



Effect of ICT-based Instruction on the Achievement of Social Studies in College of Education in Bauchi state

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ABSTRACT

This study examined the effect of ICT-based Instruction on the achievement of social studies among NCE II students in Adamu Tafawa Balewa College of Education, Kangere, Bauchi State. ICT provides better information to present content, which helps learners in concentration and better understanding and long term retention of information, which is not possible otherwise. The researcher in this study aspires to measure the effectiveness of the ICT based teaching in terms of student's achievement in social studies. By analyzing the hypothesis, it was found that Teaching with ICT is better than that of traditional approach so far as achievement in social studies is concerned. Therefore, ICT-based teaching is beneficial and it should be adopted by the teachers so as to increase the achievement in social studies among the students. The study adopted the quasi experimental design. This is because the design does not allow the use of randomization of the population of the study. Specifically, the non-equivalent group test-posttest design was used in which intact classes were chosen for both experiment and control groups respectively. The researcher administers pretest to both groups in order to verify the presence or absence of any difference between the two groups that is the experimental and control. The experimental group would use information technology based instructional teaching strategy, while the control group would use the conventional method of teaching. Thereafter, the two groups experimental and control would be subjected to pre-test and posttest to ascertain the effect of information and communication technology based instructional strategy on achievement of social studies students. Based on the findings espoused above, it was concluded that: the use of ICT-based instruction in the teaching of social studies enhanced the achievement of students in social studies. In view of the conclusion drawn from the study, it was recommended among others that there is outright need for the incorporation of modern ICT-based instruction into the teaching and learning of social studies in teacher training institutions. Experts in social studies should collaborate with IT-Finns to help produce social studies course ware that would simplify teachers' challenges in producing a well-structured ICT-based lesson.

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INTRODUCTION

Education globally has been identified as bedrock for sustainable national development. It is a tool used for the achievement of any reformation drive, which propels a nation to

acquire a status of global recognition. This education has undoubtedly turned out to be one of the most important needs for the well-being of any society and a powerful instrument for social progress. Thus, retinues of some sorts of super

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structures like good schools, efficient teachers/professionals; effective and contemporary teaching techniques must be put in place for an individual or a nation to attain a continuum of professional growth. To enhance this educational epoch-making instruction in schools, Olakulehin (2007) observed that “there has to be a functional teaching strategy which will provide teachers with the skills and professional abilities to motivate learners to learn assist them in acquiring the right type of understandings, concepts, values and attitudes. This in essence will make them productive members of the society in which they are born, grow and live.

In the face of the social, political and economic decay that has characterized the Nigerian society generally and education in particular over the years, one may wonder how information technology can occupy a position in the teaching and learning of social studies, to expose learners to the intricacies perpetrating the Nigerian society? It is relevant, in view of the penetration of IT in these emerging global reforms and due to its dynamic, interactive, flexibility and emerging contents. According to Kwache (2007:2), “IT has made impacts on the quality and quantity of teaching, learning and research in the traditional and/or distance educational institutions using it”. In the words of Yusuf (2005) cited in Kwache (2007:2): Information technology provides real opportunities for individualized Instruction. It has the potentials to accelerate, enrich and deepen skills; to motivate and engage students in learning; to help relate school experiences to work practices; to help create economic viability for tomorrow’s workers; contribute to radical changes in schools; to strengthen teaching and to provide opportunities for connection between the school and the world. It has brought about rapid technological, social, political, and economic transformation, which has eventuated in a network society organized around IT.

Considering IT as crucial allies of development process, Nigerian educational policy makers and social planners, in recognition of its potentials for leveraging existing social stratifications, have placed premium on the development and exploitation of the sector. This is further reflected in the emphatic resonance in

the National Policy on Education N.P.E (2004) when the federal government maintained in section 4 (m) that: In recognition of the prominent role of Information and Technology in advancing knowledge and skills necessary for functioning in the modern world, there is an urgent need to integrate information and communication technology (ICT) into education in Nigeria. That government shall provide necessary Infrastructure and training for integration of I.T in school system in Recognition of the role of I.T in advancing knowledge and skills in the modern world.

Social studies being a product of the society and a conventional school subject in the school system has been described by Okam (1998) in Oyebola (2007) as “an interdisciplinary approach to the study of human beings in group interrelationship with both their social and physical environments”. More emphatically, social studies underscore the preparation and mobilization of learners for the purpose of enabling them cultivate an awareness and understanding that would transform them into citizens with skills, competencies, moral values and reasoned judgment. This will enable them to effectively live, interact, interrelate, and contribute positively to the economic, social, political and cultural development of their societies.

It is important to note that the National Policy on Education (NPE) gave a prominent role to social studies within the school curriculum as a core subject area, which all pupils in primary and secondary schools cannot dispense with in their learning activities. This is perhaps, in recognition of the potentials of social studies even at tertiary levels, to inculcate the right kind of skills and virtues through unified and integrated disciplinary study of man. No wonder Oyebola (2007) sees it as “an eclectic distillation of many disciplines including history, political science, geography, anthropology, psychology, economics, religious studies, agricultural science, sociology, civics, philosophy, medicine, and technology”. He stressed further that “the epistemology of social studies is largely conceptualized on the theory of Integration of related subjects that stressed in effect, the need to make connections within these

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disciplines towards understanding of man and his Interaction with his total environment”.

