

Educational Excursion as a Strategy to Teaching Biology

Dr. Suleiman Dambai Mohammed
Department Of Science Education,
Faculty of Education,
Federal University of Lafia
suleimandambai761@gmail.com
08065685248

Abstract

This paper presented educational excursion as a valuable teaching tool for the biology teacher. Useful implementation strategies of excursion as a means of obtaining optimum results in teaching biology and learning were discussed. The paper also highlighted the procedure for organizing educational excursion. It highlighted on the meaning of educational excursion with its purpose. It provided the purpose of teaching biology, such as the developing the skills of observation, investigation, and critical thinking; the forms of excursion, such as natural focused trips and people focused trips; definition of school excursion along with sample sketch. Some factors to consider in organizing educational excursion such as deciding purpose and objectives; obtaining necessary approvals; setting a budget, etc. were highlighted. The importance of excursions such as provision of hands-on activities-development of social skills and curriculum expansion, etc. for students were discussed and finally. Educational advantages and disadvantages of field trips were also examined.

Key words: Education, Excursion, Field, Trip, Biology, Strategy.

Introduction

The teaching of science process skills apart from its psychological benefits as a motivational factor has everlasting impact on students learning. The biology teachers have at their disposal many resources that they could use to reinforce their teaching. Excursions/field trips are a teaching strategy that can be very effective for Biology education. Excursion method of teaching provides an opportunity to learners to visit different places across the world for their academic enhancement Research Gate (2024) states that excursions are effective and novel pedagogy and teachers report wanting to use them more frequently.

Purpose of Teaching Biology

Within the formal process of education, the teaching of Biology is included in the 6-3-3-4 system of education, revised in 2007 to 9-3-4 system of education in Nigeria. Specifically, the National Policy on Education (2014) categorizes Biology Education under the Post-Basic Education which is aimed at producing a community of Nigerians well-prepared for higher education, sustainable national development and global competitiveness. This section presents the challenges of effective post-basic education delivery in the country. Furthermore, some of the objectives of teaching Biology is to provide students with experience which will help them develop the skills of observing, investigating and thinking in order to obtain understanding of their biological as well as physical environments, to help students develop attitudes which are consistent with the methods and contents of science, to help the students in the application of scientific methods and knowledge to the solution of their problems in every day's life; and to help them

acquire basic scientific concepts, principles and theories with which to describe, explain and predict objects and events in the universe.

Purpose/Aim of Excursion

Tiktocs (2024) states that the purpose or aim of an educational excursion is to provide students with opportunities to learn about something new or different outside of the classroom setting. That excursions can take many forms, but all should be carefully planned to maximize students educational benefits. Some standard educational excursions include museum visits, historical site visits, play equipment values, nature walks, plays, and observations of local businesses; tours can also be combined with other activities, such as service projects research projects, or hands-on learning experiences.

Forms of Excursion/Classification of Excursion

Scribed (2024) states that, an excursion can be classified in various ways using the following criteria; by content, participants, location, duration, form of transportation, etc. He says classifying based on content can be as historical, industrial, art criticizing and others. Based on participants and location, he says it can involve type of participants as individuals, local, tourist, adults, school pupils, etc. while by location it could take the form of town, suburban, industrial, museum or complex of locations.

Never-ending (2024) states that the opportunity to step outside of life's normal always and experience something completely new is a thing you might not have known. Therefore, he says that there are tons of different possibilities for field trips, whether you are travelling far from home or just exploring the woods behind the house, but sometimes it can be hard to see all the opportunities for learning that surround you. Hence, that is why knowing what types of field trips there are, can be super helpful for figuring out what sort of educational opportunities you want. Therefore, never ending provides list of the different types of field trip opportunities that exist as follows Broadly;

(i)Natural Focused Trips and (ii)People Focused Trips

He further subdivides each of the above broad groups into the following:

