MAURITIUS DIGITAL PROMOTION AGENCY

Transforming Mauritius through Digital Excellence

Virtual Reality In Primary Schools (VRPS)

Project Document: Financial Year 2025/2026

1. Introduction:

Virtual Reality in Primary Schools (VRPS) project is an initiative of the Ministry of Information Technology, Communication and Innovation (MITCI), implemented by the Mauritius Digital Promotion Agency (MDPA) in collaboration with the Ministry of Education and Human Resources (MOEHR); the Rodrigues Regional Assembly (RRA); the Commission for Tourism and Others and the Deputy Chief Commissioner's Office.

The project is also supported by the University of Technology, Mauritius (UTM) research team via its Immersive Media Lab.

This innovative project seeks to elevate the standard of education by introducing **Immersive Virtual Reality (VR)** learning experiences to students of **Grade 4, 5, and 6** in **state-owned/managed primary schools**. The objective is to enrich students' conceptual understanding and foster higher engagement across key subjects, including Mathematics, Science, History & Geography, Health & Physical Education, and integrated components such as Citizenship Education, Values, Body Awareness, and ICT.

The project is designed for **phased-wise implementation**, beginning with a **Phase 1** involving **35 schools in 2025**, and expanding progressively until **Phase 5** to reach **226 schools by 2029**, inclusive of Rodrigues. It includes the procurement of VR headsets, capacity building for educators, and development of curriculum-aligned immersive contents.

Equipment Allocation per School:

Under the framework of this initiative, each primary school will be officially equipped with **one (1) VR headset unit**. This allocation is intended to serve as a shared pedagogical resource, managed by the school's administration and the ICT Support Officer (ITSO), to facilitate scheduled immersive learning sessions across the targeted grade levels. Despite the single-unit allocation per institution, the phased implementation ensures that the technology is integrated sustainably into the daily teaching environment, allowing for focused, high-impact educational interventions.

			Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
Projected Schools to complete			**35**	**45**	**50**	**48**	**48**
Zone	**Location**	**Total No. of State Owned Schools**	**FY 25/26**	**FY 26/27**	**FY 27/28**	**FY 28/29**	**FY 29/30**
1	Mauritius	**70**	**10**	**10**	15	15	20
2	Mauritius	**56**	**10**	**10**	10	10	16
3	Mauritius	**48**	**10**	**10**	10	10	8
4	Mauritius	**33**	**5**	**10**	10	8	0
5	**Rodrigues**	**19**	**0**	**5**	5	5	4
Total No. of Schools		**226**	**35**	**45**	**50**	**48**	**48**
		Status	**Completed**	**Schedule**	**Plan**	**Plan**	**Plan**

Practical Applications in the Curriculum:

To illustrate the utility of this technology, the following examples demonstrate how VR will be applied across various subjects:

- **Science:** Instead of just reading about the human body, students can "shrink" and travel through the bloodstream to see how white blood cells defend against viruses, or explore the solar system to observe the rotation of planets in real-time.
- **History & Geography:** Grade 5 and 6 students can take virtual field trips to historical heritage sites in Mauritius or explore the volcanic landscapes of the Piton de la Fournaise, providing a sense of scale and presence that a photograph cannot match.
- **Mathematics:** VR can be used to manipulate 3D geometric shapes, allowing students to "walk around" a cube or cylinder to better understand volume, surface area, and spatial orientation.
- **Health & Physical Education:** Students can engage in immersive simulations regarding **Body Awareness** and **Health**, visualizing the impact of nutrition on the body or practicing safety drills in a controlled, virtual environment.
- **Citizenship Education & Values:** VR scenarios can place students in "social dilemmas" where they must make choices based on values and empathy, fostering a deeper understanding of civic responsibility and community living.

Consolidated Project Overview:

The Virtual Reality in Primary Schools (VRPS) project is a flagship initiative of the Ministry of IT, Communication and Innovation (MITCI), implemented by the MDPA. Funded under the National Budget 2025/2026, the project will equip each of the 226 primary schools over 5 Phases whereby each school will be equipped with one (1) VR headset. This asset is expected to have a 7-year service life and will be cast to classroom projectors to ensure a collective learning experience for the entire class.