Obviously, this assertion calls for the optimum use of information technology, which has a rich content and a wide coverage to accommodate the multidimensional contents in the teaching and learning of social studies at all Colleges of Education. In the submissions of Agyeman (2007), he maintained that the acquisition of IT skills and capabilities have recently been made mandatory as part of the minimum standard for teacher education at the Nigerian Certificate in Education and first degree in university level. Also, some universities in Nigeria have made I.T skills a requirement for continuing and graduating student.

For the above reasons and others, Agyeman further reports that the National University Commission (NUC), the government agency responsible for registering and regulating universities, has prescribed Personal Computer (PC) ownership for universities as follows: one to every four students; one PC to every two lecturers below the grade of lecturer 1; one PC per senior lecturer; and one note book per professor/reader. He maintained that, while some universities like the Nnamdi Azikiwe University have achieved a better ratio for their faculty, the same cannot be said for the PC-to-student ratio. However, some universities have made giant stride in Campus-Wide Area Networking (CAN) and e-learning course deliveries.

The Obafemi Awolowo University (OAU) boasts of having the best- developed IT system in the country with its own V-SAT access to the Internet and a campus-wide intranet. OAU has embarked on the progressive application of IT to all its functions and services-academic, research and administration. The OAU has more than 6,000 users on more than 1,000 computers distributed in 15 computer laboratories across the campus. The University of Jos (UNIJOS) today is blazing the trail for content development and e-learning in addition to campus-networking, in collaboration with AVOIR (African Virtual Open Initiative and Resources) and the Carnegie Corporation (USA), to develop e-learning program for several departments. The National Open University of Nigeria. (NOUN), established in 2002, is not left behind in this trend of

development. It dreams to establish more study centers not only in each of the 36 states of the federation but also at local government areas, in order to make tertiary education available to all citizens. The teacher education is not equally neglected, as they have been impacted by the current IT revolution, to equip teachers and students with IT skills and its applicability to facilitate teaching-learning process. Therefore, the question that comes to mind at this stage is that; with the emergence of IT innovations in other institutions of learning, to what extent can we justify the effects of IT- based instruction in Colleges of Education (COEs) in Bauchi state, precisely in the teaching and learning of social studies? This is where the thrust of this research revolves.

Statement of the Problem

ICT-based instruction in contemporary education has the potentials to accelerate, enrich and deepen skills, motivate and engage students in learning and provide opportunities for connection between the school and the world of globalisation. It has been observed that since the introduction of modern ICT- based instruction into modern teaching and learning process, social studies education is yet to comply fervently with this trend of teaching. This ugly development is owing to the fact that most instructors and students in social studies are not computer literate. In cases where the teachers are literate in computer, they find it very difficult and challenging to alter their traditional teaching strategies to successfully commit their time and resources in preparing, organising and presenting a fir-based instruction. On the part of students, most of them as observed are not conversant with this modern trend of teaching. They are dogmatic to the non-ICT-based instruction in teaching which is fast becoming an out modelled practice of instruction owing to the tide of globalisation. In other words, teachers and students in social studies see ICT-based instruction as cumbersome, time consuming, expensive and difficult to adopt.

These obvious challenges in the perception of the researcher, might deprive the teachers and students from interacting with modern teaching techniques and thus, cannot

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compete favourably with modern trends of teaching and learning which will make them relevant in this modern society of information explosion. Often times, the researcher wonders why these abnormalities exist in social studies. Perhaps, they are located in places where social infrastructure and other Information and Communication Technology facilities are not available to some extent. It directed the focus of this research, which does not stand to condemn in totality other non ICT-based techniques in social studies against the much cherished ICT-based instruction, but to make students necessarily justify the relevance and the vital need for ICT-based instruction in social studies particularly in this globalised world.

Objectives of the Study

Specifically, the objectives of the study are to;

1. Determine the effect of ICT-based instruction on achievement of social studies students in ATB-COE Kangere Bauchi State.
2. Find out the mean achievement score of ATB-COE Kangere students of both control and experimental group in social studies before intervention.
3. Determine the mean achievement scores of ATB-COE Kangere students in experimental group based on gender.

Research Questions

The following are the research questions formulated to guide the study;

1. What is the effect of ICT-based instructions on achievement of social studies students in ATB College of Education Kangere, Bauchi?
2. What is the mean achievement score of ATB-COE Kangere students of both control and experimental group in social studies before intervention?
3. What is the mean achievement score of COE students in experimental group based on gender?

METHODOLOGY

The researcher adopted the quasi experimental design. This is because the design does not allow the use of randomization of the

population of the study (Awotunde & Ugodulunwa, 2004). Specifically, the non-equivalent group pretest-posttest design was used in which intact classes were chosen for both experimental and control groups respectively. The researcher administers pretest to both groups in order to verify the presence or absence of any difference between the two groups that is the experimental and control. The experimental group was taught using ICT-based instructional teaching strategy, while the control group was taught using the conventional method of teaching. Thereafter, the two groups experimental and control would be subjected to pre-test and posttest to ascertain the effect of information technology based instructional teaching strategy on tertiary institution social studies students' achievement.