4. Nature Focused Field Trips: That this category contains any field trip that is specifically focused on nature. That whether we are talking about trips aimed at teaching kids about plants or animals, exploring underground caverns, or learning about the natural world is a huge draw for kids and adults alike, and there is so much out there to choose from. To narrow it down a bit he tried to further divide natural trips into smaller grouping as follows;
6. Astronomical Field Trips: He explains that these are all about space. He says that there is nothing more exciting and curious in the minds of kids like exploring the universe where new discoveries are being made always. He itemizes astronomical field trips to include. Trip to an observatory; watching a rocket launch, watching an eclipse of the sun or moon; space museum trip, etc.
7. Botanical Field Trips: That botanical field trips are all about exploring the wonderful world of plants exploring how cactus survive in the desert; marveling at the diversity of wildflower in the spring; or taking the time to look at the leaves in the fall are all

- botanical trips. Again he adds that other examples of botanical field trips include; visiting a botanical garden; plant identification trip; foraging trips, etc.
8. Geological Field Trips: That geological trips are all about the earth and what makes up the ground we walk on. It's more than just looking at some rocks. Getting to see the building blocks of our planet can be an amazing experience and can take you to some incredible places, such as fossil hunting trip, going caving; Hiking mountain/volcano; visiting a hot spring etc.
 9. Zoological Field Trips: According to Neverending, zoological field trips can include so much more than zoos, but they are a great place to start. That any trip that is focused on the fauna of an area is a zoological field trip, whether that is exotic animal in the zoo or the squirrels at the local park. Animals can be great for kindling a kids curiosity and because of how interconnected the natural world is, they can be a great launching point for any number of exciting lessons. He explains that zoological field trips include; animal spotting/center; visiting an animal rescue center, swim with wild dolphins or go whale watching, visiting a zoo, etc.
 10. Ecological Field Trips: He lists some examples of ecological trips to include. Going camping, with kids; visiting a National Park, Taking a day at the beach.
 5. People focused field trips: Never ending provides the people focused trips as the second broad field trip category, and calls it field trips about Humanity.
That this is about the things people do, and the ways that we do there. To him looking at the things we have built, the foods we eat, or the jobs we have, if it is about humans it a people focused filed trip.

He breaks it down into the following:

6. Agricultural Filed Trips: According to him, agricultural trips are trips that are focused on the farm, farm trips are great options for teaching kids all about the life cycles of plants, the types and effects of weather, where our food comes from. He identifies some of his favorite agriculture trips to include: fruit picking petting zoos, and bee farming, visiting a coffee or tea plantation making your own chocolate, etc.
7. Architectural Filed Trips: According to him, architectural field trips are all about looking at the things that humans build. To him, the modern buildings fall into this specific category that basically if you are looking at a building that is still actively being used today it is an architectural filed trip. He opines architectural field trips to include: Exploring famous Landmarks, Visiting a Lighthouse; Exploring local architectural styles, such as French Quarters; Exploring famous houses or buildings (such as falling water or water falls etc)
8. Archaeological Filed Trips: He explains that archaeological field trips are trips out to see the buildings and artifacts of humanity's past. It is all about seeing the way the world was and learning about how humans got through life before our modern advances took hold. It's about seeing where we were from and how far we have come. He cited examples of this category to include ancient cave dwellings and the wonders of the world. Others include Visiting Native American ruins, Visiting ruins in other countries; Visiting cave painting sites, etc.
9. Historical Field Trips: That this is about learning from humanity's past but different from archaeological trips because historical trips focused more on the actions and events, while the archaeological trips focused more on buildings and artifacts of the past. He itemizes

historical trips to include Exploring the local history of your town or country; Learning about human history at UNESCO Cultural sites etc.

10. **Gastronomical Field Trips:** Reverending puts these field trips under the category of food. That the food we make and eat as a culture has a lot to say about us. That it all depends on and dictates our agricultural practices and our economy that if you want to learn about a culture, you should learn about its food and that includes your own home culture. He cited a nice culinary field trip to pair with an agricultural trip, so that if you can find a farm that has its own restaurant, you can stick around it to learn. That here includes cooking lessons, cultural restaurants, and local farm tours, about really any new meal you eat offers an opportunity to learn something new. Moreover, that you can visit a farm and make, or eat, a meal made from what they grow (for example, Caoba farms Guatemala). Exploring street food options in a different country (for example, street food and culture). And learning about how a favorite snack gets from farm to table (for example, Chocolate filed Guide). etc.
11. **Other Cultural Filed Trips:** He opines that any trip that does not easily fall into one of the other categories gets labeled as a “Cultural Field Trip”. These are the trips that are about the different ways that people do things today. That they are about exploring the way that the world around us works, and they can be considered trips into the “real world”. He cited examples like trips to the bank to find out how banking works can help foster an understanding of cultural systems that can have a huge impact on our future. He gave other examples of cultural trips to include a trip to learn about using looms to hand-weave a rug; to a local factory to see how they make things, or to a cultural festival to learn about how other people do things. He concludes that these trips can include watching instruments from other cultures, etc.
12. **Museum Trips:** He suggests that museums are often a blast to visit, and they can be super educational. That museums typically bring a lot of materials for education together for people to enjoy, but that they remove the context needed to allow kids to make cross-discipline connections. They put things out of the “real world”, and put them in a box, according to him, but supports “taking chances, making mistakes, and getting messy”.

