# Effect of Teaching and Learning Resources on Students Academic Performance at Selected Schools Kagogo Sector, Burera District/Rlyanda

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Abstract:- This study has been carried out to assess" the effect of teaching and learning resources on students' academic performance with case of selected schools in Burera district in Rwanda 2019-2022. To achieve the objectives of the study, source of data was both primary and secondary data, questionnaire and observation were the techniques to be employed to obtain the primary data and second data. The researchers have been used purposive sampling in conformity to the realization of the objectives of the study. The suggested respondents were teachers, school administrators and students both in GS GITARE II and GS KAYENZI. Therefore, the sample size for students were 92 from both GS KAYENZI and GS GITARE II while sample size from teachers and school administrators were 29 with total of 121 respondents. For collecting data researcher organized well-structured questionnaires. Data has been edited and sorted for the next stage. The data have been presented in statistical tables, with frequencies and percentage for classification of responses by statistical package of social science (SPSS) for easier analysis interpretation. Researcher has used SPSS to analysis and interpretation. Research has used SPSS to analyze or examine the relationship between the variables under study. The results found out the in the table 11 indicated that 99.9% of the variation in the dependent variables (students' academic performance) can be explained by physical resources means that there is positive significance effect on students' academic performance. The table 14 indicated that 99.3 % of the variation in dependent variables (students' academic working performance) can be explained by human resources means that there is positive significance effect on students' academic performance. The table 17 indicated that 99.4% variable in dependent variable (students' academic performance. The table 17:) indicated that 99.4% variable dependent variable (students' academic performance) can be explained by financial resources students' academic performance. Promoted the objectives of this research because the researcher come up with the conclusion that there is significance relationship between teaching and learning resources on students' performance.

## I. INTRODUCTION

The resources and school materials that are predicted to be used in learning and teaching have been observed as a powerful strategy to bring about efficient acquiring of expected knowledge and skills. The importance of quality and adequate usage of school materials in teaching and learning process can occur through their effective utilization during classroom teaching practices. According to Coombs (1970), Education consists of two components, inputs and out puts. Inputs consists human and materials resources and out puts are the goals and outcomes of educational process. Both the inputs and outputs from a dynamic organic whole and if one wants to investigate and assess the education system in order to improve its performance, effects of one component on the other must be examined however assessment practices continue provoking reluctant attitudes in students, teachers may hardly approach this process differently, which may eventually lead learners either to succeed, fail or give up on the learning process (Green, 2013). Efficient use of school learning resources provides efforts of good working for assigned school tasks that improve effective academic performance for learners. (Samuel Kai Watch. B Reynolds, 2017) argued that the school resources have many importance especially by using computers technology (example: blogs, wikis) to facilitate teaching and learning, where students both primary and secondary and tertiary levels with collective tools served dual purposes that empower students' success in different learning domains. Here google docs as an online Microsoft office like interface enables milt uses to easily to share different documents that make learning easy according to (Maicibi, 2003) all institutions are comprised by human resources (workers) and materials resources (tools) by which effective manipulation should be rely on especially when these resources quality and quantity to match the organization goals and objectives. Furthermore, every institution is engaged to provide the qualitative human resource.

(Elizabeth Luttah Waseka& Enose M.W. Simatwa, 2016) indicated that students at school require specific facilities and optimum condition that increase the efforts of learning process, where there are enough textbooks, students' rooms, and recreation facilities that prompt learners to attend schools and share together the school lessons help them to enhance their learning goals and objectives of success. Afolabi and Adeleke (2010) indicated non availability, un

sufficient and non-utilization of learning and teaching resources to teach as a result of teachers' poor skilled knowledge which is also responsible for the use of lecture methods in teaching mathematics. They recommended that both students, teachers, parents, government have to focus on providing the quantity and quality required learning materials that are crucial for enhancing feasibility of school performance.

(Prakashsirinivasan,2012) revealed that the school resources including library is a growing organism and a heart of school where students use different books and magazines, means that it supplements school study in addition to the textbooks. It is an area where collection, preservation and dissemination of knowledge to school students. In a move away from a text based paradigm, school librarians are argued to focus on how students learn about interact with create and assess print, digital, media and visual literacies.