The entire population for this study consists of all NCE Two and Three social studies students of ATB- CoE Kangere. The numbered that constituted the population was 1049 and the study had a sample of 120 students drawn from the combination of NCE two and three social studies students. The simple random sampling technique was used to select the sample. The essence of sampling is to enable the researcher apply ICT-based instruction on the sample. The controlled group was taught using the traditional teaching techniques in social studies as mentioned earlier, while the experimental group was taught using the prepared ICT-based instruction. The instrument used for collecting data in this study was a constructed performance test titled Social Studies Students Information Technology Performance Test (SSITPT). Retinues of experts were drawn from Social Studies Department, Faculty of Education, Ahmadu Bello University, Zaria assisted in vetting the items on the Social studies Students Information Technology Performance Test (SSITPT) to determine its face validity. A reliability coefficient of 0.95 was found. This reliability coefficient in the perception of the researcher is moderately satisfactory for use in this study. Two research assistants were used to ensure consistent supply of power to the digital projector, laptop and other equipments used. They helped in the administration, retrieval and supervision of the SSITPT. After the raw scores

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of students were collated and computed, the SPSS version 16 was used to calculate the t-test statistic in order to substantiate the statistical significance of the mean performance of students.

RESULTS

Research question one: What is the effect of Information Technology based instructions on achievement of social studies students in ATB College of Education Kangere, Bauchi?

The response to this question is in the affirmative occasioned by the result of the mean

Table 1: t-test analysis of effect of ICT-based instructions on achievement of social studies students in both experimental and controlled groups

Groups	No	Mean	SD	DF	t-cal	t-ctrl	p-value
Experimental	60	60.9	10.5408	118	3.78	1.98	0.00024
Controlled	60	53.82	9.960076				

Source: Field experiment 2011.

From table .1 above, it could be seen and explored the existence of any significant difference regarding students taught with ICT and their counterparts taught with traditional techniques in social studies. Based on the general picture demonstrated, the t-calculated is 3.78 while the t-critical placed at 0.05% level of significance is 1.98 at the degree of freedom of 118.

Research question two: What is the mean achievement score of ATB-COE Kangere students of both control and experimental groups in social studies before intervention?

The achievements that could be deduced from the experiment is in the mean

expression on table 1, it showed descriptively that the mean achievement of students subjected to ICT-based instruction was higher than the mean scores of students taught with traditional technique i.e. (60.9 > 53.82). This analysis indisputably affirmed the quantum of the difference between the variables in research question one. The positive response to this research question was justified on the pedigree that ICT-based instruction enhances the achievement of students in social studies better than the traditional techniques.

difference of their achievements. In table 2, it shows that the mean scores from the subjects that constituted the experimental group was 63.87 while the mean scores of the controlled group was 58.23. This implies that (63.87 > 58.23). The interpretation to this numeric expression is that the experimental group subjected to MS power point performed higher than their counterparts subjected to MS word. Thus, it is manifest in the mean achievements of both groups. This, presupposes that MS power point has been proved to be suitable for use in social studies education. This is not to say that MS word does not exert any effect on the academic achievement of students. It does as seen in table 4.2 where the mean achievement between the groups was not abysmally much.

Table 2: t-test analysis of Experimental group taught social studies with micro soft power point and controlled group taught with micro soft word

Groups	No	Mean	SD	DF	t-cal	t-ctrl	p-value
Experimental	30	63.87	9.84	58	2.12	2.00	0.04
Controlled	30	58.23	10.69				

Source: Field experiment 2011.

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Table 2 above shows a summary of the computed raw scores of students. It x-rays whether a significant difference exist between the performance of students taught social studies using MS power point and their counterparts taught with MS word. The result of the experiment revealed that the t-calculated arrived at is 2.12 while the t-critical value placed at 0.05% and level of significance is 2.00 at the degree of freedom of 58. By this analysis, it connotes that the t-calculated is greater than the t-critical i.e (2.12 >2.00).

Research question three: What is the mean achievement score of COE students in experimental group based on gender?

The analysis on table 3 shows that the mean scores in the achievement of male students which stood at 62.33 was competitively higher than their female counterparts which stood

at 59.72. The simple interpretation to this finding is that gender has effect on the academic achievements of students when applying ICT-based instruction into teaching of social studies. This finding could be complimented by the prediction that gender will affect the academic achievement of students when ICT-based instruction is applied in the teaching of social studies. However, it is trite in educational research to know that the response in research questions either positively or negatively does not ascertain the significance of the magnitude of the difference among the variables. Thus, when the mean scores of the male and female students in this experiment were further subjected to test of statistical significance, as seen in table 3. By implication, it means that gender is not and cannot be a barrier to the academic achievement of students in social studies when ICT-based instruction is applied.

Table 3: t-test analysis of the academic achievement of male students and their female counterparts when applying ICT-based instruction into teaching of social studies.