School Excursions

TourTools (2024) defines school excursion or school trip as an educational outing organized by a school where students travel to a location outside the classroom environment. Research Gate (2024) looks at school trip as a broadly used term but mainly combines education and travel activities to specific sites, to enable students visit different places around the world.

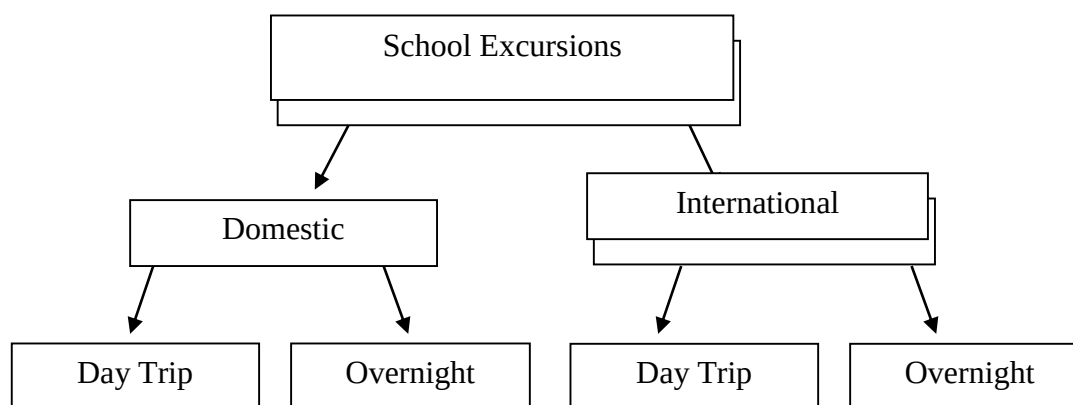


Fig: Types of School Excursions

According to ResearchGate, School Excursion/Tourism is a relatively under-researched and poorly understood segment of the tourism industry, particularly about its size and specific nature. Yet both domestic and international school excursions provide an important market for attractions, tour operators and accommodation providers. It says that although school excursions are not a major economic force for attractions, they can provide positive word of mouth and encourage future visitation for both students and parents and can also support off season visitation. Cooper notes the need, to understand the school excision market, including their motivations, needs, constraints and travel behavior.

Organizing Implementable Excursion to Obtain Optimum Result

School Activities (2024) agrees that school excursions are an exciting part of a student's learning journey and contributes to the development of well-rounded individuals who are prepared to navigate and thrive in an increasingly interconnected world. That meaningful travel experiences can have a lasting impact on student's personal growth, cultural understanding, and academic development. That though it sounds wonderful but, that the planning and organization of these excursions often fall on the shoulders of the teachers who are already time poor. It says that anyone who has ever planned an excursion will know it can be admin intensive and time consuming. According to school activities, planning a school excursion requires careful organization and attention to details. Therefore, it has listed some key points to help one get started as follows:

