## **BEST PRACTICE-1**

## **MUSEUM WITH QR CODES**

A QR code, also short for '**quick response**' code, is a black and white, squareshaped image that provides access to more information quickly from their devices. Students can scan the QR codes with their smart phones to learn more about a museum spotters or service.

Most smart phones have the technology to read QR codes, which are built into their camera apps. Users will point the camera at the code, and an option to open the link will appear on their phone screen. Alternatively, you can download a QR reader through the device's app store.

As a part of the flagship program "Digital India " of the Government of India, to enhance the institutional quality the Department of Zoology decided to develop and update the department museum spotters with QR codes to digitalize the different spotters (Specimens, Slides, Models) of the department museum.

The objective of the museum with QR code system is to prepare Specific QR codes for each spot at the department level to get the basic information about the each spot to facilitate the easy identification and characters of the spots.

## Benefits of QR Codes

### They are safe

The pandemic has shifted the teaching, learning and evaluation of the students to online. QR codes enable teaching, learning process to provide their students with information, whether it's sharing the information for students to know in safely.

#### They are quick

Using QR codes is a great way to streamline the user experience and ensure students can access information as quickly and efficiently as possible. By scanning a QR code,

students can go straight to a landing page or check-in without having to speak to a staff member or ask for support.

They hold more data

QR codes offer a place to hold invaluable information for your Students. They can hold hundreds of encrypted data that translates into URLs, linking to landing pages, and sharing other materials.

## They direct students straight away

QR codes enable you to direct students straight to where you want them to go. Whether it's signposting them to a social media page or a promotional landing page, QR codes enable you to drive traffic to a specific part of your page without the student having to jump through hoops to get there.

They increase engagement

If one of your goals is to increase engagement on your website or a particular piece of content, then QR codes are an easy way to encourage users to engage with it. Users scanning a QR code indicate that the intent is already there to read and engage with the information.

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## **PREPARATION OF PRACTICAL MANUAL**

As a part of the flagship program "Digital India " of the Government of India, the Department of Zoology decided to develop the department practical manual with the museum spots available in the department. Through the digitalization of the different spots (Specimens, Slides, Models) of the department museum we enhanced the institutional quality.

The objective of the preparation of practical manual for each spot at the department level to get the basic information about the each spot to facilitate the easy identification and characters of the spots.

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The move to remote learning during the COVID-19 pandemic has forced educators to find new and innovative ways to deliver curriculum to their students. The **virtual field trip** has become a popular pedagogical strategy for connecting young people to enriching educational experiences from the comfort and safety of the classroom — or home. Over the past few years, virtual field trips have proven themselves to be a game-changer. Not only do they fill in for real field trips when our current reality prevents them; they also open doors to places that would have been inaccessible even in normal times. Although virtual field trips don't physically bring students to new locations, they make use of the web and video to amplify online learning in an experiential way. And at their best, virtual field trips can be transporting, informative, and inspiring.

Types of Filed trips

- Livestreaming means students watch a live feed from a camera in another location. Interestingly, these are most often focused on animals.
- **Interactive exploration** offers students a multimedia experience that's usually more hands-on and open-ended.
- Video visits take kids to a location (by video) where a host or narrator provides information.
- Scheduled and guided virtual field trips feature a live guide or museum docent -- often on site -- who takes students through the experience virtually.

One of the most exciting events in the traditional education system are field trips. Virtual field trips are a great way of engaging students in learning experiences in the real world. They help students find the relevance of what they learn. In addition, such trips improve their understanding and tap into new ways of learning while keeping students engaged and motivated.

A lot of logistical planning and coordinating goes into organizing field trips. Geographic and time constraints limit the opportunity of students to fully explore trips. Furthermore, in recent times, COVID-19 and the resultant lockdown have led to students losing opportunities to experience both traditional schooling and field trips.

Conveniently, technological advancements, interactive learning, and online resources have opened doors to offer real-time experiences to students despite the challenges associated with traditional field trips. Virtual field trips, specifically, offer opportunities to have real-world experiences at students' fingertips.

#### What is a Virtual Field Trip?

A virtual field trip is a guided exploration through the internet into places and experiences that are pre-screened and thematically based to provide a structured learning experience. Virtual field trips are an interactive and dynamic form of learning that is freely available, making access no longer a concern. With virtual field trips, students can study subjects and explore places to learn in realtime. They are also very cost-effective and less prone to risks associated with traditional field trips. It helps students make real-life connections by allowing them to go beyond book knowledge.

