UNIJERPS
Unizik Journal of Educational Research and Policy Studies VOL.20 (1);
July-December, 2025 https://unijerps.org
2023 Impact Factor: **6.834;** 2022 ***Impact Factor***: 5.156; ***2021 Impact Factor: 5.641;***
2020 Impact Factor: 5.355. *Indexing and Impact Factor URL: http://sjifactor.com/passport.php?id=21363*

PRINCIPAL FINANCIAL MANAGEMENT INDICES AND TEACHERS' PROFESSIONAL DEVELOPMENT AS DETERMINANTS OF SCHOOL EFFECTIVENESS IN PUBLIC SECONDARY SCHOOLS IN OYO STATE, NIGERIA

Owoshakin Olushola Joshua & Ileuma Senimetu Esther

Department of Social Science Education
Faculty of Education
Lead City University, Ibadan, Oyo State

owoshola3@gmail.com
O7038096051

ABSTRACT

Effectiveness refers to the degree to which something or someone is successful in producing a desired result or objective. School effectiveness, therefore means, 'the school accomplishes its objectives. Fund management practices of principals in Oyo State have been called to question because of the deplorable states of some secondary schools. There are speculations of financial mismanagement which might be due to lack of requisite training in financial management. The term "professional development" suggests a process which enables teachers become more professional. t. Seminars, workshop, refresher courses, ICT training and conferences are some of Professional development programmes discussed. Adult Learning Theory which supposes that adults learn differently from children was examined and its principles in relation to professional development and school effectiveness were considered. Two research questions were asked and two hypotheses formulated. Descriptive research design was adopted for this study. The population comprised all principals and teachers in the 324 public secondary schools in Oyo state. Multi stage sampling procedure was employed and simple random technique used to select 68 principals and 680 teachers across the three senatorial districts of Oyo state. Two research instruments were designed titled "Principal Financial Management Questionnaire" (PFMQ) and "Teachers Professional Development Questionnaire" (TPDQ) to collect data for the study resulted. Data collected were analyzed using descriptive statistics involving frequency counts, percentages and means; and inferential statistics using ANOVA. Findings showed that the levels of school effectiveness and teachers' professional development are presently low. It also showed that there is significant joint influence of principals' management indices and teachers' professional development on school effectiveness ($F = 23.256$; $P < 0.05$). It further showed a significant relative influence of the variables. Three recommendations were made for policy makers to consider.

Keywords: School, Effectiveness, Principal, Teacher, Professional development

Introduction

In a world of constant change, dynamism and competition, whatever gives an individual, group or organisation a competitive advantage or cutting edge is important to be explored. One of such is effectiveness, which is the degree to which something or someone is successful in producing a desired result or objectives. The concept 'effectiveness' refers to an organisation accomplishing its specific objectives. School effectiveness, therefore means, 'the school accomplishes its objectives'.

School effectiveness has been interpreted differently from various schools of thought; this has led to a global debate around the concept. According to a study, school effectiveness has two distinctive aims: firstly, to identify factors that are characteristic of effective schools, and secondly, to identify differences between education outcomes in these schools (Javornik& Mirazchiyski, 2023). The choice and use of outcome measures have been open to debate in many areas of education research. One of the touchstones of effective school is the impact on learners' education outcomes (i.e., test or examination results obtained during formal assessment). In this regard, an effective school was described as "a school in which students, progress further than might be expected". Researchers into school effectiveness continuously aim at clarifying the dilemma with regards to learners' education outcomes. A long-standing problem in this regard has been to find ways to measure learners' progress or achievement that identifies the school's contribution separately from other factors such as learners' ability, background and socio-economic environment and so on.

The call for schools to be more accountable has, in many cases led to school effectiveness being judged on academic results, while other contributing factors are ignored. Botha, (2010) noted that as a result, academic outcomes, usually measured by test and or examination results, have continued to dominate, while other outcome measures have been neglected or used to a lesser extent. School effectiveness could also indicate how well the school is managed by the principal and how well parents and the communities are involved. Furthermore, School effectiveness could also be examined or assessed from the standpoint of how it is impacted by teachers and by extension, Teachers' professional development programmes (Gidari, & Kakana, 2021).

