# Quality Assurance Indices as Correlates of Students' Academic Achievement in Public Secondary School in Imo State

**Israel Chijiuka Oparaji, Ph.D.**
Department of Educational Management and Policy,
Nnamdi Azikiwe University, Awka, Nigeria.

**Innocent C. Igbokwe, Ph.D.**
Department of Educational Management and Policy,
Nnamdi Azikiwe University, Awka, Nigeria.
Corresponding author : ic.igbokwe@unizik.edu.ng

**Adeline N. Anyanwu, Ph.D.**
Department of Educational Foundations
Nnamdi Azikiwe University, Awka, Nigeria.

**Anthony C. Ugwude, Ph.D.**
Department of Educational Management and Policy,
Nnamdi Azikiwe University, Awka, Nigeria.

**Corresponding author : ic.igbokwe@unizik.edu.ng**

DOI: 10.29322/IJSRP.10.09.2020.p10558
http://dx.doi.org/10.29322/IJSRP.10.09.2020.p10558

**Abstract**
In this study, the researcher investigated the relationship between quality assurance predictors and students' academic achievement in public secondary schools in Imo State, Nigeria. The research design adopted for the study is the descriptive survey research design. Four research questions and five hypotheses guided the study. The population of the study consisted of 208,465 students from 320 public secondary schools in the study area. The simple proportionate random sampling was adopted to choose 4,126 students as the sample size from 6 public secondary schools in the state with 2 secondary schools chosen from each of the 3 educational zones of Imo state. The instrument used to collect data was Quantity Assurance Indices as Correlates of Academic Achievement of Students in Public Secondary Schools Questionnaire (QAICAASPSSQ). The instrument was validated by 3 experts; two from the Department of Educational Management and Policy and one from the Department of Educational Foundations. The instrument comprises two sections. Section A is concerned with the influence of quality assurance indices on students' academic achievement while section B dealt with the impediments that hinder quality assurance indices from enhancing students' academic achievement. The validity of the instrument was established through a pilot-testing analysis using Cronbach alpha which yielded 0.86 and 0.87 respectively and an average of 86.5 which was considered high enough to be reliable. For the purpose of the analysis, each of the items in the instrument was scored. The four points rating scale was used in scoring the responses of the respondents. Each item was weighted and calculated as: Strongly Agree (SA) = 4points, Agreed (A) = 3points, Disagree (D) = 2points and Strongly Disagree (SD) = 1 point. Data were collected by the researcher with the help of five research assistants. Pearson Product Moment Correlation and regression analysis were used to carry out the analysis. Pearson Product Moment Correlation was used to answer the research questions and to test the null hypotheses 1,2,3 and 4 while regressional analysis was used to test hypothesis 5. In testing the hypotheses, when p-value was lesser than 0.05 ($P < 0.05$), it was rejected while a hypothesis with p-value greater than 0.05 was accepted. Data were analysed using Statistical Packaging for Social Sciences (SPSS). It is therefore recommended that personnel and other quality assurance indicator should be provided in schools for effective teaching and learning.

**Key Words**: Quality Assurance, Indices, Correlates, Students, Academic Achievement

## Introduction

All human agencies especially those engaged in human capital development like secondary schools are in need quality assurances because quality assurance is the process of ensuring that the learners are maximally imparted with the skill and knowledge as was stated in national educational goals (Okeke-James, et al, 2020). Therefore, an investigation into the indices of

quality assurance is a necessary and worthy task. They are the instruments that pattern job performance and quality service delivery in every organization (Kerka, 2003). Quality assurance indices are the indicators that are used to establish or enhance the performance of an acceptable standard of work (UNESCO, 2012).

The word quality indicates a high degree of goodness. It is a high standard of excellent service or work. It is a level of satisfaction that is associated with work done or service rendered (Gibson, 2007). Quality, according to NBTE (2014) is efficiencies of service that conform to the standards and good result demanded by clients. In business circles, quality can be taken to mean a sublime standard of service, job or product that has met the prescribed degree of excellence. In educational system, quality is the satisfaction of stakeholders such as parents, students, teachers and the general public that the teaching, training and learning offered including research work carried out by staff and students are of expected standard.

Quality assurance as a concept defines all planned and systematic actions or process necessary for providing sufficient confidence to managers and clients that the products or services being offered will satisfy the required or specific requirements for quality use. It is a process of ensuring that controlled mechanisms are working to maintain and enhance standard (Edumark, 2016).

