment of qualified teachers for schools* ($\beta = 0.033$, p value = 0.335), *Monitor the moral behaviour of staffs and students and matters relating to general discipline* ($\beta = -0.044$, p value = 0.274), *Take disciplinary action or make recommendation on staffs who are found to act unprofessional* ($\beta = 0.053$, p value = 0.191), *Address complaints relating to or from teachers, non-teaching staff and students* ($\beta = 0.018$, p value = 0.637), *Ensure the supply of recommended textbooks and other teaching and learning materials to schools* ($\beta = 0.045$, p value = 0.301), and *Concerned with the conditions of school buildings and other infrastructural requirements of schools* ($\beta = 0.056$, p value = 0.225), and *Ensure environmental cleanliness of schools and facilities therein* ($\beta = -0.077$, p value = 0.055).

Finally, with regard to the effect of DEOC roles on teacher discipline the coefficient of determination ($R^2 = 0.532$) indicates that approximately 52% of the observed variability in the dependent variable, teacher discipline could be explained by predictors included in the model. The result therefore suggests that the model is adequate to predict the observed data. The model results depicted in Table 3 revealed that the model reaches statistical significance ($F =$

36.658, p value = 0.000). The statistical significance means that the variation explained by the model is not due to chance. The finding implies that the model does explain a significant amount of variability.

Finally, in order to evaluate the effects of independent variables and the significance of these effects towards the prediction of the dependent variable, the coefficients from the multiple regression analysis along with the t test and probability values are presented in Table 3.

With regards to personnel management as presented in Table 3 reveal, the largest effect was observed for item *Performance assessment used in schools are appropriate* ($\beta = .246$, p value = .000). This result suggests that at a 5% significant level the coefficient of the predictor variable was different from zero. This result implies that DEOC roles in ensuring Performance assessment used in schools are appropriate is significant in predicting the teacher discipline in schools. The positive sign of *Performance assessment used in schools are appropriate*, implies that holding all other predictors constant the ensuring *performance assessment used in schools are appropriate* will increase teacher discipline by 0.246.

Significant effect was observed for items Monitor the moral behaviour of staffs and students and matters relating to general discipline ($\beta = 0.131$, p value = 0.002), Take disciplinary action or make recommendation on staffs who are found to act unprofessional ($\beta = 0.104$, p value = 0.013), Ensure the supply of textbooks and other teaching and learning materials to schools ($\beta = 0.092$, p value = 0.04), Performance assessment used in schools are appropriate ($\beta = 0.246$, p value = 0). These results implies that DEOC roles in toward decentralisation of educational management do impact on teacher discipline in schools.

Non-significant effects were observed for remaining measures including *Involved in the recruitment of qualified teachers for schools* ($\beta = -0.008$, p value = 0.812), *Proper performance assessment of staff in schools* ($\beta = 0.074$, p value = 0.108), *Address complaints relating to or from teachers, non-teaching staff and students* ($\beta = 0.01$, p value = 0.791), *Determine provision of in-service training for teachers and school heads* ($\beta = 0.055$, p value = 0.137), *Make recommendations on the rewards promotion, wage adjustment etc. for teachers and school heads* ($\beta = -0.021$, p value = 0.64), *Concerned with the conditions of school buildings and other infrastructural requirements of schools* ($\beta = 0.032$, p value = 0.505), and *Ensure environmental cleanliness of schools and facilities therein* ($\beta = -0.076$, p value = 0.064).

The results imply that DEOC roles in organization of instruction in class and some personnel management activities are significant toward the improvement of teacher discipline. In summary the results above, thus, support the first research hypothesis ***H₀₁***: Decentralisation of education will have significant effect on Teacher outputs in Ghanaian basic public schools.

DISCUSSION OF FINDINGS

- The study found that decentralisation of Personnel management, Organization of Instruction, Planning and Structures had significant effect on teacher Motivation
- The study found that decentralisation of Personnel management, Organization of Instruction, Planning and Structures had significant effect on quality teaching

- The study found that decentralisation of Personnel management, Organization of Instruction, Planning and Structures had significant effect on teacher discipline

The finding of this study reveal that DEOCs roles in the decentralization of educational management do significantly affect teacher outputs including Teacher Motivation, Teacher Discipline, Quality of Teaching, and Opportunities to Learn. The finding of the study summary the results above, thus, support argument that Decentralisation of educational management will have significant effect on Teacher outputs in Ghanaian basic public schools.

The finding is consistent with Snilstveit, Stevenson, Phillips et al. (2015), Litvack (2017), and Carr-Hill, Rolleston, Schendel and Waddington (2018), who indicate that an improvement in the monitoring of schools will lead to an improvement teacher motivation and teacher attendance. Again, the finding is also in line with Guerrero et al. (2012), and Petrosino et al. (2012) who have shown a connection between on school-based decision-making, and teacher motivation and teacher attendance. For example, McKinney (2000) concluded that that teachers with improved career pay are not more intrinsically motivated than other colleagues.

The findings, however, contradict Leer (2016) who found a significant negative effect of Decentralization on the number of hours that teachers spend in the classroom, for schools in rural communities.

The finding Shindler (2009) study indicate that in other to promote the quality of teaching and learning and improve on the academic performance of learners then there is a need for schools to examine teaching pedagogies, classroom management techniques and assessment methods employed by teachers within the classroom.

With regard to finding on significant positive effect DEOCs role in planning and infrastructure on quality teaching and teacher motivation, Baba (2012) highlighted need for the teaching learning resources and physical infrastructure in schools, to enable teachers effectively deliver classroom instructional.

Whereas principals and headteachers are responsible for internal oversight within schools, the Education Oversight committee is responsible for external oversight. Inspectors' principal role is to ensure that high standards are maintained and schools are operated in compliance with established regulations. Numerous supervisory duties related to maintaining successful instruction in schools have been identified in the literature, including monitoring instructors' lesson plans. Visits to classrooms, on-going teacher training, and evaluation of assessment in classrooms. Glickman, Gordon, and Ross (1998), as well as Dufour and Eaker (1998), emphasized the importance of routine classroom supervision in order to assess the curriculum's status and pupils' experiences in order to identify ideas that can be shared and establish universal bases for curriculum planning in the classroom. Okech (2004) stated that this also enables the headteacher to identify potentials within the staff that can be tapped and developed in order to improve the quality of instructors and instruction, as well as the achievement of students.