(Nancy Pichering Thomas. Sherry R. Crow and Lori L. Franklin, 2011) indicated that school library provide contributions to education environment of the school through reading promotion and direct programs of instruction. Where students instructed in using, evaluating and producing information ideas through active use of a broad range of appropriate tools, resources and information technology. Also learning resources like library providing access to materials in all formats, including up to date, high quality, varied literature to develop and strengthen a love of reading and teaching. Resources are paramount and helpful tools required for teaching and learning of school subjects to promote teachers' efficacy encourage improve of students' performance.

According to (Abraham Maslow, 1908-1970, & Benjamin Broom, 1913-1999) reported by

Francis (2017) revealed that purpose of education was to help each student to research her /his full potential which is called self -actualization about basic needs such as food, shelter, safety, love and belongingness base on academic basic needs the students need different materials such as books, chalks, boards, chairs desks, laboratories and libraries which are helpful in usual learning and teaching process to acquire expected competences, knowledge and skills. (B. Bloom,1956) created original taxonomy and categorized educational objectives into three domains like cognitive as knowledge and development of intellectual skills, affective as values, emotions or attitudes associated with learning, psychomotor as addressing physical skills and actions set six major categories in the cognitive domains such as evaluation, synthesis analysis, application, comprehension and knowledge.



Fig 1 Bloom 2001) Revised Taxonomy

Remembering as listening and retrieving, understanding as explaining ideas or concepts, applying as using information in another familiar situation implementing, analyzing as breaking information into parts to explore understanding sand relationships comparing, evaluating as justifying a decision or course of action, creating as generating ideas/ products or ways of viewing things and creating as generating new ideas. (B. Bloom2001) revealed that mastery learning of introduced in hierarchical list of learning categories and fulfill the tasks of assessment towards required skills, are required learning resources that favor effectiveness delivering of content and help students to involve actively in learning process, through research, experiment conduct and higher comprehensive of subjects taught to fulfill educational subjective. Through learning and teaching resources like textbooks - based curriculum to thematic units teachers interested in improving their instruction can use taxonomy table (which is reproduced on the inside front cover of the revised taxonomy) to review their plans to assure that their objectives, activities and assessments are properly aligned, ones in which students were involved in range of activities and a range of topics and issues students engaged in inquiries teachers collaborate with each other and their students to explore and negotiate curriculum as inquiry

(Westbrook J, Durrani N, Brown R, Orr D, Pryor J, Boddy J, Salvi F,2013) indicated the severe lack of textbooks and teaching and learning materials and their poor quality as overriding impediments to student learning. When there were enough resources, teachers also needed specific training in how to make full use of them. (Nakabugo et al.2018) indicated that while teachers were all focusing on elaborating their learning performance. Students work as play wright, designer, actor and director of their individual or small group performance, also students complete a written reflection about their work and discoveries in school assignment that help them to elaborate their competence, skills and knowledge.

(Leeght Anderson and Donald R. Glover 2017) indicated that teachers stand for promoting student ways of thinking about school subject, because when students develop the ability to look more deeply at their work or progress to reflect on it and assess it permit the learners to engage in higher level of skills such as critical thinking and problem solving which boost up their learning performance.

Teachers as school human resources must move away from traditional methods of starting class practices, where should reinforces begin class with students in teams, the students always have a group to belong to which allows for greater connection among participants as people whom they feel comfortable and accepted as crucial step in creating ideal learning environment hence develop their working performance

# ➤ Effects Physical Teaching and Learning Resources on Students' Academic Performance

According to (T. Cerratto pargmand I. Janke, 2019) revealed that physical materials such as computers, books and laboratory are very paramount to generate knowledge, favor discussion and reflect on mutual configuration between education practices, information dav communication technologies (ICTs) are both one of materials and needed tools that help learners to enhance required cognitive and competency at school compound. The acceleration pace of technological innovation challenges as to constitute sensible and sensitive accounts on how digital materials are altering established understandings of learning and teaching (Roger Saija, 2019) indicated that learning and teaching materials like maps, drawings and registers serves as interface between students' minds and cultural memory that improve student's literacy skills which required to enhance expected academic performance. (Marafouris, 2013) said that physical materials in learning and teaching process play great role where by it triggers students thought and mental development hence higher education performance, physical learning materials like cultural tools symbolic technologies, are integrated into students thinking and communication. Greer, White, Zeegers &Barnes, 2017) indicated that using digital materials specifically cloud services, internet services , email , tablets , desktops , laptops mobile phones interactive white boards and their physical condition in terms of interface functionality and affordance as well as charger as cables notebooks, books, posters and furniture contribute to visible problem solving and adaptive teaching practice where students and teachers enhance managerial communication in the school hence competency development towards required academic competencies.

