**PACT analysis**

**People:**

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

**Activity:**

* **ScanWithMarkers: Children use TUIO markers to trigger sound + 3D model.**
* **SwipeDino: Children use gestures to change the current Dino.**
* **DispllayInfoDino: Children use gestures to show more details on Dino.**
* **PlayDinoSound: Children listen to sound of each dino when it show up.**
* **RecognizeGestures: Camera detects defined gestures to control system.**
* **ShowDinoModel: As user choose one of the mechanisms Dino model show up.**
* **RecognizeFace: As app start up it recognize user face.**
* **ExpressionRecogize: As long as app running it takes feedback from the user face.**

**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.**
2. **The system recognizes faces to take user feedback automatically.**
3. **Users choose one of the 2 options to learn (TUIO Markers, Gestures).**