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IMPERATINNESS OF SCHOOL ADMINISTRATORS' TECHNICAL SKILLS ON STUDENTS' ACADEMIC ACHIEVEMENT IN TECHNICAL SECONDARY SCHOOLS IN THE SOUTH WEST REGION OF CAMEROON

By

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Abstract

This article aimed at investigating the impact of school administrators' technical skills on students' academic achievement in Technical Secondary Schools in the South West Region of Cameroon. The variables investigated were; project management skills, financial management skills and school management skills. Data were collected from primary sources through administration of eighteen (18) questions items questionnaire using a four point Likert scale. Three (3) open ended questions items for data collection were constructed. These instruments were administered to eighty eight (88) school administrators and two hundred nineteen (219) teachers. Eight (8) interview guides questions were administered to fifty (50) students, given a total of three hundred and fifty seven (357) participants. The participants were randomly sampled from twenty five (25) functional technical secondary schools in the South West Region of Cameroon. The data collected from the research instruments were both quantitative and qualitative. Findings revealed that; project management skills have significant impact on students' academic achievement with a calculated Chi-Square of 252.361, financial management skills have significant impact on students' academic achievement with a calculated Chi-Square of 56.214 and school management skill have significant impact on student academic achievement with a calculated Chi-Square of 158.256. It was recommended amongst other things that, schools administrators should be trained to effectively manage school activities and finances for the interest of the schools toward students' academic achievement in technical secondary schools in the South West region of Cameroon.

Keywords

Schools Administrators, Technical skills, Students Academic achievements



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INTRODUCTION

Technical skills can be very important for school administrators even when they perform few technically specialized tasks. This is because technical skills may enable school administrators to effectively acquire, develop, organize, and control the human resources needed to accomplish school objectives. Technical skills give school administrators the knowledge and ability to use different techniques to achieve students' academic achievement in technical secondary schools. Rasool (2018), opined that technical skill is the ability to apply knowledge, method, and techniques required to perform certain tasks through experience, education, and training. According to Piskanin and Rudy (2006), technical skill is the ability of managers to use specific methods and techniques in doing managerial work. School administrators' technical skill involves the following features: the ability to plan, organizational skills, personnel management skills, financial and budgeting abilities, skills in assessment and skills needed for coordination and control.

Oluremi (2013) stated that the prevailing situation in which appointment of heads of schools mostly depends on the Bachelor's degree and rank requires a far-reaching upgrade, noting that master degree in education management should be made as a precondition for appointment into the position of secondary school principals. Ajayi and Oni (1992) in Oluremi (2013) asserted that, schools administrators should not only be trained in the art of administration alone but also should be trained on principles of administrative control. This enables them to ensure efficient operations of the school especially when schools administrators apply project management skills, financial management skills and school management skills in an efficient manner in technical secondary schools in the South West Region of Cameroon. Project management skills are related to how schools administrators manage projects in technical secondary schools. They are essential for the development of school resources and infrastructures needed for effective teaching and learning. These skills can help schools administrators to design a project plan, organize, lead and control the implementation process of school projects.

Financial management skills according to Brealey, Myers and Allen (2006), may leads to proper resources allocation to various schools stakeholders. These include accounts receivables, inventories, cash, and short term securities management for improve students' academic achievement. In financial management, three types of management are important namely: Investment strategy management, financial provision and ultimately the profitability and the optimal combination of these three. This can lead to the financial success of technical secondary school organization for proper students' academic achievement if well organized by schools administrators in technical secondary schools (Delkhosh and Mousavi, 2016). School management skills acquired by school administrators can help them do proper planning and organization of school activities to ensure the satisfaction of staff. Ahmad and Ahmad (2018) and Smith Schallenkamp and Eichholz (2006) emphasized the importance of school management skills for school administrators as a means to develop advisory boards, build relationships with colleagues, problem-solving and learning. According to Alison (2021), an administrator with technical skills can help staff and other school administrators to attain school objectives effectively. This can be possible through shared knowledge and collaboration with others in a given task.

Edward and Tyson (2017) investigated on bridging technical skills gaps between High School Students and Local Employers in the University of South Florida. The analysis utilized the narratives of 70 students and four teachers from career academies at four high schools and 27 industry leaders from the same geographical Region of Florida. A phenomenographic research approach was used to

study the ways high school students, teachers, and employers described their experiences and made meaning from learning. Data interpretation led to understanding that employers expressed an urgent need for technical skills using appropriate equipment and technologies. Teachers were teaching students technical skills by simulating the real-world work environment, and students valued their abilities to transform their classroom project ideas into tangible products.