- i. **Determine the Purpose and Objectives:** School activities opines that you must clarify the purpose of the excursion and identify the learning outcomes or goals you want to achieve. That you must consider the educational value, relevance to the curriculum, and the interests of the students. Answering the questions will guide you on deciding on destination and duration of your excursion.
- ii. **Obtain the Necessary Approvals:** he states that you must seek approval from school administration, the relevant authorities, and obtain any required permissions. To him, depending on where you are going, there may be government rebates available to your school, so start to collate this information early, the approval process can take time.
- iii. **Set a Budget:** That you must determine the available budget and allocation funds for transportation, accommodation (if necessary), meals, entry fees, and any other expenses. That you should consider additional costs such as insurance or emergency contingencies.
- iv. **Choose a Destination:** That picking a suitable destination is not just about checking the weather or time of year but, more about researching a destination that aligns with the purpose and objectives of the excursion. To him, you must also consider factors such as distance, accessibility, safety time and educational opportunities.
- v. **Plan the Itinerary:** he suggests that you must create a detailed itinerary that outlines the schedule, activities, and timings. That you should include transportation arrangements, sightseeing spots, educational visits and any other relevant activities. That you may want to evaluate the balance between educational and recreational components. That you may want to consider this information for a parent presentation and compile an emergency list of services in the area.
- vi. **Arrange Transportation:** he says that you must determine the mode of transportation (coach, flights, or school transport) based on the distance, size of the group and budget. That you should make necessary bookings and ensure safety measures are in place. That

you may want to consider getting more than one quote, transport often accounts for a large portion of the excursion costs.

- vii. **Organize Accommodation and Meals:** That if an overnight excursion, you should arrange suitable school group accommodation, considering factors such as proximity to the destination, safety and affordability. That the accommodation will often include all meals for you but if not, you are to plan meals and dietary requirements for the duration of the excursion. He advises that you don't underestimate the time it takes to collate dietaries and rooming list because this is one of the areas that change frequently and updating your accommodation is important.
- viii. **Communicate with Stakeholders:** That you must inform parents, students, and teachers about the excursion details, including dates, destination, itinerary, cost and any requirements or restrictions. That you must obtain consent forms and collect necessary medical information from students.
- ix. **Ensure Safety and Supervision:** That you must develop a risk management plan addressing potential hazards and safety protocols. That if your school already has a template for this so check with the school administration. He says that you must ensure an appropriate ratio of supervisors to students and allocate responsibilities accordingly. That you should brief teachers and supervisors on safety procedures and emergency protocols.
- x. **Arrange Educational Activities:** That you must coordinate with relevant venues or educational institutions as schedule visits, workshops, or guided tours that align with the educational objectives. He advises that you specifically engage companies who specialize in organizing customized educational tours for schools.

Educational Importance of Excursions for Students

There are many reasons why educational excursions for schools are paramount for biology students. Tiktocs (2024) highlights the importance as follows:

1. They provide an opportunity for students to see things that they would not be able to see otherwise. For example, a student interested in history may visit a historic site that they would not be able to visit, if it were not for an educational excursion.
2. Educational excursions are indispensable for students because they allow them to learn about different cultures and customs. For instance, a student who visits another country as part of an educational excursion will be able to learn about the culture and traditions of that country. It can be a special experience for the student.
3. Educational excursions for schools are essential because they allow students to bond with their classmates. For example, a student who goes on an educational excursion with their classmates will likely have a better time and create stronger bonds with their classmates, than if they had stayed home.
4. They can be a great way to supplement the regular curriculum and help students learn in a more hands-on way. When done right, they can be enjoyable and enriching experience for everyone involved.

While Linkedin (2023) opines that educational excursions are important for biology learning because they provide students with opportunities to learn outside of the classroom which can lead to a variety of benefits, including:

- i. Cultural enrichment. That students can experience different cultures, traditions and lifestyles which can help them develop cultural awareness, empathy and appreciation for diversity.
- ii. Environmental awareness. Students can learn about the problems that can occur when the natural and artificial environment deteriorates.
- iii. Lifelong memories. Student can create memories that can motivate them for years to come
- iv. Social skills. Students can learn to respect each other's opinions, resolve conflicts and build relationships.
- v. Confidence. Students can boost their confidence through exposure to new experiences, challenges and responsibilities.
- vi. Creativity. Students can be exposed to unfamiliar environments, cultures, and situations that can stimulate their creativity.
- vii. Curriculum expansion. Teachers can expand the curriculum and offer students a more extensive range of learning experiences.