Aware of, for example, us of group work, they were hampered in their ability to fully implement this because of the lack of resources, so that group sizes of 12 or 20 were necessary to 'share' resources as in study I Uganda providing sufficient numbers with class sizes of over 150 was simply not possible. Thirteen studies, eight of them of mixed effectiveness, the other five reporting less effective practices, stated that having large numbers of children in cramped classroom, often with immovable desks, mitigated against group work, with even pair work creating unacceptable and un workable noise levels and reducing the amount of time teachers had for making work.

#### II. LITERATURE REVIEW

# ➤ Concept of Teaching and Learning Resources

James Arthur, Tereza Grainger and David .W, 2006) argued that teaching and learning school materials are the school learning tools that are important to students to learn effectively which are, computers, tape records, videos, pictures, photos, graphs, maps diagrams for more open ended learning where students found their success level of performance and expected profits from some more differentiated follow up reflection in order to farther develop expected skills and knowledge (Louis Cohen, luorens M.Keit Morsoni Wyse and Dominic,2010)indicated that ICT as teaching and learning resources in terms of both hardware and software with varieties of other learning facilities enables students to participate actively in learning process among devices, tools are audiovisual photocopies, telephones, fax, machines, television, and computers. argued school learning and teaching resources including school play spaces and recreational facilities are the among ones that stimulate and reinforce students to learn and to acquire required competencies for future adaptation. Furthermore, that help teachers that to present their lessons content clearly and send Abdu Raheem (2014) argued that teaching and learning resources are such used by teachers to provide explanations and make learning of subject matter comprehended by learners during teaching and learning process.

(Tatiana Samsonowa, 2012) stated that is degree of accuracy, effectiveness and efficiency use of available opportunities effectiveness as an indicator of the degree of a goal achievement, and efficiency as an indicator of the resources that were consumed to reach the level of perfect applicability. In her work (2012), she uses the term "performance" as the degree of goal achievement of an institution rather than of personal.

# Fiffects of Human Resources Teaching and Learning Resources on Students' Academic Performance

David A. Crespy 2018) argued that students with help of their teachers learn to be creative and acquire disciplined improvisation when they invoke, apply and adapt activities and routine in the classroom to respond to their learning needs and construction of new knowledge. The key aspect of creative teaching and learning is the structuring of moments of collaborative emergence the improvised interplay between students and teachers in the classroom to improve students' performance.(Kathryn Dawson, 2018) revealed that students as human resources themselves , served as key "prior-knowledge "resources within the course because they take time to discuss about subject's content by sharing different ideas in intension of attaining the solution of particular subjects' issues and participate in additional interview about their experience in the courses which

# Effects of Financial Teaching and Learning Resources on Students' Academic Performance

According to (OECD, 2017) argued that the school system that lacks required financial quality teachers and school leaders and affected by inadequate funds to ensure enough infrastructures and fail to provide pother school equipment like books and sitting desks for learners will have more difficulties to promote quality of education. If the students lacked the school equipment like books notebooks to sustain their studies like school fees and other related required materials for effective learning due to insufficient funds the overall of school funding does not seen to be a key factor of their success of high performance (Stephane Domeron, 2017) indicated that the top down delivering of content through formal class may be challenged, distance tutoring requires new forms new forms of skills for reaching/stewarding group work and discussion still need to be facilitated by finance through buying different school equipment, like instructional videos machines, viewing computers that encourage students' knowledge and skills acquisition for that support academic performance. (L li etal, 2018) revealed that to ensure education development that elaborate students' academic performance and teachers performance and teachers perfect working, the government / educational department, has to improve fundamental capacity building of vocational education bases with advanced equipment, high quality of management of school budget and providing funds to involve in teaching and learning, training, qualifications and productions that increase students mental and physical capacity to develop their academic performance.