For the purpose of this paper, the term 'School effectiveness' is restricted to Instructional and administrative effectiveness. Further to the foregoing, it appears that school effectiveness is closely tied to the ability of school principals to effectively manage financial resources and proffer teacher professional development, and further tied to qualitative teaching which in-turn is premised on how well or regularly teachers' professional development is proffered.

In Oyo State, it appears that, the principals' incompetence to manage funds appropriately for school effectiveness, corruption and mediocrity of personnel pervaded many revenue generating activities. Therefore, for secondary schools to succeed there is a need for proper financial

management skills on the part of the school principals (Amadi C.& Dagogo J.,2018).

Financial management connotes the careful allocation and utilization of scarce funds by financial managers to minimise waste and maximise accountability. It deals with sourcing of funds, efficient use and minimisation of costs or losses for the greater profitability of a business {Muneer et al, 2017). From the above definitions, principal financial management indices can be described as the required skills of a secondary school principal to procure, expend and give accurate accounts of funds provided for the implementation of educational programmes in the schools. It appears that funds allocated to the education sector are not well managed. For instance, experience showed that managers charged with the responsibility of utilising the money allocated to education sector appear to fall short of their expectations (Ojeleye J.A.,2018). It was lamented by Nwaokugha D.& Ezeugwu M.C.(2017) that as government and good spirited individuals try to build up the education sector, some greedy individuals work hard to pull these efforts down through financial fraud.

To achieve the laudable objectives of education, there is a need for well trained and dedicated teachers to implement the curriculum and assure quality service delivery. It is not just enough to recruit teachers for schools but to provide continuous in-service programmes or developmental programmes for teachers to update their knowledge, skills and competence in order for them to function effectively and efficiently. Teachers' professional development is planned organisational activities aimed at improving and increasing teachers' skills, knowledge, concept, attitudes and behaviour to enable them meet the demands of the teaching job. It focuses on improving the conceptual and intellectual abilities needed to do a better job. It was stated that teachers' development programmes are associated with the general improvement of teachers in terms of behaviour, attitudes, skills, knowledge, and perception and in the performance of their duties.

Ghenghesh & Abdelmageed (2018) maintained that the immediate aim of staff development is to improve the performance of those with teaching and management responsibilities, while the ultimate aim is the improvement of teaching and learning processes. Thus, teachers in basic educational institutions should be encouraged to attend training programmes for capacity building and development. These can be achieved by exposing them to in-service training, such as induction programme, Information and Communication Technologies (ICT) training, workshops, conferences, seminars and refresher courses, particularly for non-professional teachers employed to teach in basic schools.

Statement of the Problem

The issue of school effectiveness has generated serious concern among stakeholder in education in Oyo state. Studies have associated problem of ineffectiveness to lack or inadequacy of educational facilities among other factors which are linked to financial management in schools. It has been observed that most principals are highly educated graduates but with limited financial

management skills. It appears school effectiveness is closely tied to the effectiveness in management of school funds. Also, professional developmental programmes update teachers' knowledge, skills and competence in order for them to function effectively. Teachers in Oyo state appear not to have enjoyed these programmes adequately or sufficiently hence unable to deliver effectively. To find solutions to problems of secondary school effectiveness, series of studies have been carried out, but it appears very few studies have been carried out to investigate the influence of the duo of principals financial management indices and teachers development on school effectiveness in Oyo State, hence the need for this study.

Concept of Teachers Development

In the field of education the terms; professional development, staff development, teachers development and INSET, that is in-service training, have been used interchangeably and have been defined in a number of ways. It is believed that staff training programmes are conscious institutional efforts, particularly in relation to teaching, in to improve the capability of teachers to enable them perform their roles effectively. INSET provides the necessary oxygen for teachers in order to survive as educated and trained professionals (Omar, 2014).

It is believed that staff-development programmes provide the means for teachers to experience continuing education as part of a team of professionals. According to AbdulRab (2023), the term "professional development" suggests a process which enables teachers become more professional. It was maintained that the term implies a long training, involves theory as a background to practice, has its own code of behaviour and has a high degree of autonomy.