2. Project Objectives:

1. **Enhance Teaching and Learning Outcomes:**
   Introduce immersive VR experiences to strengthen students' understanding of key concepts across core subjects such as Mathematics, Science, History & Geography, Health & Physical Education, and integrated components such as Citizenship Education, Values, Body Awareness, and ICT.
2. **Promote Student Engagement and Motivation:**
   Foster greater interest and participation in learning through interactive and stimulating digital environments that make abstract concepts more tangible and enjoyable.
3. **Support Inclusive and Experiential Education:**
   Offer equitable access to advanced educational technologies across primary schools, including those in rural areas and Rodrigues, ensuring that no student is left behind in the digital transformation.
4. **Build Educator Capacity for Digital Integration:**
   Train and empower primary educators to confidently use VR tools and integrate immersive contents into their lesson plans, thereby modernising teaching practices.

5. **Align with Curriculum and National Priorities:**
   Develop and deliver VR content that aligns with the national primary curriculum, supporting broader policy goals in education, digital inclusion, and skills development.
6. **Instill Foundational Digital Skills and Citizenship:**
   Introduce students to safe and purposeful use of emerging technologies while embedding essential values such as responsible digital citizenship, environmental awareness, and cultural appreciation.

3. Our Stakeholders:

1. Ministry of Information Technology, Communication and Innovation (MITCI)
2. Ministry of Education and Human Resources (MOEHR)
3. Rodrigues Regional Assembly (RRA)
   - Commission for Tourism and Others
     Area of Responsibility: Technology & Telecommunications
   - Deputy Chief Commissioner's Office
     Area of Responsibility: Education (Administration)
4. University of Technology Mauritius (UTM)
   - Immersive Media Lab (IML) - UTM

4. The Hardware:

The **Meta Quest 3s** is the latest generation of all-in-one virtual reality (VR) headsets developed by Meta (formerly Oculus), designed to deliver immersive, high-fidelity experiences without the need for external sensors or a connected PC. It features pancake lens technology for a slimmer and more comfortable design, ultra-high-resolution displays (2064 x 2208 pixels per eye), and mixed reality capabilities that allow users to interact with both virtual and real environments seamlessly. Powered by the advanced Qualcomm Snapdragon XR2 Gen 2 processor, the Meta Quest 3 ensures smooth performance with up to 90 frames per second (FPS) and enhanced visual clarity.

The headset supports intuitive hand tracking**,** haptic feedback controllers**,** and spatial 3D audio, making it an ideal tool for interactive educational settings. With wireless functionality and ease of use, it is perfectly suited for classroom integration. As part of the Virtual Reality Programme for Primary Schools (VRPS**)**, the Mauritius Digital Promotion Agency (MDPA) will equip all state-owned primary schools with one Meta Quest 3 headset each over the next five years. These headsets will serve as a shared digital teaching aid to be used by all primary educators**,** enriching lessons with immersive, curriculum-aligned content and fostering deeper student engagement across key subjects such as Science, Mathematics, History, Geography, and Digital Citizenship.

5. Development of Immersive 3D Virtual Reality Educational Content for Primary Schools:

Under this project, five (5) curriculum-aligned, interactive VR educational modules will be developed for Standards IV to VI students for primary schools. Each content will bring complex educational concepts to life in subjects such as Science, History, Geography, Mathematics, Technology & Digital Citizenship, and Values & Body Awareness. The content will be designed for full immersion using Meta Quest 2 and 3 VR headsets and deployed via a web or mobile application developed in-house by MDPA.

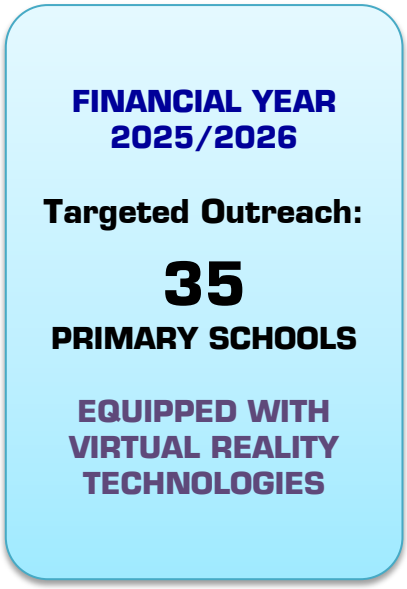
The objective is to make abstract or difficult subjects more engaging, tangible, and locally contextualised through VR, enabling learners to explore concepts like volcano formation, colonial history, cyclone preparedness, online safety, and fractions in real-life market settings.