The finding in practically implies that Zonal Offices of National Teaching Council which servers as external supervisors must double their efforts as their presence are not felt in schools The Minister of Education must it a policy to demand quarterly reports from them. This makes them proactive to perform their mandated functions. Again, the National Teaching Council must evaluate on regular basis teachers' performance and offer regular in-service training to ensure that teacher is well quipped to teach to ensure pupils academic performance are improved.

Sakyi (2008), and Sakyi et al. (2011) enumerated some challenges to the implementation of decentralization in Ghana to include inadequate funds, lack of qualified personnel, inadequate logistics and equipment, poor interpersonal relationships, lack of transparency and a good operational system, lack of incentives to motivate the staff, political interference, poor interference, poor infrastructure and high rate of illiteracy. To this end the Ghana Education Service must ensure that TLMs are delivered to schools before the commencement of each academic year so that teachers get the necessary tools to perform effectively as delays in supply of TLMs have adverse effect on teaching and learning.

All the major stakeholders in Education especially DEOCs, the Ministry of Education and Communities must come out with some incentive packages to teacher especially those in rural and deprived communities to motivate to go extra miles to improve teaching in public basic schools. DEOCs must put systems in place to check teacher absenteeism and must ensure that teachers are paid according to number of days they attend school. This will ensure teachers presence and maximum use of contact hours which has positive relation in the performance of pupils.

Regular internal and external supervision helps to ensure effective instructional delivery and the maintenance of standards in the school system. Whereas principals and headteachers are responsible for internal oversight within schools, the Education Oversight committee is responsible for external oversight. Inspectors' principal role is to ensure that high standards are maintained and schools are operated in compliance with established regulations. While it has been asserted that principals have discharged their internal supervisory schools, the external supervisors (inspectors from the Ministry of Education) appear to be ineffective, as they rarely visit schools to supervise school operations. This has invariably harmed schools' ability to deliver effective teaching and learning. According to Bloom (2007), effective instruction monitoring is necessary to improve the classroom's teaching and learning quality.

Teacher recruitment can be more responsive if local governments and schools work together, says Heredia-Ortiz (2007: 49). Furthermore, support and training for teachers can be tailored to fill up any gaps in instructors' education or experience that are already known. Decentralising education can have a direct impact on teacher inputs, such as by requiring mandatory training and paying teachers for their progress in their careers.

Numerous supervisory duties related to maintaining successful instruction in schools have been identified in the literature, including monitoring instructors' lesson plans. Visits to classrooms, on-going teacher training, and evaluation of assessment in classrooms. Glickman et al. (1998), as well as Dufour and Eaker (1998), emphasized the importance of headteachers visiting classrooms on a regular basis to assess the curriculum's status and pupils' experiences,

ascertain ideas that can be shared, and establish universal bases for curriculum planning. Classroom visitation should be a regular occurrence in schools.

CONCLUSION

There is little doubt that decentralisation of educational management leads to active engagement of external supervision of classroom instruction, motoring of behavioural issues of teacher, motivating teachers, timely identification of structural and logistical deficits of schools. Decentralisation also allows for the engagement of other stakeholders in improving on the quality of education at the basic level. However, careful planning and recruitment of well-trained and experienced personnel will be needed to ensure effective implementation. For effective decision making and financial systems are devolved to avoid the adverse effects experienced in other developing countries.

RECOMMENDATIONS

Recommendations to Ministry of Education

As regards to the findings of this study, the following recommendations are made to the Ministry of Education so as to improve the effective implementation of decentralization of educational management at the district level.

- Effective supervision is very important for effective teaching that leads to student performance from external (National Inspectorate) to the school level.
- There is the need to harmonise Ghana Education Service and Education Act 556 (1998) and 778 (2008) respectively to avoid existing conflict for effective decentralization of Public Basic Schools in Ghana

Recommendations to Schools

As regards to the findings of this study, the following recommendations are made to improve the effective implementation of decentralisation of educational management at the school level.

- Regular in-service training for teachers at local level is very relevant for professional development which enhances effective teaching and students' academic performance.
- Parents and Community leaders and all other major stakeholders in education must be encouraged to improve infrastructure and take active part in school management through advocacy and orientation for them to appreciate the full benefits of school-based involvement to their wards.
- Headteachers must be motivated to monitor and enforce discipline at school level and be encouraged to practice distributed leadership in schools.

Recommendation for future Research

- To address part of limitation of this study Cross-country research using Methodology of this study is recommended for generalisation for future policy formulation
- Decentralisation and the role of parents to quality education in public basic schools.
- Decentralisation of education management and its effect on urban, peri-urban and deprived community schools' performance.
- Finally, as the study employed a cross-sectional data to examine relationships, observed effects may differ when a longitudinal study is conducted. It is therefore recommended

for future study that a longitudinal study be employed in investigating impacts of decentralization on school outcomes.