Types of Teachers' professional development programmes

The following teachers' professional development programmes are considered as follows;

Seminar for Teachers

A seminar is a form of academic instruction, either at an academic institution or offered by a commercial or professional organization. It has the function of bringing together small groups for recurring meetings, focusing each time on some particular subject, in which everyone present is requested to participate. This is often accomplished through an ongoing Socratic dialogue with a seminar leader or instructor, or through a more formal presentation of research. It is essentially a place where assigned readings are discussed, questions can be raised and debates can be conducted.

Workshop for Teachers

A workshop is a flexible environment in which coaching, different kinds of activities, work and learning take place. The main purpose of a workshop is to coach people through work. By a workshop we can mean both the physical operating environment and a diverse method of coaching. Workshops support participants' personal growth, social empowerment, active participation, employability and work skills through communal coaching with an emphasis on practical work. Methods used include work

training and personal and group coaching. Different coaching methods are combined according to the specific needs of each participant. The length of the working day, number of days per week and the work programme can be adapted according to participants' capabilities. A workshop is a working environment that allows participants to build up skills, experiences and self-knowledge, which will give them more realistic chances of accessing training and gaining employment. Workshops support life-management skills, social empowerment, social growth at one's own pace and learning by doing.

Information Communication Technologies for Teachers

Information communication technologies (ICT) at present are influencing every aspect of human life. They are playing salient roles in work places, business, education, and entertainment. Moreover, many people recognize ICTs as catalysts for change; change in working conditions, handling and exchanging information, teaching methods, learning approaches, scientific research, and in accessing information communication technologies (Ezaocha, 2015). In this digital era, ICT use in the classroom is important for giving students opportunities to learn and apply the required 21st century skills. ICT improves teaching and learning and its importance for teachers in performing their role of creators of pedagogical environments. ICT helps a teacher to present his teaching attractively and easy to learn, for the learners at any level of educational programme. Today in Nigeria, teaching training programmes are useful and attractive by utilization of ICT. Information and Communication Technologies (ICTs) exemplified by the internet and interactive multimedia are obviously an important focus for future education and need to be effectively integrated into formal teaching and learning.

Refresher Courses for Teachers

A refresher course is a short training course reviewing or updating previous studies. The training keeps people informed about new developments in their profession. Refresher courses are intended to improve to improve knowledge or skill and also to learn about new development related to the job that people do.

In teachers' education, refresher courses provide opportunities for serving teachers to exchange experiences with their peers and mutually learn from each other. It is usually a forum to be abreast of the latest advances in the subjects being taught by the teachers.

Conferences for Teachers

An academic conference is an event for researchers to present and discuss their works. Conferences usually encompass various presentations. They tend to be short and concise with a time span of about 10 to 30 minutes. Presentations are usually followed by a discussion. The work may be bundled in written form as academic papers and published as the conference proceedings. Usually, a conference will include keynote speakers. The key note lecture is often longer, lasting sometimes up to an hour and half, particularly if there are several keynote

speakers on a panel.

Teachers attend conferences to gain new knowledge and skills, learn about new teaching methods, educational trends and innovations. Attending conferences offer one of the most promising ways of improving classroom instructions. Ode et al (2015) noted that it is an attempt to assist the classroom teachers to improve on their teaching strategies; techniques to handle new instructional materials or possessed the necessary information and skills that are required for effective lesson deliver. It is also a formal meeting of people with shared interest, typically one that takes over several days, mostly held at school level and at cluster level with purpose of reviewing and reflection on teaching practices on a regular basis. Conferences comprise different personalities in the field of education with bountiful idea. This provides opportunity to hear and comment on view of recognized authorities. Furthermore, teachers have access to a broad range of ideas through conference which lead to the enhanced productivity.

Adult Learning Theory

Adult learning theory, often associated with Malcolm Knowles, emphasizes the unique characteristics of adult learners and how these traits influence professional development and school effectiveness. According to Knowles, adults learn differently from children. He identified Self-Directed Learning that suggests that adults prefer to take control or ownership of their learning. This implies that professional development programs should allow educators to identify their own learning needs and set goals, fostering engagement and ownership Kelly (2017).

Malcolm Knowles further noted Experience as a Resource. He stated that adults bring a wealth of experiences that influence their learning. This implies that Professional development should build on the experiences of educators, encouraging collaborative learning and the sharing of best practices (Knowles, 1978)

Another key point is Relevance and Practicality. This Principle states that adults are motivated to learn when the material is relevant to their work. This implies that training should be aligned with the actual challenges teachers face in the classroom, ensuring that skills and knowledge are immediately applicable.