Similarly, Muhammad, Soetyono and Sunardi (2016) in examining technical skills and employability skills of vocational high school students in Indonesia. They used a quantitative approach of non-experimental design with ex-post facto. The research population was made up of 523 students of mechanical engineering skills package with the sample of 221 students (172 males and 49 females). Data collection techniques used were a test questionnaire, and documentation. The data were analyzed using descriptive analysis and structural equation modeling (SEM). The findings showed that the implementation of scientific approach has significant contributions towards the mastery of technical skills and the impact on the employability skills of vocational students. Hence, it can be said that, technical skills and employability skills can be developed through the implementation of a scientific approach.

Moreover, Efande (2015) investigated on the expansion policy of secondary technical education as a correlate to the acquisition of basic technical skills by students in Cameroon. The sample was 40 secondary technical colleges and 20 high schools spread in the Center, Extreme North, Littoral, North West and South West Regions of Cameroon. This included 60 Regional Pedagogic Inspectors, 60 Principals and 300 Teachers in the sector who were retained through a simple random sampling technique. Each grouping filled a structured questionnaire that was designed based on a 4-point Likert Scale for data collection. The data was analyzed using the Pearson's Product Moment Correlation Coefficient. The findings revealed that: the expansion policy of technical education has significant implications on the attainment of the fundamental objectives of this type of education; the expansion of secondary technical education has a significant impact on the quality of technical education provided by the Cameroon government; that infrastructure is grossly inadequate to enhance the acquisition of technical skills as observed in most of Cameroon's technical colleges.

Statement of the Problem

Successful technical secondary schools depend on school administrators' managerial skills in making judicious use of educational resources for students' academic achievement. Students' academic achievement may guarantee the self-reliance of technical secondary schools students and it may improve the livelihood of graduates in the society. However, it has been observed that most graduates of technical secondary schools are not self-reliant and cannot adequately create jobs for themselves and for the good of the society. In today's technical secondary schools, most of the lessons taught are mainly theory and the practical aspect of what is taught is limited. Machines and infrastructures needed for practical lessons are outdated, not functional and sometimes not available at all. This has resulted in students graduating from these technical secondary schools with little or no practical knowledge on their trade specialty and so they may not properly fit in to the job market or create jobs for themselves and the society.

Inadequate school management and lack of teaching infrastructure can caused teachers to be lukewarm in carrying out their teaching job as they usually complained of lack of didactic materials to teach students, inadequate libraries and specialized rooms for independent research by both teachers and learners. This has resulted to students depending on teachers' class lessons for acquisition of

knowledge and skills. Teachers' class lessons alone cannot be a very good knowledge dispensary without text books and other research materials for deeper knowledge acquisition by the students. It is in this light that, this study seeks to investigate whether school administrators' project management skills, financial management skills and school management skills can impact students' academic achievement in technical secondary schools in the South West Region of Cameroon. The following research questions were raised for the study:

1. To what extent do school administrators project management skills impact students' academic achievement in technical secondary schools?
2. To what extent does school administrators financial management skills impact students' academic achievement in technical secondary schools?
3. To what extent does school administrators school management skills impact students' academic achievement in technical secondary schools?

METHODOLOGY

Research Design

The researcher adopted a mixed method research approach. As stated by Creswell and Plano Clark (2011), a mixed-methods research approach is a research approach that has its own philosophical assumptions and methods of inquiry. As a methodology, it includes philosophical assumptions to provide directions for the collection and analysis of data from multiple sources in a single study. In this study, a mixed method convergent parallel design has been employed with the use of quantitative and qualitative data collection methods. A mixed methods approach offers a number of benefits to approach complex research issues as it integrates philosophical frameworks of both post positivism and interpretivism (Fetters, 2016). The intent of integrating a convergent research design was to develop findings and interpretations that expand understanding, comprehension, to validate and confirmed research findings (Creswell and Plano Clark, 2018).

Area of the Study

With regards to educational management and structure, the Region's educational processes are managed by the Regional Delegate of Secondary Education who is appointed by the Minister of Secondary Education. The Region is divided into six administrative Divisions with each of them headed by a Senior Divisional Officer. The educational structures in the Divisions are managed by the Divisional Delegate of Secondary Education, who is appointed by the Minister of secondary education. The Divisions in the South West Region include: Fako, Meme, Kupe Muanengouba, Lebialem, Manyu, and Ndian. In each of these Divisions, there are technical secondary schools and general education secondary schools for the training of citizens. The Divisions are also divided into Sub-Divisions. The sub divisions, some of which are very accessible and some with difficult accessibility. These Sub-Divisions also have good technical and general education secondary schools with great potentials for the training of learners. The South West Region was chosen for this study because of the presence of technical secondary schools. The people of the South West Region are hospitable and God fearing.