In the school system, quality assurance is the totality of the system's resources and information devoted to setting up, maintaining and improving the quality and standard of teaching, mentoring and monitoring, research and services to the public. Mensah (2009) stated that quality assurance also involves the evaluation of a system or a school and its operations against certain prescribed standards for self-assurance that control devices are working to make output or result correspond to set objectives. Within the context of teaching and learning, quality assurance means that the process of ensuring that practices and procedures or actions intended to enhance quality and excellence in the key areas of classroom lesson delivery and test administration are complied with.

At the level of educational administration and planning designed to guarantee improved students' academic achievement, quality assurance indices imply all the efforts being made by government, non-educational agencies, education planners and school authorities to provide quality education. It is the provision of tools that can be used to establish confidence that activities which centre on knowledge articulation and transformation of students are carried out with optimum standards in school. It therefore speaks of the provisions and effectiveness of methods that ensure quality teaching and mentorship in school (Edumark, 2016).

These provisions are funding, personnel, facilities, motivation, and supervision. The issue of funding is concerned with the money that is used to run the school. Education as a social and essential service cannot run without money. It is money that is used to pay staff and procure facilities for both staff and students to use in school (Coornson, 2008). As a matter of fact, Whitehead (2006) asserted that whatever that is available in a school in terms of science equipment, libraries, buildings and other accessories to learning is a direct function of the amount of money made available to the school. Money is given to school in the form of grants through the state or national budgetary allocation to education. It is however unfortunate that budgetary allocation to education in Nigeria is low and Imo State is not an exception and this is in spite of the directions of UNESCO in that regard.

UNESCO (2008) stipulated that 26 percentage of annual budget of developing countries should be allocated to education and the reason for this is not far-fetched. Education is fundamental to the development of a think-tank of any nation. So, any nation that places high premium on human capital development and must have a sustainable welfare and infrastructural development should pay special attention to education and invest money on it.

The idea of personnel refers to the people that make up the staff of an organization or school. Their recruitment, selection, placement, appraisal and development are fundamentally the duty of the ministry and the school authority (Edumark, 2016). Personnel involve people and the whole duty of planning, organizing and controlling can be seen as objective tasks that are assigned and carried out by people in the school. Thus, every event in the school setting revolves around people (Dickson, 2009).

Therefore, the provision of adequate personnel in a school is corollary to quality job performance. Adequacy here means recruiting and posting trained and qualified teachers in their right numbers to schools. Cornel (2007) stated that teachers are the ones that implement the curriculum as they teach the students in their normal work. They are part of policy planners and they are the ones that implement school rules and regulations. They ensure that deviants within the students' community are disciplined in order to enforce obedience or compliance to school rules and regulations.

The provision of facilities in a school is a major effort at making the school system to work (Hagfiz, 2006). Facilities constitute a unique aspect of quality assurance indices. They are service equipment in the laboratory, equipped school libraries, spacious classrooms for students, offices for the principal and every other staff, resource materials for teachers, fans, air conditioners and even computers and cabinets that help to make work easy. In fact, Longe (2007) stated that facilities make up the infrastructures in the school. Longe further stated that these facilities need to be adequately provided in the school if teaching and learning must go on effectively.

Motivation is what makes people behave or act the way they do. It is a matter of perception which makes a worker express his needs and the satisfaction that elicits commitment from him (Simon, 2007). Motivation is defined by Edumark (2008) as the provision of money and material fillips that satisfy the emotional and psychological needs of a worker. The extent to which workers behave, depends on the degree to which their needs have been provided for. Simon (2007) pointed out that in motivation, the overriding consideration is that workers especially teachers in the school system contribute their goals to the growth of the organization in return for the inducement the organization or the school offers them.

According to Walter (2006), workers sustain their membership of an organization when their activities result in the realization of the organizational set goals and contribute directly or indirectly to the achievement of their individual goals. The process of motivation is initiated by the conscious or unconscious recognition and effort to satisfy the needs of workers. Supervision involves the presence of a superior officer in the work place, looking out for the performance of the junior workers. It is the process of inspecting what is done to know if performance is in line with what is expected to be done (Elymer, 2008).