References

- Abreh, M. K. (2017). Involvement of school management committees in school-based management: experiences from two districts of Ghana. *Educational Planning*, 24(2), 61–75.
- Adadzi, H. (2006). Efficient Learning for the Poor: Insights from the frontier of cognitive Neuroscience. The international Bank for Reconstruction and Development/The World Bank, Washington D.C, USA.
- Afful (2014). *Socio-Economic Background and Academic Performance of Children in Basic Schools in Asikuma-Odoben-Brakwa District, Ghana*. (Master Thesis) University Of Education, Winneba.
- Agency for Special Needs and Inclusive Education (2017). *Decentralisation in Education Systems – Seminar Report*, 26. [https://www.european-agency.org/sites/default/files/Decentralisation in Education Systems_0.pdf](https://www.european-agency.org/sites/default/files/Decentralisation%20in%20Education%20Systems_0.pdf)
- Aheto-Tsegah, C. (2011). Education in Ghana – status and challenges. *Commonwealth Education Partnerships*, 33(2), 27–30. Available at <http://www.cedol.org/wp-content/uploads/2012/02/Charles-Aheto-Tsegah-article.pdf>
- Alkadry, M. G., & Nyhan, R. C. (2005). The impact of rational organisations on public administrators: a structural equation model. *International Journal of Organisation Theory and Behaviour*, 8(2), 155–173.
- Ajarfor, A. S. (Nov, 2014). Ghana's Education System Needs A Devolution: The State of Ghana's Educational Decentralisation Policy. Retrieved from <https://www.modernghana.com/news/578249/1/ghanas-education-system-needs-a-dev.html>Campaign Coalition (GNECC)
- Ampratwum, A., Awal, M., & Oduro, F. (2018). Decentralisation and teacher accountability: How the political settlement shapes governance in the education sector at sub-national levels in Ghana. ESID Working Paper No. 102. Manchester, UK: The University of Manchester. Available at www.effective-states.org
- Ampratwum, E., & Awal, M. (2018). Decentralisation and teacher accountability: How the political settlement shapes governance in the education sector at sub- national levels in Ghana. The Ghana Centre for Democratic Development ESID Working Paper No. 102. *Journal of Business & Economics*, 3(102), 1–25
- Anab, B. A. (2018). *Promoting Quality Education Through Effective Teacher Supervision In Public Junior High Schools In The Tamale Metropolis*. (Doctoral dissertation) University of Development Studies.
- Anderson, H. (2016). Problems of Teaching and Learning in Basic Schools-The Case of Ewusa Demonstration Basic School, Ghana. *Advances in Social Sciences Research Journal*. 3. 10.14738/assrj.34.1911.
- Armah, P. H. (2017). *Overview And Challenges of Ghana's Education System: How to Fix to It*. A paper delivered at a Reforming Ghana's Educational System Retreat organized by The Institute of Economics Affairs under the Youth Capacity Building Initiative, held at Birdrock Hotel, Anomabo, Ghana.
- Awortwi, N. (2011). An unbreakable path? A comparative study of decentralization and local government development trajectories in Ghana and Uganda. *International Review of Administrative Sciences*, 77(2), 347–377.
- Ayee, J. R. (2000). *Decentralisation and good governance in Ghana*. Paper prepared for the Canadian High Commission, Accra, Ghana..
- Ayee, J. R. (Ed.). (2001). Deepening Democracy in Ghana: politics of the 2000 elections. Freedom.
- Ayodele, J. B. (2002). The perception of secondary school teachers on the impact of external supervision. *Journal of Educational Foundations and Management*, 2(1), 35–42
- Baba, W. M. (2012). Teacher Motivation and Quality Education Delivery: A Study of Public Basic Schools in Tamale Metropolis in Ghana. pp 7, Faculty of Social Sciences, KNUST.
- Baffour-Awuah, P. (2011). *Supervision of instruction in public primary schools in Ghana: teachers'and headteachers'perspectives*. (Doctoral dissertation) Murdoch University.
- Baginsky, M., Driscoll, J., & Manthorpe, J. (2015). Thinking aloud: decentralisation and safeguarding in English schools. *Journal of Integrated Care*, 23(6), 352–363.

- Banerjee, A., Banerji, R., Duflo, E., Glennerster, R., & Khemani, S. (2006). Can information campaigns spark local participation and improve outcomes?. Policy Research Working Paper No. 3967, Development Research Group, The World Bank, Washington DC.
- Bardhan, P., & Mookherjee, D. (2006). Decentralisation and Accountability in Infrastructure Delivery in Developing Countries. *The Economic Journal*, 116(508), 101–127.
- Barr, T. L., & Reid, J. (2014). Centralized decentralisation for tribal business development. *Journal of Enterprising Communities: People and Places in the Global Economy*, 8(3), 217–232. <https://doi.org/10.1108/JEC-10-2012-0054>
- Beasley, E., & Huillery, E. (2013). *School Resources, Behavioral Responses and School Quality* (No. hal-01073604).
- Bernbaum, M. (2011). *Equip2 Lessons Learned in Education. Decentralisation*. Washington, DC: USAID, EQUIP 2 and FHI 360
- Bjork, C. (2003). Local Responses to decentralization policy in Indonesia. *Comp.Educ. Rev.* 47, 184–216, <http://dx.doi.org/10.1086/376540>.
- Bjorke, C. (2004). Decentralisation in Education, Institutional Culture and Teacher Autonomy in Indonesia. *International Review of Education*, 50(3/4), 245–262.
- Bjork, C. (2006). Introduction. In C. Bjork (Ed.), *Educational decentralization: Asian experiences and conceptual contributions* (pp. 1-7). Dordrecht, Netherlands: Springer. https://doi.org/10.1007/978-1-4020-4358-1_1
- Blimpo, M., & Evans, D. (2011). School-based management and educational outcomes: lessons from a randomized field experiment. Unpublished manuscript.
- Bloom, G. (2007). Classroom Visitations Done Well. *Leadership*, 36(4), 40.
- Bolden, R., Gosling, J., Marturano, A., & Dennison, P. (2003). *A Review of Leadership Theory and Competency Frameworks*. Retrieved from [https:// ore.exeter.ac.uk](https://ore.exeter.ac.uk)
- Borg, W. R., & Gall, M. D. (1983). *Educational Research an Introduction*. New. York: Longman.
- Botchway, K. (2000). Paradox of empowerment: Reflections on a case study from Northern Ghana. *World Development* 33, no. 1: 135–53.
- Bottani, N. (2000). *Autonomy and Decentralisation. Between Hopes and Illusions. A Study of Reforms in Five European Countries*. Paper presented at the Annual Meeting of the American Educational Association, New Orleans, LA.
- Bruns, B., D. Filmer and H. Patrinos. 2011. *Making schools work: New evidence on accountability reforms*. Washington DC: The World Bank Contradiction: where quality data and qualitative findings conflict (Brannen, 2005).
- Busemeyer, M. (2012). *Two decades of decentralization in education governance: Lessons learned and future outlook for local stakeholders*. Presentation delivered at the OECD Conference 'Effective local governance in education', in Warsaw.
- Bush, T., & Heystek, J. (2003). School governance in the new South Africa. *Compare*, 33, (2), 127–38.
- Camelia, S., Vladimir-Aurelian, E., & Cătălin, D. R. (2014). The Impact of Decentralisation on the Romanian School. *Procedia - Social and Behavioral Sciences*, 124, 69–76. <https://doi.org/10.1016/j.sbspro.2014.02.461>
- Cangemi, J. (2009). Analysis of an Adversarial Labor/Management Situation in a Latin American Industrial Setting: A Case Study using Maslow's Hierarchy of Needs. *Organization Development Journal*, 27(1), 37-47. Retrieved September 1, 2009, from ABI/INFORM Global. (Document ID: 1655857271).
- Carnoy, M. & Diana, R. (2002). What does globalization mean for educational change? A comparative approach. *Comparative Education Review*, 46(1), 1-9.
- Carr-Hill, R., Rolleston, C., Schendel, R. & Waddington, H. (2018). The effectiveness of school-based decision making in improving educational outcomes: *Journal of Development Effectiveness*, 10, (1), 61–94. <https://doi.org/10.1080/19439342.2018.1440250>