Population of Study

The main population of the study comprised of all school administrators, teachers and students of secondary schools in the South West Region of Cameroon. A total of seven hundred and sixty four (764) secondary schools administrators, twelve thousands, eight hundred and seventy two (12,872)

teachers and forty thousands, four hundred and thirty four (40,434) students constituted the population of the study.

Sampling Techniques

The sampling technique used was simple random sampling and purposive sampling techniques. According to Ranjit (2014), simple random sampling and purposive sampling techniques are suitable for convergent parallel research design to select the participating schools and the participants. The fish bowl or the hart and draw method was used to select the participating schools. The names of all government technical secondary schools were written each on a piece of paper folded and put in a bowl. The papers were well shuffled and a child of five-years-old was used to select the schools. The child was blind folded and she was asked to pick the folded pieces of papers each at a time. After each paper picked from the bowl, the name of the school was noted and the paper replaced. Any school selected which has been previously selected was not taken into consideration. The fish bowl method was used to avoid bias and to give each school the same chance of being selected. Purposive sampling technique was employed to select the principals, vice principals and discipline masters/mistresses as they are very much concern with school administration. The purposive sample was used since all the functional schools were eligible for the study.

Instrument for Data Collection

A questionnaire was developed by the researcher with closed and opened ended questions for the 307 participants (school administrators and teachers). The use of questionnaire was to ensure that responses were gathered without disclosing the respondents' identity. This is because the protection of the privacy of the participants will help them give honest responses, (Roopa and Rani, 2017). Qualitative data was obtained from interview guides to 50 students concern with the day-to-day learning. Qualitative data gives idea about the people perception and opinion and allows the researcher to study school administrators' technical skills in relation to technical secondary schools students' academic achievement in greater details. The Likert's scale items questions with closed-ended questions were used for the questionnaire. These items were related to the impact of school administrators' technical skills on students' academic achievement in technical secondary schools on the left hand side of the questionnaire and little boxes on the right hand side of each question item of the questionnaire. Respondents were asked to indicate their level of agreements for these items. The questionnaire items were made up of both positive and negative questions. These items had a four point Likert scale answers of Strongly Agreed (SA) = 4, Agreed (A) = 3, Disagreed (SD) = 2 and strongly Disagreed (D) = 1 for positively cued items and (SA) = 1, Agreed (A) = 2, Disagreed (SD) = 3 and strongly Disagreed (D) = 4 for negatively cued items. Interviews were conducted on selected students to get in-depth information for the study. A tape recorded was used following permission taken from the respondents' to record information for the interview. Interviews were used because they can report a story behind the respondents' experiences (Amin, 2005). It intended to give deep and diverse views of the respondents.

Validity of Instruments

Validity refers to the extent to which a measurement measures what it purports to measure (Gronlun, 1988). In this study, the instrument was subjected to construct validity, face validity, and content validity. To ensure construct validity, the questionnaire used for this study was constructed based on the research objectives to make them measure and capture information the researcher intended to capture. To ensure face validity, the researcher submitted a copy of the questionnaire to colleagues for necessary corrections, adjustments and appropriate modification were made to the questionnaire. For content validity, the questionnaire was constructed using the indicators of the research variables only.

These indicators assisted the researcher to capture the exact information needed for the study. The content validity indices for the data extracted from the questionnaire and interview guides were 0.88 and 0.89 respectively calculated from SPSS version 23.0. These values indicated that, there is appropriate sample of items in the construct being measured and that the scale used is appropriate for the questionnaire.

Reliability of Instruments

Mugenda and Mugenda (2003) define reliability as a measure of the degree to which a research instrument yields consistent results or data after repeated trial. An instrument is reliable when it can measure a variable accurately and obtain the same results over a period of time. Reliability was achieved through the test-retest method. In this method, the same group of administrators who were used for the pilot study were re-administered another set of the same instrument two weeks later. In order to establish the reliability of the research instrument used in the study, ten (10) questionnaires were administered to five (05) principals and five (05) discipline masters in Kumba Municipality, South West Region of Cameroon by the researcher. The Cronbach's Alpha was used to test the reliability of the instrument. The findings of the two tests were calculated by Cronbach's Alpha Coefficient which is used when items are not scored dichotomously. The reliability coefficients calculated ranged from 0.79 to 0.89 for the variables under study. This implied that, the instrument is consistent for the responses with respect to all the variables since the Cronbach's Alpha Coefficients for the variables are above 0.70. This indicated that, the questionnaire is good and reliable for the study.