Educational Advantages of Field Trips

Vanthana (2024) identifies the following as the advantages of educational excursions:

- i. Real-world learning. Students can apply theories and concepts they have learned in class to real-world situations.
- ii. Lifelong memories. That students can create memories that will motivate them for years to come.
- iii. Social interaction. Students can bond with their peers and teachers and learn to open up and socialize.
- iv. Self-awareness. Students can develop self-awareness and learn to identify and understand their emotions.
- v. Critical thinking. Students can build critical thinking skills, as well as other skills like innovation, collaboration and communication
- vi. New interests. Students can discover new interests and be motivated to learn more about a subject.
- vii. Personal development. Students can develop independence, problem-solving skills and adaptability to new environment.
- viii. Empathy and tolerance. Students can become more empathetic and tolerant as demonstrated by a study of students who visited an art museum.

Disadvantages of Educational Excursions

Educational excursions can have some disadvantages as enunciated by Medium (2024) as follows:

1. Cost. That educational excursions can be more expensive than leisure trips, with costs including transportation, accommodation and program fees.
2. Time constraints. Educational trips can take up a lot of time, which can limit opportunities for other activities.
3. Academic focus. It can be difficult to balance academic requirements with the activities of an educational trip.
4. Logistical challenges. Organizing educational trips can be challenging, requiring coordination of schedules, managing group dynamics and ensuring safety and security.

6. Discipline problems. Students may be in a large environment than the classroom, which could lead to discipline problems.
7. Disappointment. The destination may not live up to expectations.
8. Lengthy duration field trips can be long, sometimes lasting the entire day or requiring students to stay over night
9. Danger. School excursions can be dangerous
10. Transportation issues. There may be transportation issues relating to school trips
11. Insurance problems. Insurance problems may arise.
12. Parents disappointment. Parents may not agree with the field trip activities.

Conclusions

Educational excursion is a modern science teaching method and is needed by biology teachers to enhance effective teaching and learning. Excursion should be designed to bring teaching and learning to life. In the classroom, students get theory and some practical applications in subjects such as information technology, science, the manual arts and catering. Well-planned and carefully executed excursions allow students to see their learning in real life situations and encourage them to put their theory and classroom lessons into practice. It gives the learning a sense of purpose and validity because the students can apply it in a variety of new situations.

Now that we are once again venturing outside of our own backyards, schools need to re-engage with their students in excursions that enhance their total learning experience, while still keeping the students safe and engaged in quality learning.

Recommendations

- 1 Biology teachers are advised to employ educational excursions and field trips to make students learn more.
- 2 All biology teachers should be encouraged to enroll as members of the Science Teachers Association of Nigeria (STAN) so that they could keep abreast of new developments in teaching strategies, science content and evaluation.
- 3 There should be inculcation of eagle-eye observation and careful planning by biology teachers to curb over excitement and lack of restraint during excursions.
- 4 Government and non- governmental owned schools should release funds adequate to sponsor organized educational excursions by teachers.

References

- Busboss (2024). Things-to-Consider-When-Planning and-Scheduling-field-trips. Retrieved on 20/10/2024 from <https://www.busboss.com>
- Linkedin (2023). Importance of Educational Excursions. Retrieved on 20/10/2024 from <https://www.linkedin.com>
- Medium (2024). Disadvantages of Educational Excursions. Retrieved on 20/10/2024 from <https://medium.com> / @learningfeet
- National Policy on Education (NPE)(2014). The Objectives of Teaching Science Education at Post-Basic Education. NERDC press, Nigeria.

Research Gate (2024) designs her types of school excursion as illustrated below:

Research Gate (2024) Understanding School Excursion Planning and Constraints. An Australian Case Study. Retrieved 20/10/2024 from <https://www.researchgate.net>

Research Gate (2024). Meaning of School Trip. Retrieved on 20/10/2024 from <https://www.researchgate.com>

School Activities (2024). Preparation Required for Organizing an Excursion. Retrieved on 20/10/2024 from <https://www.schoolactivities.com>

Scribd (2024). Classification of excursions Retrieved 20/10/2024 from <https://www.scribd.com>

Tiktocs (2024). The Importance of Educational Excursion. Retrieved on 19/10/2024 from <https://www.tiktocs.com.al>

Tiktocs (2024). What is the Aim of Excursion? Retrieved on 20/10/2024 from <https://www.tiktocs.com>

Tour Tools (2024) Definition of School Excursion. Retrieved on 19/10/2024 from <https://www.tourtools.com>

Varthana (2024). Advantages of Educational Excursions. Retrieved on 20/10/2024 from <https://varthana.com>