- Cha, S. H. (2016). Decentralisation in educational governance and its challenges in Korea: Focused on policy conflicts between central and local government in education. *Asia Pacific Educ. Rev.* 17, 479–487 (2016). <https://doi.org/10.1007/s12564-016-9448-3>
- Channa, A. (2015). Decentralisation and the Quality of Education. Background paper prepared for the Education for All Global Monitoring Report 2015
- Channa, A. (2016). Popularity of the decentralisation reform and its effects on the quality of education. *Prospects*, 46(1), 131–147. <https://doi.org/10.1007/s11125-016-9380-7>
- Chapman, J. D. (1988). Decentralisation, devolution and the teacher: participation by teachers in the decision making of schools. *The Journal of Educational Administration*, 26(1), 39–72.
- Chua, W. F. (1986). Radical Developments in Accounting Thought. *The Accounting Review*, LXI(4), 601–632.
- Conyers, D. (2007). Decentralisation and service delivery: Lessons from sub-Saharan Africa. *IDS Bulletin*, 38(1), 18–32. <https://doi.org/10.1111/j.1759-5436.2007.tb00334.x>
- Crawford, G. (2004). Democratic decentralization in Ghana: issues and prospects. POLIS working paper, 9, 1–13.
- Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed method approaches*. Thousand Oaks, California: Sage Publications.
- Crook, R. C. (2003). Decentralisation and poverty reduction in Africa: the politics of local-central relations. Public Administration and Development: *The International Journal of Management Research and Practice*, 23(1), 77–88.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297–334.
- De Grauwe, A. (2005). School-based management (SBM): does it improve quality? Background paper for EFA Global Monitoring Report 2005.
- Derqui, M. J. (2010). Aspectos civiles de la orden de protección y competencia civil Del Juzgado de Violencia sobre la Mujer. In *III Congreso del Observatorio contra la Violencia Doméstica y de Género. Madrid*.
- Dillon, E. (2011). The road to autonomy: Can schools, district, and central offices find their way. *Education Sector*.
- Dufour, R., & Eaker, R. (1998). Professional learning communities at work: Best practices for enhancing student achievement. Alexandria, CA: Association for Supervision and Curriculum Development.
- Dyer, C. (2005). Decentralisation to improve teacher quality? District Institutes of Education and Training in India. *Compare*, 35(2), 139–152. <https://doi.org/10.1080/03057920500129791>
- Dyer, C., & Rose, P. (2005). Decentralisation for educational development? An editorial introduction. *Compare*, 35(2), 105–113. <https://doi.org/10.1080/03057920500129809>
- Earl, L. Watson, N., Levin, B., Leithwood, K. Fullan, M., & Torrance, N. (2003).
- Watching and learning 3: Final report of the OISE/UT evaluation of the implementation of the National Literacy and Numeracy Strategies. Prepared for the Department for Education and Skills, England. Toronto: OISE/University of Toronto. Retrieved from www.standards.dfes.gov.uk/literacy/publications Education Act, 2008 (Act 778), Section 9-15. Retrieved from <http://www.ilo.org/dyn/natlex/docs/MONOGRAPH/83622/92463/F2061259086/GHA83622.pdf>
- Elacqua, G., Munevar, I., Sanchez, F., & Santos, H. (2021). The impact of decentralised decision-making on student outcomes and teacher quality: Evidence from Colombia. *World Development*, 141. <https://doi.org/10.1016/j.worlddev.2020.105378>
- Era, T. M., Missionaries, C., & Richelieu, J. Von. (1980). *A brief history of the Ghanaian educational system*.
- Essuman, A. (2019). Improving education delivery through community – school partnership: Is the “social contract” being weakened? – A study of two rural schools. *International Journal of Educational Management*, 33(6), 1336–1351. <https://doi.org/10.1108/IJEM-06-2018-0175>
- Essuman A. & Akyeampong, K. (2011). Decentralisation policy and practice in Ghana: the promise and reality of community participation in education in rural communities. *Journal of Education Policy*, 26 (4), 513–527, DOI: 10.1080/02680939.2011.554999

European Agency for Special Needs and Inclusive Education (2016). *Financing of Inclusive Education: Mapping Country Systems for Inclusive Education*. (S. Ebersold, ed.). Odense, Denmark

Fadipe, J. O. (2003). Quality control in education: the teacher factor. In T. E. Ajayi and J. Fadipe (eds) *Skills improvement program for effective performance of teachers in Nigerian schools*. A publication of National Institute for Educational Planning and Administration (NIEPA), Ondo. 128—143.

Falleti, T. G. (2005). A sequential theory of decentralization: Latin American cases in comparative perspective. *American Political Science Review*, 99(3), 327–346.

Fatile, J. O., & Ejalonibu, G. L. (2015). Decentralisation and local government autonomy: Quest for quality service delivery in Nigeria. *Journal of Economics, Management and Trade*, 1-21.

Fiske, E. B. (1996). Decentralisation of Education: Politics and Consensus. Washington, DC. Florestal & Cooper, (1997) in A. M., Salisu (2017). *Mobilizing local government revenue towards financing local level development: The case of Wa Municipal Assembly* (Doctoral dissertation).

Gershberg, A. I. & Meade, B. (2005). 'Parental Contributions, School-Level Finances and Decentralisation: An Analysis of Nicaraguan Autonomous School Budgets.' *Comparative Education*, 41 (3): 291-308.

Glickman, C., Gordon, P. & Ross, M. (1998). *Supervision of instruction. A developmental Approach* (4th ed.), Boston: USA: Allyn and Bacon Press.

Glickman, C. D., Gordon, S. P., & Ross-Gordon, J. M. (2001). *Supervision and instructional leadership: A developmental approach*. Allyn & Bacon/Longman Publishing, a Pearson Education Company, 1760 Gould Street, Needham Heights, MA 02494. Web site: <http://www.abacon.com>.