# III. THE STUDY

#### > Study Population

In fact there are a big number of students and teachers at GS GITARE II and GS KAYENZI where total number of students is 1180 and total number of teaching staff is 41 including the head teacher. It is difficult to take all in research investigation which lead to using random sampling procedures. According to Grinnel et al (1993) the population study is the totality of persons or objects with in a study concerned. However, the sample size will be determined by using the formula of Cochran W.G. (1963)

$$n = \frac{N}{1 + N * (e)^2}$$

- n=sample size
- N= total population
- e= the desired margin which is equal to 0.1

Then for students 
$$n = \frac{1180}{1 + 1180 * (0.1)2} = 92$$

While teachers staffs 
$$n = \frac{41}{1+41 * (0.1)2} = 29$$

Therefore the sample size for the students used as respondents are 92 from the students of G.S Gitare II and GS Kayenzi while sample size for teachers have been used

are 29from other teachers of GS Gitare II and GS Kayenzi the total respondents used are 121 respondents.

## Sampling Techniques

Universal sampling is one in which the person who is selecting the sample tries to capture data thought it, depending on his/her opinion or purpose, thus being the representation subjective (Paula, 2001). Universal sampling technic was used concerning the population of the study which took GS Gitare II and GS Kayenzi as case study

Table 1 Sample Techniques

Respondents	Males	Female	Total	Sample Technics			
Students	56	36	92	Simple			
				random			
Teachers	18	11	29	Simple			
				random			

Source: Primary data October, 2023

#### ➤ Research Instrument

The instruments that have been used for the purpose of the study are questionnaires and interviews, the questions for the people have been used in accordance with the research work and the research questions and have been framed in a way that it would not be misunderstood by the respondents.

# Primary Sources of Data

Primary data for the study have been collected from original source from the school staffs and students of GS Gitare II and GS Kayenzi, containing both teachers and students whom have been asked way of interview. The structured questionnaires have been used by researcher and observation was paramount to find different required data also these have been facilitated to obtain primary data from

#### Questionnaires

The researcher has been used the structure questionnaires because it was convenient for respondent who do not have time.in addition, the researcher has been used an open ended question for giving the space explanation to the respondents where there is information that have been not mentioned in the questionnaires. The closed ended questions were there and were structured on four points of scare.

# ➤ Interview Guide

Interview is a conversation between two or more people where interviewer asked questions to interviewee. This is helpful in obtaining deeply views of teachers, administrators and students related to the issue. Interview involves face to face discussions between the research and respondents therefore it gives a researcher an opportunity to penetrate further and keep the responses on the issue of interest. This method is a complement to the questionnaires because it helps to collect the information that questionnaire cannot collect.

#### > Interview

Observation is the way of gathering information by observing, watching behaviors or noting physical characteristics in the natural settings. Observation has a great important role in data collection because it is used frequently in the time of teaching, assessing and giving learners work in their daily school activities. All the above instruments help us to collect information that favored us to set out the solutions to deal with the problem.

# Secondary Sources

During the collection for secondary data, a researcher read the different documents related to the research purpose those are concerning to the school report describing the annual students working performance on school students' results/ reports where all students at particular school has a file indicating his/ her students' teachers with help Head teachers' school. The information that will be gathered not only for immediately study at hand, but also for some other purposes. The data will be gotten from textbooks websites, journals, newspapers, articles, thesis relevant to the study, Magazines, reports and electronic libraries related with link between students' performance.

# IV. RESULTS AND DISCUSSIONS

Table 2 Model Summary of Both Physical Resources, Human Resources and Financial Resources on Students' Academic Performance

 Model
 R
 R Square
 Adjusted R Square
 Std. Error of the Estimate

 1
 1.000a
 .999
 .999
 .04176

 a. Predictors: (Constant), F.R, P.R, H.R

The table 2: indicated that 100% variation in dependent variable (students' academic performance) can be explained by physical resources, human resources and financial resources.

Table 3 Analysis of Variance of Physical Resources Human Resources and Financial Resources on Students'

Academic Performance

ANOVA								
	Model	Sum of Squares	df	Mean Square	F	Sig.		
	Regression	275.356	3	91.785	52622.744	$.000^{b}$		
1	Residual	.204	117	.002				
	Total	275.560	120					
a. Dependent Variable: S.A.P								
b. Predictors: (Constant), F.R, P.R, H.R								

The table 3 indicated that there is significance relationship between physical resources, human resources and financial resources in Rwandan government aided schools This implies that null hypothesis is rejected while alternative hypothesis is accepted. Here there is significance relationship between physical resources, human resources and financial resources and students' academic performance in Rwandan government aided schools.