Combi (2006), states that it is the assessment of work technology or instrument used to do the work and the results of work done to ascertain whether it conforms to job design and expected outcome. In the school system, there is a strong system of constant supervision of workers and operatives (Lutan, 2006). The advantages of this cannot be over-emphasised. It reduces waste of materials and makes the younger teaching and non-teaching staff to be more committed to their jobs knowing that their departmental heads and other senior colleagues are monitoring them.

Academic achievement refers to the performance, result or outcome of learning and test conducted in a term or school year. Academic achievement can be said to be the knowledge attained or degree of competence in school assignments and activities. The poor or low level of academic achievement in school makes the provision of quality assurance indicators very necessary. It has been argued that the students' ability to study independently, the school climate and parents' ability to monitor the academic work of their children account for the performance of the students more than the provision of quality assurance indicators.

Kroma (2009) however, stated that the availability of quality assurance indicators in their right quantity and quality facilitates the independent study and research of students. The idea of quality assurance is not a novel. The history could be traced to the world war II when ammunition was inspected and tested. Most of the guns used in the war were discovered to be defective after the war. This according to Edumark (2016) accounted for why they were not maximally used. Today, quality assurance systems emphasize dictating or identify errors or defects before going into final production. In the school system, it is checking leakages and closing defective outlets in teaching and learning in order to attract and sustain the confidence of stakeholders in the educational system. It is a mechanism of ensuring an improved students' academic achievement at the end of the school year.

**Statement of the Problem**

The purpose of this study is to investigate the impact of quality assurance indices on the academic achievement of students in public secondary schools in Imo state. Quality assurance indices are the totality of resources, human and material that ate devoted to the setting up, maintaining and improving the quality and standards of teaching, research and other services tendered to students in the school.

It involves problem identification, system evaluation and operational editing in a school in order to ensure that teaching and learning are of acceptable quality and standards. It is believed that if quality assurance indicators are adequately provided in the school, and teachers adopt the right pedagogy, there will be an enhanced students' academic achievement.

However, in Imo state, the academic achievement of students has persistently been low (WAEC Chief Examiners' Report, 2017). In addition to this, there seem to be the dearth of empirical studies on the effects of quality assurance indices on the academic achievement of students in public secondary schools. This accounts for why this study is directed to investigate quality assurance indices as correlates of students' academic achievement in public secondary schools in Imo State, Nigeria.

**Purpose of the Study**

The purpose of the study was to ascertain the relationship between quality assurance indices and academic performance of students in public secondary schools in Imo state. Specifically, the study investigated;

1. The relationship between availability of personnel and academic achievement of students in public secondary schools in Imo state.
2. The relationship between availability of facilities and academic achievement of students in public secondary schools in Imo state.
3. The relationship between teacher motivation and academic achievement of students in public secondary schools in Imo state.
4. The relationship between instructional supervision and academic achievement of students in public secondary schools in Imo state.

**Research Question**

The study is guided by the following research questions.

1. What is the relationship between availability of personnel and academic achievement of students in public secondary schools in Imo state?
2. What is the relationship between availability of facilities and academic achievement of students in public secondary schools in Imo state?
3. What is the relationship between teacher motivation and academic achievement of students in public secondary schools in Imo state?
4. What is the relationship between instructional supervision and academic achievement of students in public secondary schools in Imo state?

**Hypotheses**

The following hypotheses have been adopted to aid the study

1. There is no significant relationship between availability of personnel and academic achievement of students in public secondary schools in Imo state.
2. There is no significant relationship availability of facilities and academic achievement of students in public secondary schools in Imo state.
3. There is no significant relationship between teacher motivation and academic achievement of students in public secondary schools in Imo state.

4. There is no instructional supervision and academic achievement of students in public secondary schools in Imo state.
5. There is no significant combined relationship between availability of personnel, availability of facilities, teacher motivation and instructional supervision and academic achievement of students in public secondary schools in Imo state.

**Method**

The study investigated quality assurance indices as correlates of academic achievement of students in public secondary schools in Imo state. The study adopted correlation research design. Four research questions and five null hypotheses guided the study. The population of the study consisted of 208, 465 students from 320 public secondary schools in the study area. The simple proportionate random sampling was adopted or used to choose 4,126 students from 6 public secondary schools in the state with 2 secondary schools chosen from each of the 3 educational zones of Imo state.

