**PACT analysis**

**People:**

* **Children: Aged 6-12, varied tech familiarity.**
* **Parents/Guardians: Assisting children.**
* **Museum Staff: Providing technical support.**

**Activity:**

* **ExploreWithAR: Children explore using AR to view dinosaurs.**
* **ScanWithMarkers: Children use TUIO markers to trigger sound + 3D model.**
* **RotateDino: Children use gestures to rotate dinosaurs.**
* **SwipeDino: Children use gestures to change the current Dino.**
* **ShowInfoDino: Children use gestures to show more details on Dino.**
* **PlayMiniQuiz: Engaging in mini-games and quizzes.**
* **CompleteFeedback: Providing feedback.**

**Context:**

* **Physical: Museum exhibit area, suitable for AR, marker scanning, and gestures.**
* **Social: Family or school group visits, encouraging collaborative learning.**
* **Organizational: Enhancing educational offerings with technology.**
* **Technical: Reliable Wi-Fi, user-friendly interface, and device compatibility.**

**Technology:**

* **Hardware: Smartphones, tablets, camera, screen.**
* **Software: Python (backend), Unity (AR), TUIO library, and mediapipe + DollarPy.**

**Scenario: -**

1. **User (Children) open app using mobile phone.**
2. **Sign up for new users.**
3. **The system recognizes face to sign in users.**
4. **Users choose one of the 3 options to learn (TUIO Markers, AR, Gestures).**
5. **Users attempt a quiz to test information and increase their score.**
6. **Users provide feedback at the end.**