Grant, C. & Singh, H. (2009). Passing the buck: This is not teacher leadership. *Perspectives in Education*, 27(3):289-301.

Greene, J., Caracelli, V., & Graham, W. (2013). Toward a Conceptual Framework for Mixed-Methods Evaluation Designs. *Educational Evaluation and Policy Analysis*, 11:255-274.

Gronn, P. (2003). *The new work of educational leaders: Changing leadership practice in an era of school reform*. London: Paul Chapman Publishing.

Gronn, P. (2010). Leadership: Its genealogy, configuration and trajectory. *Journal of Educational Administration and History*, 42(4), 405-435.

Guerrero, G., Leon, J., Zapata, M., Sugimaru, C., & Cueto, S. (2012). *What works to improve teacher attendance in developing countries? A systematic review*. London: EPPICentre, Social Science Research Unit, Institute of Education, University of London. Available at: <http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=3377>.

Gunning, J. W. (2018). Chapter 5: Decentralisation And Development In Tanzania. *Economic Development & Institutions*.

Gunnarsson, V., Orazem, P. F., Sánchez, M., & Verdisco, A. (2004). Does school decentralisation raise student outcomes? Theory and evidence on the roles of school autonomy and community participation. *Working Papers Series*, 04005, 35.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2009). *Multivariate data analysis (7th Ed.)*. Upper Saddle River, NJ: Pearson Prentice Hall.

Hallinger, P., & Heck, R. H. (2010). Collaborative leadership and school improvement: Understanding the impact on school capacity and student learning. *School leadership and management*, 30(2), 95-110.

Hanushek, E. A., Link, S., & Woessmann, L. (2013). Does school autonomy make sense everywhere? Panel estimates from PISA. *Journal of Development Economics*, 104, 212-232.

Harriet, T., Anin, E. K. & Asuo, Y. K. (2013). The level of stakeholders' participation in the district education strategic planning towards quality basic education: The case of Salaga Town Council of Ghana. *International Journal of Humanities and Social Science*, 3(14), 95-102.

Harris, A. (2004). Distributed Leadership and School Improvement. *Educational Management Administration & Leadership*, 32 (1) 11-24.

- Harris, A. & Muijs, D. (2005). *Improving schools through teacher leadership*. Maidenhead: Open University Press.
- Haug, B. (2009). *Educational Decentralisation and Student Achievement: A Comparative Study Utilizing Data from PISA to Investigate a Potential Relationship between School Autonomy and Student Performance in Australia, Canada, Finland, Norway and Sweden*. (Phd Thesis), University of Oslo.
- Held, D. (2006). *Models of Democracy*. Policy Press. 65 Bridge Street. UK.
- Henaku, C. B., & Pobbi, M. A. (2017). *Measuring Teacher Classroom Management Skills: A Comparative Analysis of Distance Trained and Conventional Trained Teachers*. *Journal of Education and Practice*, 8 (10), 33-41.
- Herbst, M. & Wojciuk, A. (2014). Inequity in a decentralised education system – evidence from Poland. *Edukacja*, 6 (131), 5–22
- Heredia-Ortiz, E. (2007). *The Impact of Education Decentralisation on Education Output: A Cross-Country Study*. (Dissertation), Georgia State University.
- Hersey, P., Blanchard, K. H., & Johnson, D. E. (2001). *Management of organizational behavior: Leading human resources* (8th Eds.). Upper Saddle River, NJ: Prentice Hall.
- Hildyard, N., Pandurang, H., Wolvekamp, P., & Somasekhare, R. (2001). Pluralism, participation and power: joint forest management in India. *Participation: the new tyranny?* 56-71.
- Ikoya, P. O. (2007). Decentralisation of educational development reforms in Nigeria : a comparative perspective. <https://doi.org/10.1108/09578230710732961>
- Ikoya, P. O. (2008). Centralization and decentralisation of schools' physical facilities management in Nigeria. *Journal of Educational Administration*, 46(5), 630–649.
- Javed, B. S., Perry, G. E., & Dillinger, W. R. (1999). *Beyond the Center: Decentralising the State*. Washington, D.C.: World Bank.
- Johansson, T. (2006). *Teaching material in the EFL classroom: teachers' and students' perspectives*. Växjö University
- Johnson, B., & Christensen, L. (2012). *Educational research: Quantitative, qualitative, and mixed approaches*. Los Angeles, CA: SAGE Publication.
- Karlsen, J., & Larrea, M. (2012). Emergence of shared leadership in the Basque Country. In *Leadership and change in sustainable regional development* (pp. 228-249). Routledge.
- King, E., & Ozler, B. (2000). What's decentralization got to do with learning? Endogenous school quality and student performance in Nicaragua. Development Research Group, World Bank.
- Khongmalai, O., & Distanont, A. (2017). Corporate governance model in Thai state-owned enterprises: structural equation modelling approach. *Corporate Governance Model in Thai State-Owned Enterprises: Structural Equation Modelling Approach*, 17(4), 613–628. <https://doi.org/10.1108/CG-01-2016-0021>
- Klein, J., & Shimoni-hershkoviz, L. (2016). The contribution of privatization and competition in the education system to the development of an informal management culture in schools: A case study in Israel. *International Journal of Educational Management*, 30(4), 552–570. <https://doi.org/10.1108/IJEM-08-2014-0113>
- Kor, J. A. M. (2018). *Instructional Leadership Qualities and Its Impact on Academic Performance of Students*. (Doctoral Thesis) Open University Malaysia
- Kovacs, G., & Spens, K. M. (2005). Abductive reasoning in logistics. *International Journal of Physical Distribution & Logistics Management*, 35(2), 132–144. <https://doi.org/10.1108/09600030510590318>
- Kuhon, R. (2020). Decentralisation and Education for All in Indonesia. *Polyglot: Journal Ilmiah*, 16, (1), 14 - 33. DOI: [dx.doi.org/10.19166/pji.v16i1.1996](https://doi.org/10.19166/pji.v16i1.1996)
- Laing, D., Rivkin, S. G., Schiman, J. C., & Ward, J. (2016). *Decentralised governance and the quality of school leadership* (No. w22061). National Bureau of Economic Research.
- Lanka, S., & Gowing, R. (2013). Evaluating the Impact of Decentralisation on Educational Outcomes: The Peruvian Case. *Working paper Series*. 44(13).