The instrument used for data collection was Quality Assurance Indices as Correlates of Academic Achievement of Students in Public Secondary Schools Questionnaire (QAICAASPSSQ). The instrument for the study was validated by three experts, two from the Department of Educational Management and Policy and one from the Department of Educational Foundations. The instrument consists of two sections. Section A is concerned with the influence of quality assurance indices on students' academic achievement while section B has to do with the impediments that hinder quality assurance indices from enhancing students' academic achievement.

The validity of the instrument was established through a pilot-testing and analysis using Cronbach alpha which yielded 0.86 and 0.87 respectively and an average of 86.5 which was considered high enough to be reliable. For the purpose of the analysis, each of the items in the instrument was scored. The four-rating scale was used in scoring the responses of the respondents. Each item was weighted and calculated as; Strongly Agreed (SA) = 4points, Agreed (A) = 3 points, Disagree (D) = 2points and Strongly Disagree (SD) = 1point.

Data were collected by the researcher with the help of five research assistants. Pearson product moment correlation and regression analysis were used to carry out the analysis. Pearson product moment correlation was used to answer research questions and to test null hypotheses 1, 2, 3 and 4 while regression analysis was used in testing hypothesis 5. In testing the hypotheses, any hypothesis with p-value lesser than 0.05 ($p < 0.05$) was rejected while a hypothesis with p-value greater than 0.05 was accepted. Data were analysed using Statistical Package for Social Science (SPSS).

**Results**

**Research Question 1**

What is the relationship between availability of personnel and academic achievement of students in public secondary schools in Imo state?

**Table 1: Pearson correlation co-efficient of availability of personnel and students' academic achievement**

| Variables | N | $\bar{X}$ | SD | r | Relationship |
|---|---|---|---|---|---|
| Availability of Personnel | | 3.94 | 0.68 | | |
| | 4,113 | | | 0.82 | Strong positive relationship |
| Students' Academic Achievement | | 3.65 | 0.96 | | |

Table I indicates a correlation index of 0.83 showing a strong positive relationship between the availability of personnel and students' academic achievement. This means that availability of teaching and non-teaching personnel in schools enhances academic achievement of students.

**Research Question 2**

What is the relationship between availability of facilities and academic achievement of students in public secondary schools in Imo state?

**Table 2: Pearson correlation co-efficient of availability of facilities and students' academic achievement**

| Variables | N | $\bar{X}$ | SD | r | Relationship |
|---|---|---|---|---|---|
| Availability of Facilities | | 3.79 | 0.71 | | |
| | 4, 113 | | | 0.85 | Strong positive relationship |
| Students' Academic Achievement | | 3.53 | 0.83 | | |

Table 2 shows a Pearson's coefficient (r) of 0.85 which indicates a strong positive relationship between availability of facilities and students' academic achievement. This means that the provision of facilities in schools enhances students' learning and academic achievement.

**Research Question 3**
What is the relationship between teacher motivation and academic achievement of students in public secondary schools in Imo state?

**Table 3: Pearson correlation co-efficient of teachers motivation and students' academic achievement**

| Variables | N | $\overline{X}$ | SD | r | Relationship |
|---|---|---|---|---|---|
| Teachers Motivation | | 3.19 | 0.59 | | |
| | 4,113 | | | 0.91 | Strong positive relationship |
| Students' Academic Achievement | | 2.82 | 0.85 | | |

Table 3 shows a Pearson's coefficient (r) of 0.91 which indicates a strong positive relationship between teachers motivation and students' academic achievement. This means that the motivation of teachers enhances students' academic achievement in secondary schools.

**Research Questions 4**
What is the relationship between instructional supervision and academic achievement of students in public secondary schools in Imo state?
**Table 4: Pearson correlation co-efficient between instructional supervision and students' academic achievement**

| Variables | N | $\overline{X}$ | SD | r | Relationship |
|---|---|---|---|---|---|
| Instructional Supervision | | 3.67 | 0.77 | | |
| | 4,113 | | | 0.81 | Strong positive relationship |
| Students' Academic Achievement | | 3.52 | 1.09 | | |

Table 4 shows a Pearson's coefficient (r) of 0.81 which indicates a strong positive relationship between instructional supervision and students' academic achievement. This means that effectiveness of instructional surpervision in secondary schools enhances students' academic achievement.

**Testing of Hypotheses**
**Hypothesis 1**
There is no significant relationship between availability of personnel and academic achievement of students in public secondary schools in Imo state.