Motivation is another principle which suggests that adults are motivated by internal factors, such as personal growth and professional advancement. This implies that professional development should emphasize personal and professional benefits, creating a culture of continuous improvement.

Learning Environment is also a key point in adult learning because a supportive and respectful learning environment enhances adult learning. The implication is that schools should foster a culture of trust and collaboration, where educators feel safe to share ideas and challenges.

Lastly, Feedback and Reflection according to Knowles are crucial since adults benefit from regular feedback and opportunities for self-reflection. Therefore, professional development should include mechanisms for feedback and reflection, allowing educators to assess their growth and adapt their practices.

Integrating adult learning theory into professional development can significantly enhance school effectiveness. By recognizing and addressing the unique needs of adult learners, schools can create more impactful training programs (Merriam &Bierema, 2014)

Methods

The population of the study included all principals and teachers in the three hundred and twenty-four (324) public secondary schools in Oyo State. The multi-stage sampling procedure and simple random sampling technique were used for proper sample representation. Firstly, the Simple Random Sampling Technique was used to select seventeen (17) local governments from the existing three senatorial districts in Oyo State. Also, the Simple Random Technique was used to select four (4) secondary schools in each of the sampled local government. Four schools were selected in each local government on the basis that Olorunsogo Local Government Area had only four schools. All principals in sampled schools were selected. Lastly, Simple Random Sampling Technique was used to select ten (10) teachers in all sampled schools since no public secondary school in Oyo State currently had less than ten (10) teachers. In total, the study made use of six hundred and eighty (680) teachers and sixty-eight (68) principals. Two instruments titled "Principal Financial Management Questionnaire (PFMQ) and "Teacher Professional Development Questionnaire" (TPDQ) were used for data collection. The validity of the instruments was carried out via face and content validity methods. For the purpose of the reliability of the instruments used in this study, a pilot test was carried out by administering the instruments to group of principals and teachers who shared similar characteristics with the intended population of the study.

Results and Discussions

Analysis of Respondents' Opinion Answering the Research Questions

Research Question One: What are the levels of public secondary school teachers' professional development indices (ICT Training, Refresher courses, Workshops, Seminars and Conferences) in Oyo State?

Levels of public secondary school teachers' professional development indices (ICT Training, Refresher courses, Workshops, Seminars and Conferences) in Oyo State

Table 1: Conference

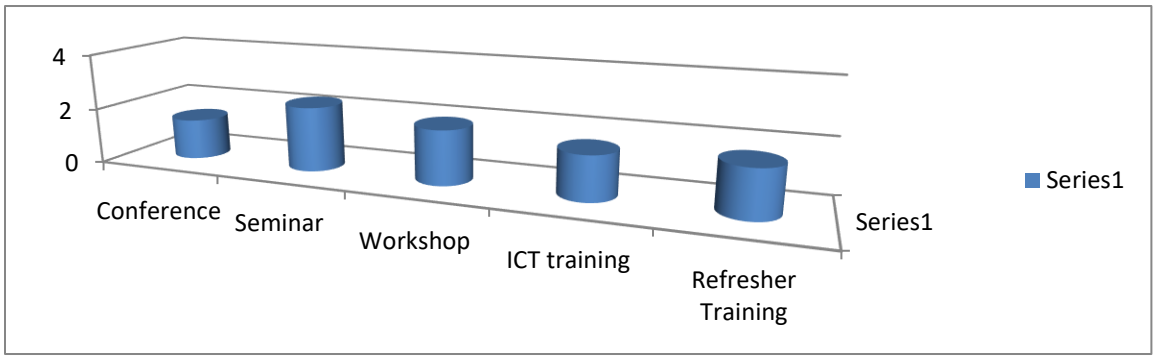
		Frequency	Percent	Mean	Std	Remark
	Not Atall	421	64.4	1.46	0.669	Low
	Very low	168	25.7			
	High	65	9.9			
	Total	654	100.0			
Seminars						
	Not atall	165	25.2	2.32	0.939	Low
	Very low	167	25.5			