Groups	No	Mean	SI)	DF	t-cal	t-ctrl	p-value
MALES	30	62.33	10.33	58	0.94	2.00	0.35
FEMAI.ES	30	59.72	10.84				

Sources: Filed experiment 2011.

Table 3 above shows that the t-calculated is 0.94 while the t-critical value placed at 0.05% confidence level is 2.00 at the degree of freedom of 58. The interpretation of this figure underscores an acceptance of the academic achievement of male students and their female counterparts when applying IT-based instruction into teaching of social studies, because the t-calculated is less than the t-critical. i.e (0.94 < 2.00).

FINDINGS OF THE STUDY

Based on the results of the data presented, the following findings of the study were revealed;

1. There was significant relationship between the Information Technology based instructions on achievement of social

- studies students in ATB College of Education Kangere, Bauchi.
2. There was significant relationship between the mean achievement score of ATB-COE Kangere students of both control and experimental group in social studies before intervention.
3. There was significant relationship between the mean achievements score of ATB-COE Kangere students in experimental group based on gender.

DISCUSSION OF FINDINGS

It is manifest from the statistical analysis on table 1 that the difference between the two groups examined is in the variance of their mean scores. The students subjected to ICT- based instruction had higher mean score than their counterparts. This showed that those

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taught with IT-based instruction performed better than those taught with traditional technique. These differences x-rayed between these two groups led to the confirmation of the statistical analysis. The simple reason adduced for this result is not farfetched from the efforts exerted into the preparation, production and transmission of the instruction projected via MS power point, MS word, Laptop and digital projector.

It was observed that the group where the ICT-based instruction was applied, the teaching and learning process aroused the interest of students in the classroom. Effects, like animations, graphic, clip arts and sounds helped to broaden the perspective of the students as well. The findings above is in consonance with the study embarked upon by Salawu et al (2010) on the effects of electronic learning on the academic achievement of senior secondary school students. Their findings equally appraised electronic based instruction over non-electronic based instruction, when the Senior Secondary School students taught electronically performed better than their counterparts who were taught with other traditional techniques. The interpretation to the findings above seconds the effectiveness of ICT-based instruction in teaching and learning process in our institutions both at the lower or higher levels. The findings showed further that ICT based instruction aroused the interest of learners to acquire more information. No wonder Salawu *et al* (2010) maintained in their conclusion that "learning when organized changes and sharpens the behavior of individuals, that students can only learn where their interest can be obtained by distracting their attention intentionally". It is on this premise that Purushothaman (2007) deliberately submits that, "the use of ICT based instruction in modern teaching helps the learner to learn the 'subject matter' in itself along with the acquisition of more skills such as keen observation, creative thinking, generalization, inference drawing, decision making, discriminative thinking and scientific thinking".

As mentioned, this study does not in it's entirety negate the virtues of traditional teaching techniques in social studies when compared to the much cherished ICT-based instruction, But stands to confirm the need to

patronize ICT-based instruction to further enhance the achievement of students in social studies. This effort will breed the zeal of learners in education to comply with the new educational order built on the principles of information acquisition via electronic devices. It is noteworthy that the center-piece of this research is the justification of the effect of ICT-based instruction over the imperatives of traditional teaching techniques. Interestingly, the result culled from the experiment has proved the prospects IT have in rejuvenating the standards of social studies education in particular. Bayero (2007) complimented this assertion when he maintained that: "...teachers who use ICT-based instruction in their classes have an additional avenue to engage students in learning, as it can provide access to many contexts for social inquiry and value exploration. On the contrary, he maintained that teachers who do not integrate ICT in their teaching subject their students to teacher-centered and subject-centered approaches, thereby limiting their source(s) to knowledge, teachers and textbooks alone.

This equally compelled the study to display positive endorsement for research question two - which invariably implied that difference could be deduced from the academic achievement of social studies students taught with MS power point and their counterparts taught with MS word. Table 2 showed the difference in achievement in which the mean scores of the experimental group taught with MS power point was higher and better than their counterparts in the controlled group taught with MS word. The essence of postulating this assumption was to justify with exactitude the most suitable ICT package (s) for teaching social studies. It became manifest that the experimental group taught using MS power point performed better. Reason was that MS power point is mostly used as presentational software, which presents information in different slides, with effective graphics, and other software features, displayed via the laptops and digital projector. It was observed that in the experimental group where MS power point was used, the teaching-learning interaction was interesting and participatory, which is a confirmation of the submission of Eden (1973) in Okam (2002) who

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maintained that: "Student's desire for success is closely linked with their interest, targets, attitude and aptitude".

The researcher is not really aware; of any particular study to be proved or disproved by the findings of this study. However, it could be inferred that the use of MS power point to prepare, produce and transmit information to students should be the preoccupation of social studies teachers. Although, Abah (2007) argued that "there is no particular curriculum that clearly specified the exact ICT packages for teaching at different times", but on the contrary, this study has proved beyond doubts that an ideal presentational package which is MS power point has been found relevant in social studies classroom to improve the academic performance of students. In the perception of the researcher, if relevant facilities of ICT-based instruction are patronized, they will provide practical and visual experiences that would be missing in traditional mode of teaching in social studies which is often referred to as the 'talking and chalking' technique or teacher-centered approach.