**Table 5: Pearson product moment correlation analysis of relationship availability of personnel and students' academic achievement**

| N | cal. r | df | P-value | Remarks |
|---|---|---|---|---|
| 4,113 | 0.81 | 4,111 | 0.01 | Significant |

Table 5 shows that at 0.05 level of significance and 4,111 degree of freedom, the p-value is 0.01. Since the p-value of 0.01 is less than the alpha level (p-value = 0.01 < 0.05), the null hypothesis is rejected. This means that there is a significant relationship between availability of personnel and academic achievement of students in public secondary schools in Imo state.

**Hypothesis 2**
There is no significant relationship availability of facilities and academic achievement of students in public secondary schools in Imo state.

**Table 6: Pearson product moment correlation analysis of relationship availability of facilities and students' academic achievement**

| N | cal. r | df | P-value | Remarks |
|---|---|---|---|---|
| 4,113 | 0.85 | 4,111 | 0.04 | Significant |

Table 6 shows that at 0.05 level of significance and 4,111 degree of freedom, the p-value is 0.04. Since the p-value of 0.04 is less than the alpha level (p-value = 0.04 < 0.05), the null hypothesis is rejected. This means that there is a significant relationship between availability of facilities and academic achievement of students in public secondary schools in Imo state.

**Hypothesis 3**

There is no significant relationship between teacher motivation and academic achievement of students in public secondary schools in Imo state.

**Table 7: Pearson product moment correlation analysis of relationship between teachers motivation and students' academic achievement**

| N | cal. r | df | P-value | Remarks |
|---|---|---|---|---|
| 4,113 | 0.91 | 4,111 | 0.00 | Significant |

Table 7 indicate that at 0.05 level of significance and 4,111 degree of freedom, the p-value is 0.04. Since the p-value of 0.00 is less than the alpha level (p-value = 0.00 < 0.05), the null hypothesis is rejected. This means that there is a significant relationship between teacher motivation and academic achievement of students in public secondary schools in Imo state.

**Hypothesis 4**

There is no instructional supervision and academic achievement of students in public secondary schools in Imo state.

**Table 8: Pearson product moment correlation analysis of relationship instructional supervision and students' academic achievement**

| N | cal. r | df | P-value | Remarks |
|---|---|---|---|---|
| 4,113 | 0.81 | 4,111 | 0.02 | Significant |

Table 8 shows that at 0.05 level of significance and 4,111 degree of freedom, the p-value is 0.02. Since the p-value of 0.02 is less than the alpha level (p-value = 0.02 < 0.05), the null hypothesis is rejected. This means that there is a significant relationship between instructional supervision and academic achievement of students in public secondary schools in Imo state.

**Hypothesis 5**

There is no significant combined relationship between availability of personnel, availability of facilities, teacher motivation and instructional supervision and academic achievement of students in public secondary schools in Imo state.

**Table 9: Regression analysis on the combined relationship of the predictor variables on students' academic achievement**

| N | R | R Square | Adjusted R Square | % | Cal. F | df | P-value | Remarks |
|---|---|---|---|---|---|---|---|---|
| 4,113 | 0.097 | 0.009 | 0.008 | 0.8 | 8.50 | 4,111 | 0.00 | Significant |

Table 9 shows that with R Square Adjusted of 0.008 which means that the relationship between availability of personnel, availability of facilities, teacher motivation and instructional supervision jointly contribute 0.8 percent of students' academic achievement. Also, at 0.05 level of significance, 2 df numerator and 4,111 df denominator the calculated F8.50 with P-value 0.00, the null hypothesis is rejected. This means that there is a significant combined relationship between the predictor variables and academic achievement of students in public secondary schools in Imo state.

**Discussion**

The findings of the study as contained in Table 1 showed that there is a strong positive relationship between availability of personnel and students' academic achievement. This suggests that the availability of teaching and non-teaching personnel in their right quality and number enhances the academic achievement of students. However, the case of the schools in the study area is

different. There is shortage of personnel especially the teaching staff and this accounts for the poor performance of students in examination (WAEC Examiners Report, 2017).

In table 2, the finding indicated that there is a strong positive relationship between availability of facilities and students' academic achievement. This presupposes that the more facilities are available, the higher the academic achievement of students. This is in agreement with the submissions of Longe (2007). Facilities in public secondary schools in Imo State are always inadequate and this is due to the ever-increasing students' enrolment in schools.