#### Scope of Learning through Virtual Field Trips

Virtual field trips are essential to modern-day classroom requirements. They can be applied to all subjects and personalized based on the abilities and performance of different students. Following is the scope of learning through virtual field trips.

#### 1. Range of Subjects

Virtual field trips benefit common subjects such as science, geography, and history. Students can witness outer space, nature, and micro-organisms, explore documented significant events in the past, and marvel at the works of famous artists.

A study with biology students demonstrated how 80% showed a highly positive attitude towards the educational value of virtual trips.

#### 2. Levels of Grades

Classes of all ages and levels can use virtual field trips. The only requirement is to pick the most suitable and tailor-made trip for the age group. Virtual field trips are specifically curated for different grades, age groups, and difficulty levels as well.

#### 3. Various Student Abilities

Traditional field trips might pose difficulties for students with physical and mental disabilities. Such students might tend to skip or might even be forced not to get involved in field trips resulting in not experiencing their benefits.

Virtual field trips are a way to extend inclusivity to students of all abilities. It provides the opportunity for students to experience real-life learning together regardless of their hardships. Moreover, they can explore content in the comfort of their classrooms or their homes.

# Benefits of Learning through Virtual Field Trips

## **1. Range of Experiences**

With virtual field trips, students can explore places they have not and might not be able to visit. School trips for elementary students are especially constrained by distance and time.

Virtual field trips eliminate such barriers and offer the experience to students of all ages. Such trips also expose students to experiences not common in their geographic locations.

### 2. Learning in Real-Time

Virtual field trips give students real-world experiences. Students get to connect what they learn inside the classroom with what is happening out in the world. This helps them understand how academic learning can be applied to solve real-world problems that they grapple with.

In addition, theoretical information can be compared with practical situations to make connections and develop students' critical thinking.

## **3. Educational Objectives**

Using virtual trips increases the quantity and quality of information that students obtain. Students have the freedom to pursue self-directed trips and can do it at their own pace. This makes lessons more memorable and presents clarity in concepts. A study showed that students who participated in science field trips scored better on science tests.

Virtual field trips expose students to the lives and worlds of people from different places and circumstances. This makes students more tolerant and empathetic. It teaches them how to have a different perspective about situations, people, places, and things around them. It contributes to the growth of their social and emotional skills.

## 4. Engaging Experiences

Traditional school trips are limited in the experiences they provide to students. Virtual trips provide experiences that students might not have access to in their geographical settings. They gain access to environments unavailable to them.

With virtual field trips, students can access the most recent, detailed, and diversified information from rich sources of materials and resources. Therefore, the experience of virtual trips reinforces academic concepts and solidifies learning.

Virtual trips are highly interactive. They give students complete freedom to navigate, wander, explore, and learn anything at any time. Students can also choose to visit and revisit topics of their interest at their own pace and interest. This makes them feel empowered and helps them be more motivated and engage in learning new information.

### 5. Equity in Access

Virtual field trips are not limited by distance, time, or money. They are freely accessible by all students on using the internet. The economic limitations of families and schools that cannot provide access to real-time experiences are remedied with virtual field trips.

Moreover, virtual trips include audio-visuals and kinesthetics and cater to all learning styles. They provide equal access to everyone, regardless of the traditional hindrances in access to experiences and learning, such as social, economic, physical, and other barriers.

#### **6.** Safety

Safety is always the first concern in traditional field trips. Despite the efforts of teachers, there are always chances of students getting lost or hurt on field trips. This prevents certain parents from sending their children on trips.

Virtual field trips alleviate the anxiety and worry that parents and teachers might feel about the safety of children. Virtual trips are completely safe and do not pose any risks or harm. With proper planning and internet filtering settings, teachers and schools can also easily ensure students' online safety.

#### 7. Reduced Workload for Teachers

Teachers put a lot of effort into planning, organizing, and executing traditional field trips. It comes with the risk of the safety of students and other uncertainties which may derail the trip.

Instead of going through such hassles, teachers can simply save a lot of time and reduce their workload by designing virtual trips. They can offer more to students while putting in less effort.

#### Conclusion

Virtual field trips are an excellent and powerful way of engaging students and providing them with authentic and real-time learning experiences. They, however, should not be standalone experiences, given that the goal is to integrate theoretical learning with practical knowledge and insight.

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Virtual field trips are an important form of futuristic learning. Being conscious about its goals and intentionally referring back to field trip experiences to enunciate lessons taught to children is the best way to enhance the benefits of virtual trips.

Virtual trips enrich learning by giving students access to real-life experiences. With future technology advancing at a fast rate, adopting and integrating virtual field trips into education can give a new, immersive life to lessons learned by students.

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