## **Evolution from Last Year**

* Previously: Just following tutorials from sphero edu
* Unit lacked a 'theme' or overall context
* Attempted to add relevance through localization (e.g., electric vehicles in Hanoi)
* This year: Packed with concepts and skills
* Built-in sensors showed devices as more than gaming tools
* **Uncertainty:** How much actually sunk in as students went through lessons?

## **Student Maturity & Big Picture Thinking**

* Not sure students had general maturity to see bigger picture
* Sensors demonstrated real-world device applications
* Conceptual understanding vs. skill execution gap

## **Term Structure Issues**

* Long term broken up by school events
* Basic skills lost by end of term
* **Hope:** CoSpaces experience means students returning to concepts rather than learning first time

## **Deployment Challenges**

* Partner work arrangements problematic
* Spacing issues for certain projects
* Logistical concerns impacted learning e.g artist looping pens etc

## **Ideal Vision (Time Permitting)**

Multi-week integrated project approach:

* Come up with original idea
* Design a logo in Canva
* Film the program
* Create product pitch
* Get deeper buy-in through ownership

**Reality Check:**

* Students likely lack "grit" or sustained desire for this
* Timetable/attendance always creates problems

## **What DID Work: Lesson Flow**

* Clear structure: "This is today's concept"
* Progressive complexity: Apply previous + new concept
* Example progression: if blocks → if blocks w/sensor → if blocks w/sensor stored in variable
* Predictable, scaffolded approach

## **The Complexity Problem**

* **Complexity = student drop off**
* All students could: make Sphero spin, play sound, change color
* Not all could: combine skills or uplevel
* Gap between basic execution and integration

## **Assessment Insights**

* Easier to identify learning through summative quiz
* **Hard to get:** self-evaluation or reflection on learning