

LEARNING LOSS IN BIOLOGY THROUGH AVOIDANCE OF FIELD TRIP DUE TO INSECURITY AND COVID - 19 PANDEMIC IN NIGERIA

¹Titus Matthew; ²Audu Danladi Passi & ³Mu'azu Nasir Kontagora
Corresponding E-mail: titus_matthew@yahoo.com

^{1,2}Department of Biology, Niger State College of Education, Minna.

³Department of Integrated Science, Niger State College of Education, Minna.

Abstract

Traditional field trip in Biology has been known to be one event that aids learning outside of the classroom. It enhances hands on knowledge by the learner seeing things in their natural environment. Even the National policy on Education places emphasis on this. Unfortunately, the insecurity and Covid -19 pandemic situation globally and in particular, in recent years brought about closure of schools abruptly and for long periods of time. This has caused many learners and teachers to abscond from, and in some cases abandon school. Field trips are also being avoided as a consequence. This paper is a review of the effects of these challenges of insecurity and Covid -19 pandemic that has caused learners and educationists to avoid field trips and its consequent learning loss in Biology. Alternatives to field trips were suggested which largely has to do with virtual simulation of the intended trips.

Key words: Learning, Loss, Avoidance, Field Trip, Biology, Insecurity, Covid-19

1.0 Introduction

Biology is said to be the study of living organisms. These living organisms include plants and animals, unicellular and multicellular organisms. It covers several many specialized fields and also studies the environment of these living organisms and how they impact on each other. According to National Policy on Education NPE (2014 in Ezechi, 2018), the objectives of Biology education include the preparation of students to acquire adequate laboratory and field skills in biology. To achieve the stated objectives, emphasis is placed on field studies, Laboratory techniques and guided discovery in the development of the content and context of its curriculum. The biology curriculum at several levels of secondary and tertiary education makes field trip an essential, core and compulsory prerequisite course that students must take and pass before they can successfully graduate.

Recent challenges of insecurity in Nigeria and the emergence of the Corona virus disease (Covid-19) globally have in no small measures affected elaborate planning and actualization of field trips in particular and education in general. Many communities in all

regions of Nigeria today are battling with incessant banditry, kidnappings and assassinations. The North East in addition to the aforesaid is still engulfed in terrorist, Boko Haram attacks.

2.0 Field Trip: Meaning and Importance in Learning Biology

Field trips are rich in educational possibilities as students learn from actual hands-on experience rather than by simply reading or hearing about something. The key to success in science is not just providing students with a science immersion experience, but also enabling them to conceptualize science as a creative process of thinking other than a defined body of knowledge. According to Yusuf (2011), the most natural learning is realized through personal experience. Students involving in their work will make them learn and enjoy it.

Students appreciate the relevance and importance of what they learn in the classroom through field trips.

Akubulo (2010), explained field-trip to be a method of teaching that involves taking the students on an excursion outside the classroom for the purpose of making relevant observation necessary for understanding of the topic under study. He further posited that such trips /excursions enable student to obtain scientific, technological and vocational information.

Field trip offer students firsthand experience since they see and observe processes in natural life settings. Field trip enables students to discover and explore new information and also apply/organize previous knowledge by giving concrete examples. They aid the teacher to arouse the interest of the learner thereby enabling the learner to gain direct experience (Ilori, 2010). Bitgood and Stephen (2009), defined field trip as a trip by students to gain firsthand knowledge away from the classroom, as to a museum, factory, geological area, or environment of certain plants and animals.

Field trip is a trip arranged by the school and undertaken for educational purpose in which the students go to places where the materials for instruction may be observed and studied directly in their natural setting. In field work, students assume active investigative roles, thinking like scientists and doing real science. Direct experience with real objects and processes can give form and meaning to primary concepts.

Nature plays an active role in effective learning. Environmental learning creates close association between the learner and the environment thereby granting the students (learner) the opportunity to involve the complete senses in the learning process. Field-based approach to learning creates a platform for social learning amongst students. Field trips provide an opportunity to involve students, parents and the teachers in the instructional program. Students can select the place to be visited, developing questions to

ask, writing reports after the trip, or evaluating their experiences. Since parents must give their permission, a letter sent home with the permission form explaining purpose of the trip is a good way to arouse their curiosity and encourage them to ask the student or teacher about the trip. The parent guides their child in order to make sure that they do not come to any harm. This role allows the parents and teachers to establish a much closer relationship. Science education in the field centers primarily on observational and experimental activities (Ezechi, 2018).