It shows a positive confirmation to research question three that gender does not affect the academic achievements of students with regards to the application of ICT- based instruction in teaching. Owing to the fact that the male students were expected to perform higher than their female counterparts. The female students were observed to be mostly inconsistent in the attendance of their lectures and were habitually coming into the class late. However, devoid of the female's inconsistent attendance, a comparative percentage of them, who had personal computers copied and down loaded the entire lecture into their various storage devices for personal study. With their achievement, it could be inferred in consonance with Bayero (2007) that, "students who are really exposed to other ICT packages to get information, may not necessarily be in the classroom on a face-to-face contact with their teachers or lecturers before learning takes place".

In addition, the above findings are consistent with the submissions of Abah (2007) who posits that: "The effect of IT packages is not restricted to any age, ability level, gender, race, nation or location. Instead he advised that

instructors should construct sensible IT Pathways that may meet the need of different teaching methods, abilities and class groupings". Finally, the result of this finding and recurring reactions agrees with the position of Malum and Obe (2007) who asserted that: "male and female students are not significantly different in their anticipation of the prospects of ICT-based instruction in teaching and development of education". This was as a result of the mean achievement of the entire students they examined in their study.

Despite the omnibus achievement of female students in the experiment, suffice it to say that some female experts in education still believe that their female counterparts are being marginalized when it comes to the application and utilization of ICT devices in teaching and learning processes in schools. That in most cases where these other ICT facilities like the internet services are provided, they believed the male students dominate the systems. This contention is clearly seen in the emphatic resonance expressed by Utulu (2007), when she submitted that very small number of women have the possibility of using new information technologies. That women's access to IT has been restricted by geographical location, time, and cost, social and cultural norms. She finally stated that information technology is not gender neutral.

Obviously, contention has been refuted or disproved by the findings of this study. This study has shown that female students have the potentials to perform excellently, if they can commit themselves like their male counterparts. Interestingly, this study has proved that ICT imperatives have effects on any one patronizing it. In a nutshell, Onwuegbuna *et al* (2007) advised that, "it is imperative for female students, if they think ICT is not gender neutral, to ensure that they understand the significance of ICT and use them effectively. If not, they will become further marginalized from the mainstream of education as they claim". With the position this findings have demonstrated, gender shouldn't be a barrier to the patronage of ICT imperatives in teaching and learning process in the institutions.

CONCLUSION

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Based on the findings espoused above, it was concluded that: the use of ICT-based instruction in the teaching of social studies enhances the performance of students compared to the use of other traditional teaching techniques in social studies like, lecture method, dramatization, questioning and role playing. A Microsoft power point presentational package has been justified to be the most suitable ICT-based instruction to be used in the teaching of social studies. The locations of teacher training institutions in places where adequate social amenities and infrastructure like consistent power supply, availability of ICT facilities, makes teaching and learning processes in social studies interesting; and Gender is not a barrier to the preparation, production, application, transmission and utilization of ICT-based instruction in social studies to enhance teaching learning process and the achievement of social studies students. ICT has proved to be effective on both male and female students who utilize its imperatives for instructional development.

RECOMMENDATIONS

In view of the findings and conclusions drawn from the study, the following recommendations are proffered:

1. There is outright need for the incorporation of modern ICT-based instruction into the teaching and learning of social studies in teacher training institutions. Experts in social studies should collaborate with IT-Finns to help produce social studies course ware that would simplify teachers' challenges in producing a well-structured ICT-based lesson.
2. Social studies teachers must train and retrain themselves continuously on the use of ICT-based instruction. They should at least understand the organization of content in MS power point and the use of modern digital projectors to present their lectures.
3. Government should provide adequate, effective and functional ICT-facilities to teacher training institutions. It is obvious that the population explosion experienced in teacher education today has made these existing facilities inadequate. Thus, every

department should as a matter of urgency provide at least commensurate number of digital projectors to meet the needs of her lecturers. As for lecturers, though, it is interesting today to see that majority of lecturers have their personal computers (PCs). When these efforts are synergized, They will encourage students with PC(s) to easily download or copy the entire content of the lecture for their personal study.

4. Social studies lecturers should compel their students to generate information from the internet and other IT-related sources of information, when individual or group assignments are given to them. The teacher should ensure they guide the students on the relevant search engines or websites to download their necessary information.

REFERENCES

- Abah, C.O. (2007). A review of two computer assisted learning packages in biology. *Benue State University journal of education*. 7:130-137,
- Abdulsalami, L. J. (2003). An Appraisal of Information Technology in Education. *Journal of Educational planning and Management*. .1(1) 163-170.
- Aboho, D. A., Andurai, S.I. and Aboho, R.M. (2007): Information Technology for enhancement of distance learning: The way forward. *Benue state university Journal of Education* 7:24-29.
- Adejumobi, S. A. (1981). Problems and issues in the Teaching of Social Studies with Particular Reference to Teacher Training Colleges. In Akinlaye, F.A, Kupolati, C.O, Opawale, D.A and Oshungbohun, T. (Eds). *The Concept and Scope of Social Studies Education for Schools and Colleges*. _ Ibadan: Onibonoje publishers.
- Adeyoyin, F. A (1982). The Social Studies: An Overview. In Aina, N. F, Adeyoyin, F.A, Obilo, E. E and Ahmadu, U.S (eds). *Social Studies: A Book on Methodology*. Ibadan: Evans Brothers (Nigeria Publishers) Limited.