In table 3, it could be seen that there is a strong positive relationship between motivation and students' academic achievement. Motivation here represents all forms of incentives given to teachers to encourage them do their work well. It ranges from in-service training arranged in the form of workshop or seminar to prompt payment of teachers' salaries and promotion of teachers as and when due (Eaton, 2005).

However, in Imo state, teachers' promotion to the next rank is irregular while their salaries are always delayed. This according to Edumark (2016) affects teachers' productivity and discourages their initiativeness.

In table 4, the finding showed that there is a strong positive relationship between instructional supervision and students' academic achievement. This means that academic achievement of students is enhanced if their academic works are monitored and they are mentored on what to do from time to time.

Cumulatively, the findings of the study revealed that there is a high or strong positive relationship between the correlate or predictor variables with students' academic achievement.

## Conclusion

The findings of this study indicated that there is a strong positive relationship between quality assurance indicators and students' academic achievement (Mensah, 2009). It would however be agreed as Kroma (2009) puts it that if these quality assurance predictors are not provided in their correct quantity and quality, students' academic achievement will drop.

## Recommendation

Based on the above findings, the following recommendations are made;

1. Government should recruit and send teaching and non-teaching staff to schools in their number and quality.
2. Government should provide enough facilities to schools to facilitate teaching and learning. The Parent-Teacher Association should assist government in the provision of desks, books and even construct classroom blocks to assist the government provide the facilities required for learning in schools.
3. Motivation of staff is important in making the staff do their work diligently. Teachers in schools should be promptly paid their salaries and promoted in their due time. This will increase their commitment and make them happy doing their job.
4. Instructional supervision of students as they go about their academic activities should be intensive. Teaching job includes mentorship which covers guidance and counselling. Quality time should be adopted to mentorship in school as it helps to provide direction to students.
5. Finally, it is essential to note that as good as the quality assurance indicators could be, money or funding remains the only means of making them available in schools. It is hereby recommended that government should increase its funding of schools with good monetary allocation to schools.

## References

Combi, M. (2006). *Learn and work: A journal of stress management* Oxford University Press.

Coomson, J. (2008). Organizational Management in an age of globilization Issues and Prospects. Oxford University Press.

Cornel, E. (2007). Crisis Management in the industry: A Handbook for managers. Oxford University Press.

Dickson, T. (2009). The essence of Quality Assurance in School; Cambridge University Press.

Edumark (2016). Quality Assurance Indices and Academic Performance of Students. Edumark publication Ltd.

Elymer, F. (2008). Work pattern and standards; Vol 1(3), 126 -134 Columbia University, press.

Gibson, T.A. (2007). Personnel Management: Issues and Concepts: Oxford University Press.

Hagfiz, V. (2006).Tips and Tactics on conflict management in the work place: www.businesssuccessful.net

Kerka, S. (1999). Career development of diverse population. *Eric Digest,* I – Divest No. 1991-7.

Kroma, S. (2009). The Dynamics of Quality Assurance: The publication of University of Nairobi, Kenya.

Longe, J. (2007). An investigation into the Psychology of conflict: A Journal of information science; Cambridge University, U.K.

Luiton, H. (2006). The Dynamics of Quality Assurance Criteria: A Handbook on Work Control and Auding: University of Accra.

Mensah, A. (2009). Work ethics: A work Guide in industrial and Educational Institution Accra University Press.

NBTE (2014), Universal Basic Education Annual Report Produced by Research and Statistics of the National Board for Technical Education.

Okeke-James, N. J., Igbokwe, I. C., Anyanwu, J. A., & Ogbo, R. N. (2020). Quality assurance in secondary education for socio-economic development in Nigeria. *European Journal of Education Studies, 7*(5), 175-185.

Simon, Y. (2007). Informal Groups and Leadership Types in the work place; Cambridge University Press.

UNESCO, (2008) 6th Annual Report (2006– 2007). Education Newsletter, Hambury.

UNESCO, (2012) 3rd Annual Report (2000 – 2001). Education Newsletter, Hambury.

WAEC (2017). West African Examination Council Chief Examiner's Report, May/June 2017 Chief Examiners (Nigeria).

Walter, F. (2006). Patterns of teaching and classroom management; the push press, Kigali Institute of Technology.

Whitehead, T.A. (2006). Quality assurance in the meat processing industry; Oxford university press.