Method of data Analysis

Chi-Square was used to bring out the impact of school administrators' managerial skills on students' academic achievement in technical secondary schools in the South West Regions of Cameroon. The Chi-Square (X^2) tests help the researcher to determine whether there exists any impacts of school administrators' managerial skills on technical secondary school students' academic achievement. It is also to determine whether the two variables are independent of each other or not and to bring out any possible relationship between these two variables

FINDINGS AND DISCUSSIONS

The findings revealed that School administrators' project management skills have significant impact on students' academic achievement in technical secondary schools in the South West Regions of Cameroon with calculated Chi-Square of 252.361 at 5% significant error ($P = 0.000$). This is manifested as respondents attested that schools administrators are using their schools resources very well to improve the teaching learning process in technical secondary schools. The findings concur with Administrative theory by Fayol's Esprit de Corps principle. This principle implies that, there should be harmony, belongingness and unity of efforts among staff during material resources management, pedagogic management and accounting management of the school resources. Similarly, Diksha (2017) supported this finding by stating that, school administrators are responsible for integrating human and material resources that are made available for educational institutions. In this light, they used various methods and ability to manage technical secondary schools toward students' academic achievement.

Findings also showed that school administrators' financial management skills have significant impact on students' academic achievement in technical secondary schools in the South West Region of Cameroon with calculated Chi-Square value of 56.214 at 5% significant errors ($P = 0.0251$). It is in

this vein that respondents attested that, schools administrators plan for a successful school year and prepare schools budget for the improvement of student learning process. The findings also showed that schools administrators do not effectively manage school finance for the interest of the schools and they do not manage schools activities to the satisfaction of the staff. This contradicted Molyneaux (2011) who opined that, school resources management involves the acquisition, allocation, proper use, and coordination of human, material, physical, and financial resources needed to promote instructions at various levels of education. Similarly, findings revealed that school administrators keep proper schools accounting records in technical secondary schools. This is in line with Administrative theory by Fayol (1841) parity of authority principle. The principle stated that whosoever authority is given to exact obedience, he/she must be held accountable.

Findings also showed that school administrators' school management skills have significant impact on students' academic achievement in technical secondary schools in the South West Region of Cameroon with calculated Chi-Square of 158.256 at 5% significant error ($P = 0.0001$). In this vein, respondents opined that workshops in technical secondary schools should be equip and used. This will enable schools administrators to direct resources allocated to schools toward students learning, especially when the workshops are equip with relevant equipment and tools. Similarly, findings advocated for improved collaboration so that teachers will have a common goal for the students. This collaboration will help teachers solve student problems by setting common end of term examinations in particular Regions and Division in order to improve good students'- teachers' relationship. Furthermore, findings revealed that to increase learners' skills development, students' should be encouraged to learn independently. This can be done by allowing them to use practical resources at their individual times to gain skills. This is supported by Ghalandari, Ghorbani, Jogh, Imani and Nia (2012) as they opined that, school management skills enable the school administrator to supervise and effectively coordinate instructional aspect of school administration. In this connection, respondents asserted that schools administrators and teachers should make resources available to learners to improve their skills in technical secondary schools.

Table 1:
Statistical Values per variable

Variables	Chi-Square	P-Value
Project Management Skills	252.361	0.0000
Financial Management Skill	056.214	0.0251
School management Skill	158.256	0.0001

Conclusion

This study investigated the impact of school administrators' technical skills on students' academic achievement in technical secondary schools in the South West Region of Cameroon. The focus of the study was on principals, vice principals, discipline masters, teachers and selected students in functional technical secondary schools in the South West Region of Cameroon. It was found that the government has made considerable efforts to create and build several technical secondary schools in urban and rural areas in all the six Divisions of the South West Region of Cameroon. The findings showed that school administrators' technical skills have significant impact on students' academic achievement in technical secondary schools in the South West Region of Cameroon.

Recommendations

Based on the findings, the following recommendation emanated

1. Schools administrators should be trained to effectively manage school activities and finances for the interest of the schools.
2. Schools administrator are expected to prepare schools budget for each school year and tailor it for the improvement of student learning process.
3. Schools administrators and teachers should be trained in in-service seminars on technical skills and administrative practices so as to be able to improve students' academic achievement in technical secondary schools.