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- Agishi, S. K. (2006). The Role of Information Technology in Vocational Guidance for Career Choice in the Nigerian School System *Benue State university journal of Educational 7(1)* 60-65.
- Agyeman, O. T. (2007). IT for Education in Nigeria: Survey of IT and Education in Africa; Nigeria Country Report. Retrieved August 17, 2009 from www.infodev.gov
- Ajibili, O. (2005). Social Studies Education: The Antidote to Moral Decadence among Nigerians in the 21st Century. An Unpublished B. Ed Project. Ahmadu Bello University, Zaria. Nigeria.
- Akem J. A (2004). *Research and Statistics for Higher Education*. Makurdi: Destiny Ventures.
- Akem J. A (2005). *Evaluation Techniques in Schools and Colleges: A Hand Book for Teachers*. Makurdi: Nigeria. Selfers publishers.
- Akinlaye, F.A. (2003). *Fundamentals of Social Studies Curriculum Planning and Instruction*. Lagos: Nigeria. Pumar Nigeria Limited.
- Albirini, A. (2006). Cultural Perspectives: The Missing Element in the Implementation of IT in Developing Countries. *International Journal of Education and Development using IT 2(1)*. Retrieved July 13, 2008 from <http://iolit.merlot.org/00/3no4/albirini.htm>
- Andzayi, C. A. (2003). Factors Affecting Computer Application in Education. *UNI JOS Journal of Educational Studies 9(1)*. / 5-24.
- Awe, J. (2009). Nigeria: Bridging the Infrastructural Divide. Retrieved February 17, 2009. Available on <http://www.iidaw.com/itsolutions/telecommunicationto8.html>
- Bayejusa, P. N. (1981). The Nature of Social Studies. In Akinlaye, F.A, Kupolati, C.O, Opawale, D.A and Oshungbohun, T. (eds). *The Concept and Scope of Social Studies Education for Schools and Colleges*. Ibadan: Onibonaje publishers.
- Bayero, H. I. R. (2007). The Impact of Information Technology on Social Studies Teaching: Prospects and Challenges. *ABU Journal of Educational Research and Development. 2(1)* 1-6.
- Bolarin, T A, Obebe, B. J, & Olaniyoju (1996). *Teaching Social Studies in Nigerian Schools*. Ibadan: Olu-Akin Publishers.
- Chirfat, B, Zumyil, C. F & Ezema, M.A (2003). *The Status of (IT) in Colleges of Education*. In Akale, M.A.G. (ed). Information and Communication Technology and Science, Technology and Mathematics (STM) Education. In: proceedings of 44th Annual conference of STAN p.48-52. Ibadan: Heinemann.
- Danladi, E. N, (2000). Elements of Social studies. In Ololobou, YPS, Jacob, S and Ndazhaga, j. (eds) *Dimensions of Social studies*. Volume 2. pangshin: Academic Trust fund,
- Danladi, E. N. (2006). *Introduction to Curriculum and Instruction* Kaduna: Joice Graphic Printers and Publishers co.
- Danladi, E.N & Bulya, T.I. (2006). 'The Relevance of Information Technology for Promoting the Objectives of Social Studies in Nigeria', *Benue State University Journal of Education. .7 (1)* 224-251.
- Dhand, I. T. & Lyons, J. (2007). An Innovative Social Studies Curriculum in Canada: An Experiment. In Venkataiah, N. (td). *Curriculum Innovations for 2000 AD*. New Delhi: APH publishing Corporation.
- Dubey, D. L. & Barth, J. L. (1980). *Social Studies: The Inquiry method Approach*. Kenya: Thomas Nelson and Son Limited.
- Ekwemc, J.N. (1999). *The Place of Information Technology in Our Educational System*. Paper presented at NAFDAC. In Knowledge Review. A Multi-disciplinary Journal. Vol 1(3) 66-69.
- Eriba, J. O & Adejoh, M. J. (2004). *Status of Information and Communication Technologies (IT) in Science Education Programs in the Universities in Benue*