The selected developer will be responsible for the end-to-end creation of each VR experience, including 3D modelling, scripting, voiceover, rendering, and integration support. All content will adhere strictly to technical and curriculum standards defined by MDPA and full ownership of source code and digital assets will be retained by MDPA for long-term use and adaptation.

This project represents a critical step in empowering students with future-ready learning experiences, reducing the digital divide, and supporting the country's national digital transformation agenda in the education sector.

6. VRPS FY 2025/2026 - Implementation Plan & KPI:

- **Duration:** July 2025 - June 2026
- **Coverage:** 35 primary schools (Phase 1)
- **Estimated Reach:** 10,500 students for the FY 2025/2026
- **VR Classroom Sessions:** At least 100 sessions
- **Empowerment:** 105 Primary Educators trained & certified in Education
- **Content:** At least 5 VR-aligned course modules developed



“Empowering Primary Students in Virtual Reality"

7. Training of Primary Educators
Empowering Educators for VR Integration in Classrooms:

As part of the implementation of the Virtual Reality Programme for Primary Schools (VRPS), the **Training of Trainers component** is designed to ensure effective classroom integration of VR technology. Selected **primary educators will participate in intensive 2-day capacity-building workshops**, where they will learn how to operate the Meta Quest 3 devices, manage a VR-enhanced classroom environment, and deliver curriculum-aligned content using immersive educational tools. These workshops will be both practical and interactive, equipping teachers with the confidence and skills needed to maximise student engagement through VR. Upon successful completion of the training, each participant will receive a **Certificate of Attendance in VR Education**, formally recognizing their readiness to serve as digital teaching ambassadors within their respective schools.

▪ 2-Day VR Training Programme for Primary Educators

Day	Module	Topics Covered	Learning Objectives	Session Outline
Day 1: Getting Started with Meta Quest 3s and VR Fundamentals	Module 1: Introduction to Meta Quest in Education	- Benefits of VR in classrooms - Impact on cognition and engagement - Curriculum-aligned use - Safety & screen time	- Understand VR benefits in primary schools - Identify immersive opportunities for Grades 4-6	- Presentation on educational impact - Discussion on curriculum integration - Group brainstorming activity
	Module 2: Meta Quest 3s Device Setup	- Unboxing device - Adjusting for children (IPD, straps) - Cleaning and charging safety	- Familiarise with headset hardware - Ensure comfort and hygiene for students	- Unboxing & hands-on setup - Comfort adjustments - Hygiene protocol demonstration
	Module 3: Meta Accounts & Device Management	- Teacher/classroom accounts - Managing multiple users - Privacy and ethical use	- Create/manage Meta accounts - Apply classroom privacy protocols	- Account setup demo - Troubleshooting profiles - Q&A on safety and data
	Module 4: Navigating the Meta Quest Interface	- Home navigation - Launching apps - Voice commands & hand tracking	- Navigate VR interface - Use apps and built-in tools	- Guided walkthrough - Hands-on interactions - App usage simulation

Day 2: Integrating VR into Classroom Practice	Module 5: Casting & Classroom Management	- Casting to various devices - Troubleshooting issues - Demo to large groups	- Share VR experiences effectively - Conduct engaging demos	- Live casting demos - Troubleshooting practice - Best practice discussion
	Module 6: Pedagogical Integration Strategies	- Lesson planning with VR - Sample modules: science, history, health - Student rotation - Hygiene routines	- Design VR-integrated lessons - Manage devices and student flow	- Lesson planning workshop - Rotation simulation - Role-play scenarios
	Module 7: Evaluating & Supporting Student Learning	- Worksheets & peer discussion - Student feedback methods - Inclusive VR strategies	- Evaluate student learning - Adapt VR for learning needs	- Review sample tools - Create quick assessment tools - Group inclusion strategy discussion
	Module 8: Advanced Tools & Educator Resources	- Meta tools & communities - Recommended VR apps - Requesting content from MDPA	- Access educator resources - Choose quality apps for learning	- Demo of Meta tools - App showcase - MDPA feedback channel walkthrough
Final Task & Certification		- Mock VR lesson delivery - Peer and facilitator feedback - Certification & feedback	- Practice lesson delivery - Receive feedback - Get certified	- Simulation teaching - Peer review - Certification distribution
Training Outcomes		- Confident VR use - Classroom integration - Curriculum alignment - Basic assessment tools - Ongoing educator support		