Suggestions for further Studies

This study cannot accurately generalize the findings to other Regions and other nations' technical educations. The study was delimited in geography, theories, inferential statistics analysis and concept scope. The same study should be carried out in other nations and other regions of the Republic of Cameroon to validate these findings. Further research should be replicated using longitudinal design and quasi-experimental framework to properly examine schools administrators' technical skills and students' academic achievement in technical secondary schools in the South West Region of Cameroon and other countries.

References

- Ahmad, I., & Ahmad, S. (2018). The Mediation Effect of Strategic Planning on The Relationship Between Business Skills and Firm's Performance. *Opcion*, 35 (24).
- Ajayi, T. A., Oni, E. (1992). *Functional approach to school organization and management*. Ijebu-Ode: Triumph books publishers.
- Allison, P. (2021). Approach: Strategy Articulation. *Allison Partners*. Retrieved from http://www.allisonpartners.com/services/strategy_articulation/ 08/10/2022.
- Amin, M. E. (2005). *Social Sciences Research: Conception, Methodology and Analysis*. Kampala: Makerere University Printing.
- Brealey, R., Myers, S., & Allen, F., (2006). *Working Capital Management. Corporate Finance*. (10th Ed.). The McGraw-Hill Companies.
- Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and Conducting Mixed Methods Research*. Sage Publications.
- Creswell, J. W., & Plano, C. V. L. (2018). *Designing and Conducting Mixed Methods Research* (3rd ed.). Sage Publications, California.
- Delkhosh, M., & Mousavi, H. (2016). Strategic Financial Management Review on the Financial Success of an Organization. *Mediterranean Journal of Social Sciences MCSER Publishing, Rome-Italy*, 7(2), 30-34. <https://doi.org/10.5901/mjss.2016.v7n2s2p30>
- Diksha, S. (2017). A study of the effects of Digital Learning on learning motivation and learning outcome. *EURASIA Journal of Mathematics Science and Technology Education*, 7(13). Retrieved from <https://www.ejmste.com>
- Edward, P. L., and Tyson, J. (2017). Balanced Skills and Entrepreneurship. *The American Economic Review*,94(2).
- Efande, N. S. (2015). *The Expansion Policy of Secondary Technical Education as a Correlate to the Acquisition of Basic Technical Skills by Students in Cameroon*. University of Buea, Cameroon.
- Fayol, H. (1841). *General and Industrial Management*. London: Pitman.
- Fetters, M. D. (2016). Haven't we always been doing mixed methods research? Lessons learned from the development of the horseless carriage. *Journal of Mixed Methods Research*, 10(1), 3–11. <https://doi.org/10.1177/1558689815620883>
- Ghalandari, K., & Ghorbani, M., Jogh, G., Imani M. & Nia, L. (2012). The Effect of Emotional Labour Strategies on Employees Job Performance and Organisational Commitment in Hospital Sector: Moderating Role of Emotional Intelligence in Iran. *World Applied Sciences Journal*, (17) 3.

Gronlund, N. E. (1998). *How to construct achievement tests*: (4th ed). Prentice Hall, Englewood Cliffs NJ

Molyneaux, K. J. (2011). Uganda's universal secondary education policy and its effect on 'empowered' women: how reduced income and moonlighting activities differentially impact male and female teachers. *Research in Comparative and International Education*, (1), 6. 62-78.

Mugenda, O. M. & Mugenda, A. G. (2003). *Research methods: Quantitative and qualitative approaches*. Nairobi Acts Press.

Muhammad, Y., & Soetyono, I. (2016). *Letjend, Hertasing Utara IIIB, No. 15 Makassar South Celebes*, Indonesia.

Oluremi, O. F. (2013). Enhancing educational effectiveness in Nigeria through teacher's professional development. *European Scientific Institute*.

Piskanin, A., Rudy, J. (2006). *Introduction to Management (Slovak version)*. Bratislava: Comenius Unoversity.

Ranjit, K. (2014). *Research Methodology (4th ed)*. Los Angeles: Sage Publication.

Rasool, N. (2018). Structural Equation Modelling of Empowerment of Employees According to Knowledge Leadership and Knowledge Management in Sport Management. *J Phy Fit Treatment & Sports*. 3(3): 555613. DOI: 10.19080/JPFMTS.2018.03.555613.

Roopa, S, & Rani, M. S. (2017). Questionnaire Designing for a Survey. *J Ind Orthod Soc*, 46 (4).

Schallenkamp, K., & Eichholz, D. E. (2006). Entrepreneurial skills assessment: an exploratory study. *International Journal of Management and Enterprise Development*, 4(2).