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- State. Benue State University Journal of Education. Vol. 7(1)26-32.
- Esezobor, K. E. (2009). *Social Studies Methods for Schools and Colleges*. Zaria: Amana Publishers LTD,
- Fadeyiye, J. O. (2005). *Social Studies Textbook for Colleges and Universities. (Part One)*. Ibadan: Akin-Johnson Press and Publishers.
- Famwang, M.V. (2003). The Role of Instructional Media in Teaching and Learning of Social Studies. UNIJOS institute of Education Journal of Educational Studies. Vol.9(1) 42-48.
- Federal Republic of Nigeria (2004). National Policy on Education (NPE). 4th edition. Lagos: Federal Ministry of Education.
- Guseit, J. N. (2003). *The Economic, Health and Social, Consequences of Information and Communication Technologies in Nigeria*. UNIJOS Journal of Educational Studies. Vol. 9(1)71-81.
- Ibrahim, M.O. (2007). *IT: an Indispensable Tool for all Mathematics teachers*. ABU Journal of Educational Research and Development. Vol.2(J.)15-18.
- Idachaba, J.A (2003). Availability and Use of Information Technologies in Universities of Agriculture libraries in Nigeria. Unpublished Masters Thesis. Kano: Bayero University.
- Idachaba, J. A. (2008). Education in Nigeria: Past, Present and Future. Proceedings of Teachers' Summit. Kaduna: National Teachers Institute.
- Iyela, A. & Yar-Ali, B.S. (2002). *The Philosophical Background of Social Studies*. In Iyela, A, Gana, U.I and Audu, U.F. (eds). An Introduction to Social Studies in Nigeria. Vol. 1. Lagos: Lagoon Publishers Ltd.
- Jacob, S. (2000). Introduction to the Teaching of Social Studies. In Ololobou, Y.P.S, Jacob, S. and Ndazhaga, J. (eds), *Dimensions of Social Studies*. Vol .2. Pankshin: Academic Trust Fund.
- Jegede, P. O. (2009). *Assessment of Nigerian Teacher Educators' IT Training. Issues in Information Science and Information Technology*. vol.6(l). Retrieved September 10, 2009 from <http://www.idre.ca/en-93060-201-1-dotopl.html>
- Kwache, P. Z. (2007). *The Imperatives of Information and Communication Technology for Teachers in Nigerian Higher Education*. Journal of online Learning and Teaching. Vol.3 (4) 1-6. Retrieved July 13,2009 from <http://iolt.merlot.org/vol3no4/kwache.htm>
- Labe, B. I & Akaakase, H. E. (2006). *Practical barriers to the Use of Digital Information Technologies in the Nigerian Classroom*. Benue State University Journal of Education. Vol, 7(1) 201-207.
- Lawal, H. S. (2003). *Teacher Education and the Professional Growth of the 21st Century Nigerian Teacher*. The African Symposium, 3 (2)11-15.
- Lawal, F. K, Ahmadu, H. O & Dogara, M.M (2003). *The Status of Information and Communication Technology (IT) in Teaching Science, Technology and Mathematics (STM)*. In Akale, M.A.G. (ed). Information and Communication Technology and Science, Technology and Mathematics (STM) Education 44th Annual conference proceedings of STAN pp.37-40. Ibadan: Heinemann.
- Leedy, P. D. (1997). *Practical research: Planning and Design 6th Edition*. New Jersey: Morrill Publications.
- Livinus, A. L, Tiough, D. M, & Nevkar, D. A. (2006). *Information Technology and the Challenges of the Teacher*. Benue State university journal of Educational. 7(1)9-14.
- Mallum, Y. A. & Obe, A. O (2006). *Information Technology and Counselling Education*. Benue State University Journal of Education. 7 (1) 215-223.
- Mezieobi, K. A, Fubura, V. R. & Mezieobi, S.A. (2008). *Social Studies in Nigeria: Teaching Methods, Instructional Materials and Resources*. Owerri: Academic Peak Publishers.
- Nwachukwu, O. (2006). *Appraising the Relationship between IT Usage and Integration and the Standard of*

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- Teacher Education Programs in a Developing economy*. International Journal of Education and Development Using IT: Research Support Tool. Retrieved may 5, 2009, from <http://iiedIT.dec.uni.edu/rst/rst.php?op=view metadata&id=194>
- Obi, G. E. (2008). The Contributions of Social Studies Education for an Effective Citizenship Development. In Omooba, B.T, Obi, G.E and Olabode, J.A (Eds). *Topical Issues on Contemporary Social Studies Education*. Kaura Namoda: Kaura Namoda Educational Associates.
- Ojo, G. (2008). *Social Studies Teachers as Role Models in Achieving Value Regeneration*. Nigerian Journal of Social Studies . xi (1)38-50.
- Okam, C. C. (2002). A survey of the place of Instructional materials and resources among social studies teachers in Plateau State. The Quest for effectiveness in classroom Pedagogy, in Okam, C.C. (Ed). *Readings in New Developments in Nigerian education. Issues and Insights: A collection of curriculum papers*. Jos, Deka Publications. P. 212-225.
- Okhiria, P. (2007). IT Initiatives in Nigeria. The Vanguard, Feb., 8, p.7
- Okojie, M. U. (2007). *Information Technology and Effective Teaching and Learning: Focus on Social Studies Education*. ABU Journal of Educational Research and Development. 2(1) 7-14.
- Okonkvo, M. E. (2004). Foundations of Social Studies. In Ololobou, Y.P.S, (ed). *Social Studies for Effective Citizenship*. Kano: The Kano-Zaria Social Studies Collectives.
- Olabode, J. A. (2008). *The Contributions of Social Studies Concept to Nation-Building*. In Omooba, B.T, Obi, G.E and Olabode, J.A. (eds). *Topical Issues on Contemporary Social Studies Education*. Kaura Namoda: Kaura-Namoda Educational Associates.
- Olakulehin, F. K (2007). Information and Communication Technologies in Teacher Training and Professional Development in Nigeria. Turkish online Journal of Distance Education. Vol. 8(1). Retrieved July 20, 2009 from <http://toide.anadolu.edu.tr/tojde25/article/Aticlc11.htm>
- Ololube, N. P (2004). Professionalism: An Institutional Approach to Teacher's Job Effectiveness in Nigerian Secondary Schools. Paper presented at the 7th International LLINE Conference, September, 23-25. retrieved January 11, 2009, from <http://www.ied.edu.hk/apfslt/v8 issues/Ololube.htm#7>
- Ololube, N. P (2006). *Appraising the Relationship between IT Usage and Integration and the Standard of Teacher Education Programs in a Developing Economy*. Retrieved April 19, 2009. From <http://www.ied.edu.hk/apfslt/v7 issue2/ololube.htm#6>
- Ololube, N. P. (2007), *The Relationship between Funding, IT, Selection Process, Administration and Planning and the Standard of science Teacher Education in Nigeria*. Asia Pacific Forum on Science Learning and Teaching, vol.8(l) article 4. Retrieved April 19, 2009 from <http://www.ied.edu.hk/apfslt/v8 issue1/ololube/ololube.htm#6>
- Onwuegbuna, S. N, Onwuegbuna, J. O. & Oluwole, M. U. (2007). *Women Education and Information Technology in Nigeria*. Benue State University Journal of Education. Vol. 7(1) 109-116.
- Orakwe, I. T. C. (2007). *The Role of Social Studies in Moral and Political Reforms in Nigeria*. Nigeria Journal of Social Studies, .x (1&2) 135- 148.
- Orungbemi, O. (2008). *How Information Technology can Aid the Teaching of Social Studies in Nigeria*. Nigerian Journal of Social Studies, xi (1) 160-167.
- Osei, T. A. (2007). *Information and Communication Technology for*