	Low	270	41.3			
	High	52	8.0			
	Total	654	100.0			
Workshops						
	Not at all	182	27.8	1.95	0.714	Low
	Very Low	320	48.9			
	High	152	23.2			
	Total	654	100.0			
ICT Training						
	Not at all	441	67.4	1.58	0.878	Low
	Very Low	55	8.4			
	Low	151	23.1			
	High	7	1.1			
	Total	654	100.0			
Refresher Trainings						
	Not at all	301	46.0	1.68	0.757	Low
	Very Low	287	43.9			
	Low	41	6.3			
	High	25	3.8			
	Total	654	100.0			
	Weighted Mean			1.78		Low

Source; Fieldsurvey, 2021
Key : Thrice (4), Twice (3), Once (2), Not atall (1). **Threshold**; < 2.50 is Low, 2.50-2.99 is Moderate and ≥ 3 is High

With a weighted mean of 1.78, it could be said that professional development program was low in public secondary schools in Oyo State.

Figure 1 Showing levels of Teachers' Professional Development in Public secondary schools in Oyo State

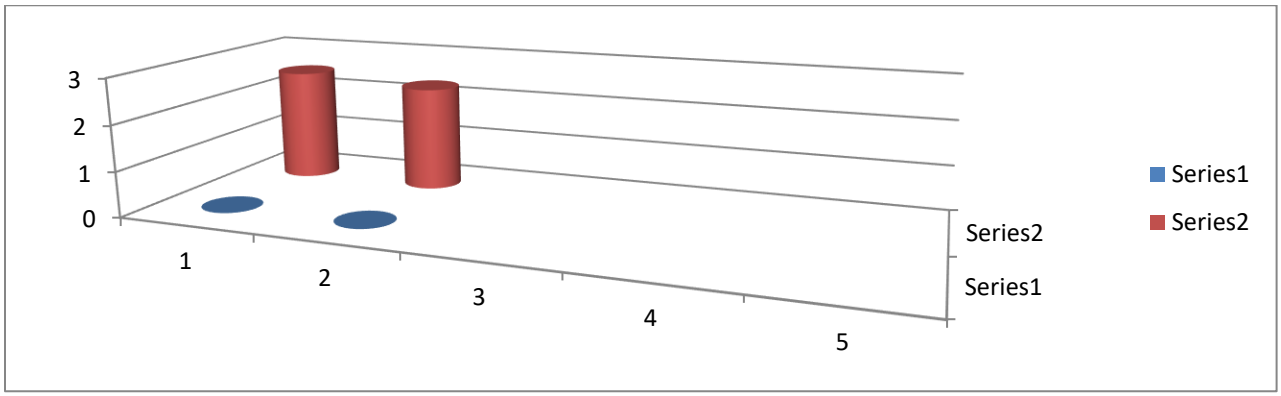


Source, Field survey, 2021

Figure 1 presented on research question one showed that seminar was the most attended professional development programme among public secondary school teachers in Oyo State. This was followed by workshops, refresher courses, ICT training and conferences respectively.

Research Question Two: What is the identified level of school effectiveness in public secondary schools in Oyo State?

Figure 2 showing levels of School Effectiveness (administrative effectiveness and instructional effectiveness) in public secondary schools in Oyo State



Source, Field survey, 2021

From the analysis on research question 2 presented above, it can be submitted that administrative effectiveness is moderate in public secondary schools in Oyo State while instructional effectiveness is low. Also, with overall weighted mean = (2.41) is can be stressed that school effectiveness is low in public secondary schools in Oyo State

Test of Hypotheses

Hypothesis One: There will be no significant combined influence of Principals' Financial Management Indices (Financial Record Keeping and Accountability) and Teachers' Professional Development (ICT Training, Refresher courses, Workshops, Seminars and Conferences) on public secondary school effectiveness in Oyo State.