Lauglo, J. (1995). Forms of Decentralisation and their Implications for Education. *Comparative Education*, 31(1), <http://dx.doi.org/10.1080/03050069529182>

Leer, J. (2016). After the Big Bang: Estimating the effects of decentralization on educational outcomes in Indonesia through a difference-in-differences analysis. *International Journal of Educational Development*, 49, 80-90.

Leithwood, K., Day, C., Sammons, P., Harris, A. & Hopkins, D. (2006). Successful school leadership: What it is and how it influences pupil learning. Nottingham, UK: National College for School Leadership and Department for Education and Skills.

Leithwood K., Jantzi, D., & Steinbach, R. (2003). Fostering teacher leadership. In N Bennett, M Crawford & M Cartwright (eds.). *Effective educational leadership*. London: The Open University Press in association with Paul Chapman Publishing.

Leithwood, K., & Jantzi, D. (2008). Linking leadership to student learning: The contributions of leader efficacy. *Educational administration quarterly*, 44(4), 496-528.

Leithwood, K., & Riehl, C. (2005). What we know about successful school leadership. In W. Firestone, and C. Riehl (eds). *A new agenda: directions for research on educational leadership*. New York: Teachers College Press.

Lewis, S., & Naidoo, J. (2004). Whose theory of participation? School governance policy and practice in South Africa. *Current Issues in Comparative Education*, 6, (2) 100-12.

Litvack, J. (2017). Education and decentralisation. Retrieved December 6, 2017, from <https://www.ciesin.columbia.edu/decentralisation/English/Issues/Education.html>

Lua, M., Loyalka, P., Shi, Y., Chang, F., Liu, C., & Rozelle, S. (2019). The impact of teacher professional development programs on student achievement in rural China: evidence from Shaanxi Province. *Journal of Development Effectiveness*, 11(2), 105-131.

Lynn, D., Harber, C., & Dzimadzi, C. (2003). Educational Decentralisation in Malawi: A study of process. Compare: *A Journal of Comparative and International Education*, 33(2), 139-154. <https://doi.org/10.1080/0305792032000070075>

Madeira, R. (2007, October). The effects of decentralization on schooling: Evidence from the Sao Paulo State's education reform. In *Artigo apresentado na Northeast Universities Development Consortium (NEUDC) Conference, Cambridge, Massachusetts* (pp. 26-27).

Makenji, N. P. (2017). *Decentralisation of educational management through school board: a case of community secondary schools in same district council, Kilimanjari region*. (Doctoral dissertation), The Univesity of Dodoma.

Mankoe, J., & Maynes, B. (1994). Decentralisation of educational decision-making in Ghana. *International Journal of Educational Development*, (14)1, 23-33, [https://doi.org/10.1016/0738-0593\(94\)90005-1](https://doi.org/10.1016/0738-0593(94)90005-1).

Esia-Donkoh, K. & Baffoe, S. (2018). Instructional Supervisory Practices of Headteachers and Teacher Motivation in Public Basic Schools in Anomabo Educational Circuit. *Journal of Education and e-learning Research*, 5(1), 43-50.

Mawhood, P. (1987). Decentralisation and the Third World in the 1980s. *Planning and Administration*, 14(1), 10-22.

Mayer D. P., Mullens, J. E., Moore, M. T., Ralph, J. (2000). Statistical Analysis Report; Monitoring School Quality: An Indicators Report. National Center for Education Statistics. pp i-ii

Mc Leod, S. A. (2007). *Maslow's Hierarchy of needs-simply psychology*. Retrieved from <http://www.simplypsychology.org/maslow.htm1slf2>

Mehta, T. G., Atkins, M. S., & Frazier, S. L. (2013). The organizational health of urban elementary schools: School health and teacher functioning. *School Mental Health*, 5(3), 144-154.

Ministry of Education (2014). Ghana Education Decentralisation Project (GEDP): Operational Framework for National Teaching Council (NTC) (PDF). *Ministry of Education. February 2012*. Retrieved 20 July 2014.

Ministry of Education (MOE) (2012). Education Strategic Plan (2010-2020) Volume 1 Policies, Strategies, Delivery, Finance. Accra-Ghana: MOE

- Mok, K. H. (2003). Decentralisation and marketization of education in A case study of the. *Journal of Educational Administration*, 41(4), 348–366. <https://doi.org/10.1108/09578230310481621>
- Mok, K. H., & Han, X. (2016). The rise of transnational higher education and changing educational governance in China. *International Journal of Comparative Education and Development*, 18(1), 19–39. <https://doi.org/10.1108/IJCED-10-2015-0007>
- Mollah, A. H. (2007). Administrative decentralisation in Bangladesh: Theory and practice. *International Journal of Organisation Theory and Behaviour*, 10(1), 1–34.
- Mohamed S (2016). The Principals' Supervisory Roles for Quality Education and Effective School Administration of Basic Education Schools in Nigeria. 18th 16th Proceedings of ISER International Conference, Dubai, UAE, January 2016.
- Murnane, R., Willett, J., & Cárdenas, S. (2006). Ha contribuido el Programa Escuelas De Calidad (PEC) a mejorar la educación Pública en México ? Aprender más y mejor. Políticas, programas y oportunidades de aprendizaje en educación básica en México.
- Muta, H. (2000). Deregulation and decentralisation of education in Japan. *Journal of Educational Administration*, 38(5), 455–467
- Muttaqin, T., Wittek, R., Heyse, L., & van Duijn, M. (2020). The achievement gap in Indonesia? Organizational and ideological differences between private Islamic schools. *School Effectiveness and School Improvement*, 31(2), 212–242.
- Muttaqin, T., Wittek, R., Heyse, L., & Duijn, M. Van. (2015). The Impact of Decentralisation on Educational Attainment in Indonesia School Effectiveness and School Improvement The achievement gap in Indonesia ? Organizational and ideological differences between private Islamic schools. In *School Effectiveness and School Improvement*. Taylor & Francis. <https://doi.org/10.1080/09243453.2019.1644352>
- Naicker, S. R., & Mestry, R. (2013). Teachers' reflections on distributive leadership in public primary schools in Soweto. *South African Journal of Education*, 33(2), 115
- Naidoo, J. P. (2002). Education Decentralisation in Sub-Saharan Africa--Espoused Theories and Theories in Use. Eric
- Namukas, I. K., & Buye, R. (2009). Decentralisation and education in Africa: The case of Uganda. In *Decentralisation, school-based management, and quality* (pp. 175-194). Springer, Dordrecht.
- Nkrumah, S. A. (2000). Decentralisation for good governance and development: The Ghanaian experience. *Regional Development Dialogue*, 21, 53-67.
- Nolan, J., & Hoover, L. A. (2011). *Teacher supervision and evaluation*. John Wiley and Sons.
- Nudzor, H. P. (2014). An Analytical Review of Education Policy-Making and Implementation Processes Within the Context of "Decentralised System of Administration" in Ghana. *SAGE Open*. 4. 10.1177/2158244014530885.
- Obaoye, O. S. (2016). *Impact of Decentralisation Reforms on Public Service Delivery at the Local Self-Government* (Doctoral dissertation, Šiaulių universitetas).
- Okech, C. (2004). Headteachers as Managers of the Learning Institutions. In M. P.,
- Gitau (2016). Influence of Headteachers' Instructional Supervision Practices on Pupils'academic Performance in Public Primary Schools in Thika West Sub-County, Kenya. *Master Thesis, University of Nairobi*.
- Okwiri, R. (2006). *The Role of the Headteacher in School Management*. Med Thesis. Kenyatta University: Unpublished.
- Oliver, S., Dickson, K., & Newman, M. (2012). Getting started with a review. Sage Publications.
- Osaigbovo, J. (2013). Decentralisation: A panacea for functional education and national development in Nigeria. *Journal of Research in National Development*, 11(1), 264-269.
- Osei-Fofie, D. (1998). *Management of Basic Education in the Context of Ghana's Decentralisation Policy*. (Master's Thesis) Kwame Nkrumah University of Science and Technology.