- **VR Contents Upper Primary**

1. Volcanoes of Mauritius – The Sleeping Giants

Subject	Science
Target Group	Upper Primary (Grade 4-6)
Duration	1 to 1.5 minutes
Platform	Meta Quest 2 / 3, Mobile App (Android & iOS)
Language	English (voiceover)
VR Experience Summary	Begin in the lush forests around Trou aux Cerfs, and then travel deep underground to explore how magma builds up pressure beneath the Earth's crust. Watch a simulated volcanic eruption — see lava rise, gases escape, and ash clouds form. Then fly above to see how lava shapes the land over time.
Local Context	Visit Trou aux Cerfs in Curepipe and Bassins Blancs in the Black River region. Learn how Mauritius' island was formed from repeated volcanic eruptions millions of years ago. See how volcanic soil supports farming like sugarcane and pineapple plantations.

2. Colonial Mauritius – A Walk Through Time

Subject	History / Social Studies
Target Group	Upper Primary (Grade 4-6)
Duration	1 to 1.5 minutes
Platform	Meta Quest 2 / 3, Mobile App (Android & iOS)
Language	English (voiceover)
VR Experience Summary	Travel back in time to 18th-century Port Louis. Explore a working sugar estate, walk through slave quarters, and visit Aapravasi Ghat. Witness how colonial rule shaped the island and contributed to modern Mauritian society.
Local Context	Explore Port Louis' historical landmarks and understand the role of Aapravasi Ghat in the indentured labour migration system. Experience how colonialism impacted today's multicultural society.

3. Weather and Climate

Subject	Science / Geography / Citizenship Education
Target Group	Upper Primary (Grade 4-6)
Duration	1 to 1.5 minutes
Platform	Meta Quest 2 / 3, Mobile App (Android & iOS)
Language	English (voiceover)

VR Experience Summary	Experience the formation of a tropical cyclone and its impact on Mauritius. Explore the water cycle and learn emergency preparedness actions before and during a cyclone alert.
Local Context	Focused on the Mauritian cyclone season, the module helps students understand the island's vulnerability and resilience. Includes local emergency procedures and weather terms.

4. Internet Safety & Digital Responsibility

Subject	**Digital Citizenship / ICT / Life Skills**
Target Group	Upper Primary (Grade 4-6)
Duration	1 to 1.5 minutes
Platform	Meta Quest 2 / 3, Mobile App (Android & iOS)
Language	English (voiceover)
VR Experience Summary	Students are immersed in a simulated online world with interactive choices. They learn digital safety, kindness, and responsibility in real-time online scenarios.
Local Context	Addresses issues relevant to Mauritian children such as screen time, mobile use, and exposure to social media. Promotes safe online habits aligned with Safer Internet Day themes.

5. Fractions and Decimals at the Market

Subject	**Mathematics**
Target Group	Upper Primary (Grade 4-6)
Duration	1 to 1.5 minutes
Platform	Meta Quest 2 / 3, Mobile App (Android & iOS)
Language	English (voiceover)
VR Experience Summary	Step into a vibrant Mauritian market to learn how fractions and decimals are used in everyday contexts like buying food and calculating change.
Local Context	Set in a local market scene such as Port Louis or Flacq, including familiar foods and prices. Reinforces the relevance of math in daily Mauritian life.

Overview of our Digital Platforms and Emerging Technologies

Corporate Website

The Mauritius Digital Promotion Agency (MDPA) invites you to explore its corporate website, which serves as a comprehensive portal for information on ongoing initiatives, strategic priorities, and public engagement.

MDPA – Official Website

Virtual Reality in Primary Schools (VRPS)

Our flagship outreach initiative, VRPS, brings emerging technologies awareness directly to communities across Mauritius.

Emerging Technologies in our Digital Lab

1. Virtual Reality (VR)

Through platforms like Meta Quest, we introduce immersive learning experiences designed to enhance engagement and understanding in both educational settings and public awareness campaigns. This initiative is carried out in collaboration with the Immersive Media Lab (IML) of the University of Technology, Mauritius.

Immersive Media Lab (IML) – UTM

Meta Quest – Virtual Reality

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