Table 2: Summary of Multiple Regression (ANOVA) on combined Influence of Principals' Financial Management Indices (Financial Record Keeping and Accountability) and Teachers' Professional Development (ICT Training, Refresher courses, Workshops, Seminars and Conferences) on public secondary school effectiveness in Oyo State

R = 0.855

R^2 = 0.731

Adj. R^2 = 0.699

Std. Error = 0.443

ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	32.011	7	4.573	23.256	.000
Residual	11.798	60	0.197		
Total	43.809	67			

Dependent Variable: School Effectiveness, Predictors: Teachers' Development Indices, Principal Managerial Indices
Source; Field survey, 2021

Table 2 presented the summary of regression analysis of combined influence of Principals' Financial Management Indices (Financial Record Keeping and Accountability) and Teachers' Professional Development (ICT Training, Refresher courses, Workshops, Seminars and Conferences) on public secondary school effectiveness in Oyo State. It showed the ANOVA result of the linear regression of p-value = (0.000) which is less than alpha value of 0.05, this shows that there is a significant influence. Further verification from the table showed (F = 23.256; P <0.05) meaning independent variables Financial Management Indices (Financial Record Keeping and Accountability) and Teachers' Professional Development (ICT Training, Refresher courses, Workshops, Seminars and Conferences) when considered jointly, had significant influence on the dependent variable (school effectiveness) in public secondary school teachers in Oyo State. It also presented (Adj. R^2 = 0.699) meaning 69 percentage the of the total variation was accounted for by the independent variables Financial Management Indices (Financial Record Keeping and Accountability) and Teachers' Professional Development (ICT Training, Refresher courses, Workshops, Seminars and Conferences) when considered together. Therefore, the null hypothesis was rejected.

Hypothesis Two: There will be no significant relative influence of Principals' Financial Management Indices (Financial Record Keeping and Accountability) and Teachers' Professional Development (ICT Training, Refresher courses, Workshops,

Seminars and Conferences) on public secondary school effectiveness in Oyo State.

Table 3: Summary of Multiple Regression (ANOVA) on relative influence of Principals' Financial Management Indices (Financial Record Keeping and Accountability) and Teachers' Professional Development (ICT Training, Refresher courses, Workshops, Seminars and Conferences) on public secondary school effectiveness in Oyo State

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
(Constant)	1.457	.674		2.161	.035
Conference	.493	.309	.234	1.593	.016
Seminars	.585	.206	.513	2.844	.006
Workshops	.124	.107	.086	1.163	.020
ICT Training	.190	.068	.195	2.799	.007
Refresher Courses	.096	.078	.098	1.234	.222
Record Keeping	.189	.087	.273	2.161	.035
Accountability	.642	.147	.463	4.358	.000

Dependent Variable: School Effectiveness

Source; Field survey, 2021

Table 3 presented the summary of regression analysis of relative influence Principals' Financial Management Indices (Financial Record Keeping and Accountability) and Teachers' Professional Development (ICT Training, Refresher courses, Workshops, Seminars and Conferences) on public secondary school effectiveness in Oyo State. The analysis showed that seminar ($\beta = 0.513$, $t = 2.844$, $p < 0.05$) had the highest contribution to school effectiveness when considered separately. This was followed by accountability ($\beta = 0.463$, $t = 4.358$, $p < 0.05$), recordkeeping ($\beta = 0.273$, $t = 2.161$, $p < 0.05$), conference ($\beta = 0.234$, $t = 1.593$, $p < 0.05$), ICT training ($\beta = 0.195$, $t = 2.799$, $p < 0.05$), and workshop ($\beta = 0.086$, $t = 1.163$, $p < 0.05$) respectively. It also presented that refresher courses with ($\beta = 0.098$, $t = 1.234$, $p > 0.05$) was not significant when considered separately. Based on this, the null hypothesis which stated that there will be no significant relative influence of influence Principals' Financial Management Indices (Financial Record Keeping and Accountability) and Teachers' Professional Development (ICT Training, Refresher courses, Workshops, Seminars and Conferences) on public secondary school effectiveness in Oyo State was rejected at 0.05, level of significance

Summary and Conclusion

The aim of the study was to investigate principals' financial Management indices

and teachers' professional development programmes as determinants of school effectiveness in public secondary schools in Oyo State. One dependent variable and two independent variables were considered. The dependent variable was school effectiveness while the independent variables are principals' financial management indices and teachers' professional development programmes. The indices considered for school effectiveness were administrative and instructional effectiveness. Financial record keeping and accountability were the indices examined under principals' financial management while the programmes investigated in teachers' professional development were conference, seminars, workshop, ICT training and refresher courses. The specific objectives of the study were to identify the level of principals' financial management indices, investigate the level of public secondary school teachers' professional development programmes, determine the level of public secondary school effectiveness, investigate the joint influence of principal financial management indices and teacher professional development programmes on public secondary school effectiveness, and investigate the relative influence of principal financial management indices and teachers professional development) on public secondary school effectiveness in Oyo State.