The natural environment is the main source of information for learning activities. Pupils learn how to use the scientific methods for solving problem. They take and analyze samples, create hypothesis and plan experiments. Also, field trips offer a lot of meaningful and educative opportunities to students. These opportunities according to Wilson (2011) are as follows:

- i. Field trips provide real learning experience to students as it provides them with the opportunities to put what they learn through other method of teaching into practice.
- ii. Field trip activities give students the opportunities to see the world (its cultures, diversities and realities) for themselves.
- iii. Biology field trips give the students opportunities to gather real ecological data
- iv. As the students go out and study in groups during field trips, their interpersonal relationship improves as they learn to live and work with others, supporting each other during group learning activities.
- v. Field trips enhance student's memory as the students have been found to remember what they learn in the trips for many years. Considering the importance of biology and the number of students doing it, it is a disturbing situation to note that large number of students failed biology in the Senior Secondary School Examination (SSCE). Statistics from the West African Examination Council for six years revealed persistent poor performance in science subjects especially in biology (WAEC Chief Examiner's reports for 2010, 2011, 2013, 2014 and 2015).

Among the causative factors are Biology teachers' widespread use of ineffective lectures and inadequate materials or resources needed for effective teaching of biology (Egbunonu and Ugbaja, 2012). This may be due to the fact that emphasis is primarily on students' poor acquisition. Thus, biology is presented to the students as a static body of knowledge rather than a dynamic growing field of discovery. It is therefore needful to investigate the use of more efficacious strategies in the study of biology. Hence, the study is on the influence of field trips in teaching and learning of biology.

In the life sciences, there is a difference in the way students contextualize information while they observe life in its natural environment, rather than in the laboratory. In many biological subjects, the laboratory is appropriate and entirely necessary, but for others such as the study of animal behaviour, there is no substitute for observations made in the animal's natural habitat. Those experiences can instill a far greater connection between

students and the biological work, compared with those in the laboratory or the classroom. The complexities of evolution and ecology are also better appreciated when observed directly in the context of the natural world, rather than in schematic diagram of a food chain.

3.0 Insecurity in Nigeria

The deteriorating security situation in Nigeria is worrisome. Recently, Nigeria has witnessed unprecedented level of insecurity ranging from intra-communal, inter-communal and inter- ethnic clashes; religious violence; armed robbery; assassination, kidnapping and “boko haram” insurgency (Mutiullah cited in Abubakar, 2011). Insecurity in Nigeria is causing developmental challenges such as endemic penury, high rate of unemployment, inured corruption, low industrial output, unstable and deteriorating exchange rate, high inflation rate, inadequate physical and social infrastructure, large domestic debt, and rising external debt profile (Ewetan, 2013). These problems have posed severe threats to socio-economic development in the country in that it stifles business and economic activities and discourages local and foreign investors (Ewetan & Urhie, 2014).

High level of insecurity in Nigeria is associated to numerous factors in which ineffective education is the most prominent and root to other factors. Although, many Nigerians are literate but are not sufficiently educated because the impacts of education could not be found in them. This is because what are taught in the school environment at variance of the needs of society. Most Nigerians are proud of certificates without practical skills (Is'haq, et. al., 2019).

The Covid – 19 Scourge and Its’ Attendant Effects on Education and Field Trips

Covid – 19 was first reported in Wuhan, China on 31st December, 2019. The pandemic, like wildfire spread in no time to most parts and regions of the world. Africa and indeed Nigeria was not spared in this spread. On January 30, 2020, the World Health Organization (WHO) announced that this outbreak had constituted a public health emergency of international concern (Mahase, 2020). The novel coronavirus was initially named 2019-nCoV and officially as severe acute respiratory syndrome coronavirus 2 (SARSCoV-2). As of February 26, COVID-19 has been recognized in 34 countries, with a total of 80,239 laboratory-confirmed cases and 2,700 deaths (WHO, 2020). It further reported that the pandemic had globally affected over 240 million people with over 200 thousand people in Nigeria. 5 million and 2,500 deaths recorded in the World and Nigeria respectively (www.worldometers.info/coronavirus).

As a consequence of the pandemic, federal schools were closed in Nigeria on 27th March, 2020. This was followed by varied closure of schools by the states. The closure brought education to almost a standstill.

In detail account of United Nation Education, Scientific and Cultural Organization (UNESCO), about 35.9 million primary and secondary school learners are currently out-of-school as a result of the school closures. For primary schools, this number totals

approximately 25.6 million students, of which about 87 percent (23.5 million) are students enrolled in public schools. The numbers are just as stark for secondary school learners. Of the roughly 10.3 million secondary school students who are out-of-school as a result of the closures, approximately 81 percent (8.4 million) of them are public school students (Adelakun, 2020). There is no assurance that all the learners who left the school will be back in school the pandemic lockdown; some may have changed their lives' view seeing going to school as a waste of time, some may have died, some will change school, some may have joined bad groups shifting their attention away from school. Etc. this is where the work of parents and guidance should come in to ensure the proper welfare of learners even while they stayed back home. Unfortunately learning within the homes are as well limited looking at the literacy level of some parents in Nigeria; not every parent could handle well the pedagogy aspect of parenthood and besides other commitments of parents are to be considered. The effect of this may not be easily noticed now; the future of a child in this category is naturally exposed to a serious academic crash if there are no proper interventions, because until the ban on movement is lifted and schools are reopened, majority of students will not be learning (Adelakun, 2020).