Osei-Owusu, B. & Sam, F. K. (2012). Assessing the role of School Management Committees (SMCs) in improving quality teaching and learning in Ashanti Mampong municipal basic schools. *Journal of Emerging Trends in Educational Research and Policy Studies*, 3(5), 611-615. <https://hdl.handle.net/10520/EJC127700>

Owusu, L., Owusu B. K, Oppong M. B., & Dogoli W. Y. (2005): Local governance and poverty alleviation in Africa: lessons of experience. The case of Ghana. Tunis, Tunisia.

Petrosino, A., Morgan, C., Fronius, T.A., Tanner-Smith, E.E., & Boruch, R.F. (2012). *Interventions in developing nations for improving primary and secondary school enrollment of children: A systematic review*. Campbell Systematic Reviews 2012: 19. Available at: <http://www.campbellcollaboration.org/lib/project/123/>.

Pherali, T., Smith, A., & Vaux, T. (2011). A Political Economy Analysis of Education in Nepal. Available at [https://pure.ulster.ac.uk/ws/files/11463127/Pherali_Smith_Vaux_\(2011\)_AugFull1FINAL-Pradhan,M.,D.Suryadarma,A.Beatty,M.Wong,A.Alishjabana,A.Gaduh,&R.](https://pure.ulster.ac.uk/ws/files/11463127/Pherali_Smith_Vaux_(2011)_AugFull1FINAL-Pradhan,M.,D.Suryadarma,A.Beatty,M.Wong,A.Alishjabana,A.Gaduh,&R.)

Prama Artha (2011). Improving Educational Quality through Enhancing Community Participation: Results from a Randomized Field Experiment in Indonesia. World Bank Policy Research Working Paper 5795. Washington, DC: World Bank.

Prinsen, G., & Titeca, K. (2008). Uganda's decentralised primary education: musical chairs and inverted elite capture in School Management Committees. *Public Administration and Development*, 28(2), 149-164.

Rado, P. (2010). Governing Decentralised Education Systems. Systemic Change in South Eastern Europe. Budapest: Local Government and Public Service Reform Initiative, Open Society Foundations

Rahman, M. S. (1996). Decentralisation Practices in Bangladesh: Problems and Potentials. In Rajshahi University Studies (pp. 65–91). Dhaka: Rajshahi University Press.

Ritchie, J., & Lewis, J. (2003). Qualitative Research Practice: A Guide for Social Science Students and Researchers. London: Sage Publications. Chicago Rocha, A., & Sharma, B. (2008). Joint evaluation of citizens' voice and accountability. *Synthesis Report*. DFID, London.

Rondinelli, D. A., & Kasarda, J. D. (1993). Privatization of urban services and infrastructure in developing countries: an assessment of experience.

Rose, P. (2003). Community participation in school policy and practice in Malawi: Balancing local knowledge, national policies and international priorities. *Compare*, 33, (1) 47–64.

Rose, P. (2014). Teaching and Learning: Achieving Quality for All. EFA Global Monitoring Report 2013/4. Paris: UNESCO Publishing.

Sakyi, E. K. (2008). Implementing decentralised management in Ghana The experience of the Sekyere West District. *Leadership in Health Services*, 21(4), 307–319. <https://doi.org/10.1108/17511870810910100>

Sakyi, E. K., Awoonor-Williams, J. K., & Adzei, F. A. (2011). Barriers to implementing health sector administrative decentralisation in Ghana: A study of the Nkwanta district health. *Journal of Health Organisation and Management*, 25(4), 400–419. <https://doi.org/10.1108/14777261111155038>

Sana, M. C. (2011). Decentralisation and the Politics of Participation: A Case of Project Planning and Implementation in Asutifi District. (Masters' Thesis) Kwame Nkrumah University of Science and Technology.

Santibañez, L., R. Abreu-Lastra, & O'Donoghue, J. (2014). School Based Management Effects: Resources or Governance Change? Evidence from Mexico. *Economics of Education Review*, 39, 97–109. doi:10.1016/j.econedurev.2013.11.008.

Sawada, Y. & Ragatz, A. (2005). Decentralisation of education, teacher behavior, and outcomes. In *Incentives to Improve Teaching*, ed. E. Vegas. Washington DC: World Bank.

Sayed, Y. & Soudien, C. (2005). Decentralisation and the Construction of Inclusion Education Policy in South Africa. *Compare: A Journal of Comparative and International Education*, 35,(2), 115-125.

Scott-Herridge, R. (2002). *Decentralisation-Does it Deliver Good Governance and Improved Services? The Experience of Uganda*. African Studies Centre, Coventry University.