Principals' financial management indices (financial record keeping and accountability) and Teachers professional development programmes (conferences, seminars, workshop, ICT training and refresher courses) were found to have joint contribution on School effectiveness (Administrative and Instructional effectiveness) in Oyo state. The current level of School effectiveness was low and the level of instructional effectiveness is lower than administrative effectiveness. The current level of teachers' Professional development was low. Seminar was the most attended programmes while conference is the least attended. The level of Principals financial management was slightly high and, accountability is higher than record keeping.

Recommendations

The following recommendations were made based on the findings of this study:

1. Principals should be better exposed to knowledge on financial management to improve their capacity to handle record keeping and other financial management activities;
2. Teachers should be aware of the importance of professional development and the need to attend when such programmes are organised;
3. The government should be sensitised and implored on the need to invest more in teachers' professional developmental programmes as this impact on level on instructional effectiveness, hence school effectiveness;

REFERENCES

1. Javornik, Š., & Mirazchiyski, E. (2023). Factors Contributing to School Effectiveness: A Systematic Literature Review. *European Journal of Investigation in Health, Psychology and Education*, 13, 2095 - 2111. https://doi.org/10.3390/ejihpe13100148.
2. Botha R.J.,(2010), School Effectiveness: Conceptualising divergent assessment approaches, South Africa Journal of Education, 30(4), 605- 620
3. Gidari, Styliani & Kakana, Domna (2021), The Effectiveness of a Teachers' Professional Development Program to Improve the Quality of the Preschool Environment, European Journal of Education Studies, 8(8), 244- 267
4. Amadi C&. Dagogo J. (2018), Principals' Quality School Management: A Panacea for Effective Public Secondary Schools in Rivers State, International Journal of Innovative Social Sciences & Humanities Research, 6(2),15-25
5. Ojeleye J. A. (2020), "The Future of Education in Nigeria: Budgetary Allocation Asd An Albatross, International Journal Of Advanced Research Arts, Humanities And Education", 6(5), 20- 28
6. Muneer S., Ahmad R.A, Ali A,(2017), Impact of financial management practices on SMEs profitability with moderating role of agency cost", Information Management and Business Review, 9(1) 23-32
7. Nwaokugha D.& Ezeugwu M.C (2017), Corruption in The Education Industry in Nigeria: Implications for National Development, European Journal of Training and Development Studies, 4(1)1-17
8. Ghenghesh Pauline & Abdelmageed Samar (2018), A Study on the Effects of Staff Development on Teachers' Satisfaction and Perceptions of Change in Teaching, Performance, Journal of Education and Practice 9(16), 43-49
9. Omar Che Mohd, (2014), Need for In-Service Training for Teachers and Its Effectiveness in School, International Journal for Innovation Education and Research, 2(11), 1-9
10. AbdulRab Hanan, (2023), Teacher Professional Development in the 21st Century, African Journal of Education and Practice, 9(4), 39- 50
11. Ezaocha T. (2015), Availability and use of ICT in south – western Nigeria colleges of education. International Multidisciplinary Journal VOL5, 315- 331.

12. Ode Akpam Gabriel, Ashibebongye Adie Joy, Ogar Eucharia Alorye Ogar (2022), Conference Attendance, Information and Communication Technology and Teachers Productivity in Calabar Education Zone, Cross River State, Nigeria International journal of developmental research in education (ijdre) university of Uyo vol2
13. Kelly Jennifer (2017), Professional Learning and Adult Learning Theory: A Connection, Northwest Journal of Teacher Education, 12(2)
14. Knowles M., (1978), Andragogy: Adult Learning Theory in Perspective, Community College Review,5(9), 9-20
15. Merriam S.& Bierema L (2014) Adult Learning: Linking Theory to Practice, San Francisco, CA, Jossey-Bass.