Table 4 Analysis of Coefficient of Physical Resources, Human Resources and Financial Resources on Students' Academic Performance

_	Statement Temperature								
	Coefficients								
	Model Unstandardi Coefficient			Standardized Coefficients	t	Sig.			
		В	Std.	Beta					
			Error						
1	(Constant)	010	.007		-1.372	.173			
	P.R	.757	.019	.759	39.915	.000			
	H.R	113	.030	114	-3.761	.000			
	F.R	.360	.030	.356	12.121	.000			
	a. Dependent Variable: S.A.P								

The table 4 indicated that there are positive effects between physical resources, human resources and financial resources on students' academic performance. This implies that one unit of change in independent variables (physical resources, human resources and financial resources) decrease dependent variable (students' academic performance) by 360

## V. SUMMARY OF FINDINGS

Indicated that there are positive and significance effects of financial resources on student academic performance in government aided schools (R=0.994) and P value (0.00). Means that null of hypothesis was rejected and alternative hypothesis were accepted this is similar to the study of (OEECD, 2017) indicated that if students lacked the school equipment like books to sustain their studies , like school fees , and other related required materials for effective learning due to insufficient funds , the overall of school funding does not seen to be a key factor for their success of high performance.

The findings from the objective number two which called to analyze the effect of physical resources on students' academic performance in Rwandan government aided schools. (R=0.996) and P value (0.00) as indicated by the study null hypothesis was rejected while alternative hypothesis was accepted. This means that physical resources affect students' academic performance this finding have similarity of the research made by (Roger Saija, 2019) indicated that learning and teaching materials like map, drawings and registers serves as interface between students' minds and cultural memory that improve the students' literacy, skills which required to enhance expected academic performance. (Marafouris, 2013) said that physical materials in learning and teaching process play great role where by it triggers students thought and mental development hence higher educational performance. Physical learning materials like cultural tools, symbolic technologies, are integrated into students thinking and communication.

(Greer, White, Zeegers& Barnes, 2017) indicated that using digital materials specifically cloud services, e-mail, tablets, desktops, mobile phones, interactive whiteboards and their physical conditions in terms of interface functionality and affordances as well as charges, cables, notebooks, posters and furniture contribute to visible problem solving and adaptive teaching practice where students and

teachers enhance managerial communication in the school hence competency development towards required academic competences.

The findings from the objective number three which called to success the effect of human resource on students' academic performance at selected schools in Burera district the study concluded that there are positive and significant effects of human resources in Rwandan

Government aided schools .(R=.993) and P value (0.00) as indicated by the study null hypothesis was rejected while alternative hypothesis was accepted by this means that human resources affect students' academic performance, this findings have similarity of the research made by (David A. A. crespy, 2018) argued that students with help of their teachers learn to be creative and acquire disciplined improvisation when they invoke, apply and adapt activities and routine in the classroom to respond to their learning needs and construction of new knowledge. The key aspect of creative teaching and learning is the structuring of moments of collaborative emergence the improvised interplay between students and teachers in the classroom to improve students' performance. (Kathryn Dawson, 2018) revealed that students as human resources themselves served as key prior knowledge resources within the course because they take time to discuss about subjects' content by sharing different ideas in intension of attaining the solution of particular subject issues and participate in additional interview about their experience in the courses which all focusing on elaborating their learning performance.

# VI. CONCLUSION

Basing on the findings of the study, the effects of teaching and learning resources on students' academic performance in Rwandan schools especially in GS Gitare II and GS Kayenzi, in Burera district since none of hypothesis tested negatively means were rejected and alternatives ones were accepted. Promoted the objectives of this research because the researcher come up with the conclusion that there is significance relationship between teaching and learning resources and students' academic performance as indicated by other researchers. This research will let government, school managers to understand the role of teachers' motivation on their working performance based on provided sufficient school materials

(T. Cerrato Pargman, 2019) indicated that learning and teaching materials as physical resources have great impact in the classroom. These new material conditions shape the relationships between the learners and teachers ultimately distribute roles and the power in classroom. Through teachers and students' desktops computers, the projectors and the white boards where the teachers lesson and students' homework and presentations are shared during the class that reinforce students' courage and materials in learning contexts towards required academic performance. (M, Landou, 2019) indicated that perfect learning at school students required different physical learning materials through which they rely in reflection information gaining.