- Şen, D., & Bandyopadhyay, A. (2010). Educational decentralisation as part of public administration reform in Turkey. *Procedia - Social and Behavioral Sciences*, 2(2), 269–276. <https://doi.org/10.1016/j.sbspro.2010.03.009>
- Sergiovanni, T. J. (2005). *Strengthening the heartbeat: Leading and learning together in schools*. San Francisco, CA: Jossey-Bass.
- Sikayile, A. (2011). *Educational Decentralisation in Zambia an analysis of policy and practice. A Study of Chongwe and Solwezi District Education Boards*. (Master Thesis) University of OSLO.
- Simonsen, B., Fairbanks, S., Briesch, A., Myers, D., & Sugai, G. (2008). Evidence-based practices in classroom management: Considerations for research to practice. *Education and treatment of children*, 351-380. <https://doi.org/10.1353/etc.0.0007>
- Shah, D. (2009). Monitoring the Quality of Secondary Education in the Context of Decentralisation in Pakistan Review of Related Literature. *Bulletin of Education and Research*, 31(1), 1–25.
- Shabbir, S. (2017). Decentralisation Education System and Its Effects on Teachers Performance. *Journal of Investment and Management*, 6(3), 75. <https://doi.org/10.11648/j.jim.20170603.11>
- Sheppard, B., & Brown, J. (2006, October). A CEO's five-year journey: Translating theory into practice. Paper presented at Commonwealth Council for Educational Administration and Management, Nicosia, Cyprus.
- Skoufias, E., & J. Shapiro (2006). Evaluating the Impact of Mexico's Quality Schools Program: The Pitfalls of Using Non-Experimental Data. Impact Evaluation Series No. 8. Washington, DC: World Bank.
- Snilstveit, B., Stevenson, J., Phillips, D., Vojtkova, M., Gallagher, E., Schmidt, T., Jobse, H., Geelen, M., Pastorello, M. & Eyers, J. (2015). Interventions for Improving Learning Outcomes and Access to Education in Low- and Middle-Income Countries: A Systematic Review, 3ie Systematic Review 24. London: International Initiative for Impact Evaluation (3ie).
- Spillane, J. P. (2009). Managing to lead: Reframing school leadership and management. *Phi Delta Kappan*, 91(3)70-73.
- Stubbs, S. (2008). *Inclusive Education. Where there are few resources*. Oslo: The Atlas Alliance
- Tamukong, J. A. (2004). Towards better management of public education in Cameroon: the case for decentralisation. *Africa Development*, 29(2), 134-157.
- The Decentralisation Thematic Team (n.d.). *Education and Decentralisation*. <https://www.ciesin.columbia.edu/decentralisation/English/Issues/Education.html> (Accessed 14 September 2021)
- Tashakkori, A., & Teddlie, C. (Eds.). (2010). *Sage handbook of mixed methods in social & behavioral research*. Sage. (pp. 385-422)
- Toh, Y., Hung, W. L. D., Chua, P. M. H., He, S., & Jamaludin, A. (2016). Pedagogical reforms within a centralised-decentralised system: A Singapore's perspective to diffuse 21st century learning innovations. *International Journal of Educational Management*, 30(7), 1247–1267. <https://doi.org/10.1108/IJEM-10-2015-0147>
- Saunders, M., Lewis, P., & Thornhill, A., (2007). *Research Methods for Business Students*. Essex: Pearson Education Limited.
- Scott-Heridge, R. (2002). Decentralisation: Does it deliver good governance and improved services? The experience of Uganda. Covenant University Otta: African Studies Centre; 2002.
- UNESCO (2004). EFA Global Monitoring Report: The Quality Imperative. Paris: EFA Global Monitoring Report Team.
- Unterhalter, E. (2012). Poverty, education, gender and the Millennium Development Goals: Reflections on boundaries and intersectionality. *Theory and Research in Education*, 10(3), 253-274.
- Urbanovič, J., & Patapas, A. (2012). Decentralisation Reforms of Education Management: Theoretical and Practical Issues. *Viešoji Politika ir Administravimas/Public Policy and Administration*, 11 (4), 659–671

- Weidman, J. C., & DePietro-Jurand, R. (2011). *Equip State-of-the-Art Knowledge in Education. Decentralisation. A Guide to Project Design Based on a Comprehensive Literature and Project Review*. Washington, DC: USAID, EQUIP 2 and FHI 360
- Winkler, D. (2003). *Decentralisation and education*, In Guthrie, J. W, *Encyclopedia of education* (Ed 2nd), (pp 542- 546) New York: Thomson Gale.
- World Bank (2004). *Fiscal Decentralisation to Rural Governments in India*. Report No. 26554-IN.
- World Development Report (2004). *Making Services Work for Poor People*. Washington DC: World Bank
- World Bank. (2007). *What is School Based management?*
http://siteresources.worldbank.org/EDUCATION/Resources/278200-1099079877269/547664-1099079934475/547667-1145313948551/what_is_SBM.pdf
- World Bank (2008). *Decentralisation in Client Countries: An Evaluation of the World Bank Support, 1990-2007*. Washington DC: World Bank Publications.
- World Bank (2010). *Education in Ghana: Improving Equity, Efficiency and Accountability of Education Service Delivery*. Washington, DC: World Bank.
- Yeom, M., Acedo, C., Utomo, E. (2002). The reform of secondary education in Indonesia during the 1990s: basic education expansion and quality improvement through curriculum decentralization. *Asia Pac. Educ. Rev.* 3, 56–68.
- Yin, R. K. (2003). *Case study research: design and methods*, Applied social research methods series. Thousand Oaks, CA: Sage Publications, Inc. Afacan, Y., & Erbug, C. (2009). An Interdisciplinary Heuristic Evaluation Method for Universal Building Design. *Journal of Applied Ergonomics*, 40, 731–744.
- Zhang, L. F., Lai, X., Pang, H. Y., & Rozelle, S. (2013). The Impact of Teacher Training on Teacher and Student Outcomes: Evidence from a Randomized Experiment in Beijing Migrant Schools. *Journal of Development Effectiveness*, 5(3), 339–358. doi:10.1080/19439342.2013.807862.
- Zhao, Y., & Quiu, W. (2012). Policy changes and educational reforms in China: decentralisation and marketization. *On the Horizon*, 20(4), 313–323.