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- Nigeria. Retrieved December 20, 2009. Available at <http://www.itu/newsroom/wtdc/2007/policy/statements/nigeria.html>
- Otuka, J. O. (2004). *Educational Research methods (EDUC 702)*. A lecture Manual for National Open University of Nigeria (NOUN).Lagos: Macmillan Nigerian Publishers Limited.
- Oyebola, O. (2007). 'Promoting Effective Teaching and Learning of social studies through Internet technology'. Nigerian Journal of Social Studies, x (1&2) 219-228.
- Ozaji, B. E. (2003). *The Place of IT in the Teaching and Learning of Integrated Science*. In Akale, M.A.G. (Ed). Information and Communication Technology and Science, Technology and Mathematics (STM) Education 44th Annual conference proceedings of STAN pp.159- 162.
- Purushothaman, S. (2007). Use of Interactaive video for developing scientific thinking among learners in the classrooms. In: Venkataiab, N (Ed), Curriculum Innovation for 2000 AD. New Delhi. APH. Publishing corporation. P123-131.
- Quartey, S. M. (1984). Social Studies and its Implication for Teaching and Evaluation. CESAC Journal of Research in Curriculum.Lagos: 2(2) 41-49.
- Salawu, A. Agai, B. and Onuche, S. (2010). The effects of electronic learning on the Academic Achievement of senior secondary school physics students: A case study of Sabon Gari Local Government Area of Kaduna State. Unpublished B.Sc.,Ed Project. Ahmadu Bello University, Zaria, Nigeria.
- Samuel, W. (2006). *Education, Financing, Overcoming the Challenges*. Retrieved February10,2008from<http://www.thisdavQnline.eom/n/vie w.php?id=40097>
- Singh, Y. K (2008). *Teaching of Social Studies±* New Delhi: APH Publishing Corporation.
- Tancook, S. M. (2002). *Reading, Writing and Technology: A Healthy Mix in Social Studies*. Reading Online 5(8). Retrieved June 10, 2006. Available on www.readingonline.org
- Tiamiyu, L. R. (2002). *Historical Background of Social Studies*. In Iyela, A, Gana, U.I and Audu, U.F, (eds). An Introduction to Social Studies in Nigeria. Vol.I. Lagos: Lagoon Publishers Ltd.
- Tutu, A. O. (2006). IT for Education in Nigeria: Analysis of IT and Education in Africa; Nigeria Country Report. Retrieved August 17,2009 from <http://www.infodev.gov.IT/country>
- Ujjakhien, O. M. (2007). I T and the Effective Teaching and Learning: Focus on Social Studies Education. ABU Journal of Educational Research and Development. 2(1) 7-14.
- Ukeje, B. O, Akaboyi, G.C &Ndu, A. (2000). Educational Administration. Enugu: Fourth Dimension Publishing Company.
- Utulu, R. (2007). Gender and Information Technology in developing countries. *Benue State university journal of education* 7:146-161.
- Yakubu, A. M. (2004). *Teaching Education in the New Millennium: the Role of Library and Information Technology*. Zuba Journal of Educational Studies. 1(1) 1-5.
- World Fact Book. (2007). *Information and Communication Technology: The Nigerian Experience* .Retrieved April 10, 2009 from<http://www.cia.gov/librarv/publicati ons/the-world- factbook/geos/ni.html>

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