#### RECOMMENDATION

As this study is academic and also have revealed many important findings in academic field, government and partners of education system were recommended to equally sharing the school equipment because referring in boarding schools the school equipment are enough ratio with the school staffs and learners available while in twelve years where this research was conducted the school the school equipment are not matching with number of school staffs and available learners that indicating the inequality and careless on ministry of education in Rwanda, that why this is advocacy to cater for these issues and that will increase equal chance about teachers working conditions for both Rwandan teachers with no consideration of their different working schools

#### REFERENCES

- [1]. (Samuel kai Wah Chu. Rebecca B. Reynolds Nicole J. Tavares. Michele Notari, Celina Wing Yi lee,2017) 21 st century skills development through inquiry-based learning from theory to practice, Singapore, ISBN 978-981-10-2481-8 (e-book)
- [2]. (Tony Read,2015) where have all the text books gone? Towards sustainable provision of teaching and learning materials in sub- Saharan Africa, Washington DC 20433
- [3]. (Leight Anderson and Donald R. Glover2017) building character community and growth with mind set in physical education, Washington DC ISBN:978-1-4925-3668
- [4]. Taylor& Francis (2017) Dynamic group piano teaching. New York, NY20017.
- [5]. Roberta Heale<sup>1</sup> Alison Twy cross<sup>2</sup>(2015) validity and reliability in quantitative study. Evid based Nars July 2015/volume 18 number 3.
- [6]. (Hamed Taherdoost, 2016) validity and reliability research instruments, how to test the validity of questionnaire, survey in a research, University of Canada west, DOI:10. 2139/ssm3205040. https://www.Research.gate.Net/publication/319998004.
- [7]. (Alan Crawford, Wendy Saul, Samuel R. Mathews and James Makinster, 2005) Teaching and learning strategies for the thinking classroom, New York, NY 10019.
- [8]. (Judit organanyi-Gajdos, 2016), Teachers professional development on problem solving theory and practice for teachers and teachers' educators, Rotterdam, ISBN:978-94-6300-711-5(e-book)
- [9]. (Richard M. Felder Rebecca Brent, 2016), teaching and learning STEM a practical guide, San Francisco, CA. 99104-4594, (www. Jossey bass.com.)
- [10]. (VVOB,2008), school management, training Manuel for secondary school Head teachers. Kigali. MCDC.
- [11]. West Brook J. Durrani M. Brown F. Orr D, Pryor J, J.Boddy, Salvi F (2013), pedagogy, curriculum, teaching practices and teachers education in developing countries, Landon, ISBN:978-1-907345-64-7, http://eppi:ioe.ac. UK/

- [12]. Abdel Raheem, A. Y. and Al-Rabani, A. H. (2005). Utilization and benefits of instructional media in teaching social studies courses. Malaysian Online Journal of Instruction Technology, 2(1), 1-
- [13]. Adeogum, A. A. (2001). The principal and the financial management of public secondary schools in Osu State. Journal of Educational System and Development. 5(1): 1 10.
- [14]. Matseliso, Moshoeschoe Chadringwa (2013). Information, knowledge and the gatekeepers. The One Hundred and ThirtySecond Inaugural Lecture delivered. Lesotho.
- [15]. Benell, P. and Mukyanuzi, F. (2005). Is there teacher motivation crisis in Tanzania? A report commissioned by DFID. Dar es Salaam, Tanzania.
- [16]. Blair, L. (1998). Constructing knowledge by design. Southwest Educational Development Laboratory News, 10(4), 3-8.
- [17]. Kerr, D. (2003). Citizen education in England: The making of a new subject. Online journal for social science education. Retrieved on 7th January, 2003 from www.sowionline.de/journal/2003/england\_kerr.htm.
- [18]. Kimago, H. R. (2011). Study Guide for Med APPS Course. Dar es Salaam: University of Dar es Salaam.
- [19]. Willms, J. D. (2000). Standards of care: Investments to improve children's educational outcomes in Latin America. Paper presented at the "Year 2000 Conference of Early Childhood Development" Washington, D.C., World Bank.
- [20]. Young, E., Green, H. A., Roehrich -Patrick, L., Joseph, L, and Gibson, T. (2003). Do K-12 School Facilities Affect Education Outcomes? Tennessee: Tennessee Advisory commission on Intergovernmental Relations.
- [21]. (OECD,2017) The funding of school education, connecting resources and learning, OECD publishing Paris, ISSN2413-3841.