4.0 Recommendations

Online/remote instructional modalities are still the best alternative to in person instruction, therefore:

- The government should provide all instructional facilities that will support online education in all the secondary and post-secondary schools in Nigeria (Ogunode, 2020).
- Weekly online programmes on topics ranging from deep ocean biology, terrestrial ecosystem and planetary science should be enforced.
- Create blended environment to offer a lot of flexibility to the students, that is, in the future, options for online learning will become more available to our students, allowing much more flexibility. Different students learn in different ways, and some will thrive in an environment where they can learn at their own pace (Paschoi, 2021).
- Employ more professionals in ICT as instructors to help the students develop a science identity at a very early age and combat misconceptions and misinformation about science (Paschoi, 2021).
- Show documentaries. This can be educational and revealing about a faraway place or topic.
- Bring the field trip to the classroom. For example, instead of a physical trip to the zoo, an animal educator can be invited to bring a few, small, safe animals to the school.
- Google tour builder, for example, offers presentations that combine Google Earth images with written text to create an immersive story telling experience of locations

around the globe.

- Photographic tours could be shown in classroom.
- Pre-recorded events can be played in the classroom.
- Advantage of all these virtual alternatives is that you are not limited in any way by geography.

5.0 Conclusion

Field trip, a core component course in Biology is being threatened by insecurity and Covid – 19. It is pertinent to say that the government at all levels must rise above mere pronouncements to address decisively these two issues. This is important so as to again instill confidence in the citizens concerning their safety in schools and everywhere.

But while we continue to hope that government will do its part, as educators in Biology, we must improvise by use of virtual and other options to achieve the same purpose of traditional field trips. Government at all levels must also provide the needed resources and equipment to schools

6.0 References

- Abubakar, O. S. (2011). Promoting culture of peace for sustainable development in Nigeria: Issues and Options. *Journal of African Scholars and Practitioners*, 1(1), 45 – 54.
- Akubuilu, A. (2010). A Sense of Place. *Science Teacher* 78(5), 12.
- Adelakun, I. S. (2020). Coronavirus (COVID-19) and Nigerian Education system: *Impacts, Management, Responses, and Way Forward. Education Journal*. Volume 3, Issue 4, 2020 ISSN: 2617-4588, Page 93-102. www.itspoa.com/journal/edu
- Bitgood, J. and Stephen, B. (2009): How Nigeria teacher select interactional materials. *British Journal of educational technology* vol. 19.
- Egbunonu R.N & Ugbaja C. (2012). Biology Teachers Perception of the Factors Affecting the Effective Implementation of Biology Curriculum. *The way forward for Education Reform*.
- In Abonyi, O.S (ed) proceedings of the 52nd Annual Conference of Science Teachers Association of Nigeria, PP 235-242.
- Ewetan, O. O. & Urhie, E. (2014). *Insecurity and socio-economic development in Nigeria. Journal of Sustainable Development Studies*, 5(1), 40-63.
- Ewetan, O. O. (2013). Insecurity and socio-economic development: Perspectives on the Nigerian experience. *A lecture Delivered St. Timothy Anglican Church, Sango-Ota, Ogun State*.

- Ezechi, N. G. (2018). Influence of Field Trip in Teaching and Learning of Biology. *International Journal of Engineering & Scientific Research (IJMRA Publication)* Vol. 6 Issue 10, October 2018.
- Is'haq, A. B., Musa, T. A and Abdulhafiz, Z. (2019). Education and Insecurity in Nigeria. Retrieved from <https://www.researchgate.net/publication/332548880>.
- Ogunode Niyi Jacob (2020) Effects of Covid - 19 School Close Down on Academic Programme of Senior Secondary Schools in Abaji Area Council of Federal Capital Territory Abuja, Nigeria. *Electronic Journal of Social Sciences and Humanities* vol. 2: Issue II ISSN: 2706-8242 www.eresearch.com
- Wilson, M. (2011). Field Trip Fundamentals. *Educational Digest*, 76(6), 63-64.
- World Health Organization (2020). Modes of transmission of Virus Causing Covid 19: Implications for IPC. Precautions and Recommendations. Scientific Brief. World Health Organization. Retrieved from <https://www.who.int/newsroom/commentaries/detail/modes-of-transmission-of-virus-causing-covid-19implications-for-ipc-precaution-recommendations>
- Yusuf, M. (2011), The impact of self-efficacy, achievement motivation, and self-regulated learning strategies on student's academic achievement, *Procedia – Social and Behavioral Sciences*, 15, 2623-2626.