**Teacher collaboration (motivators)**

Where teachers collaborated better, students found easier/more enjoyable. Help support and give advice to students about what to do

Gave examples, helped better situate their assumptions of what kids capable of

Pedagogy experts with something to share, not seen as somebody needed to help, but instead as equal partners. Perhaps a solution to the deficit model approach?

“Once people really decide they don’t care it become impossible”

**Poor facilitator communication (barrier)**

Schools/students not sure of expectations, not sure what each told. Need to make process more transparent? Communicate expectations of each person involve? Maybe some sort of “charter” that describes their role, what expected of them?

**Academic conflict (Barriers?)**

Students concerned that project in the way of exams/deadlines

Students not wanting to be do work in university holidays

External to existing university work, seen as an extra voluntary thing, but means plays second fiddle to uni/real life

This project was seen as “being in the way” of normal life, could be a barrier to motivation and sustained outcome. How can we design this to mean that it isn’t in conflict? Design in response to these conflicts and base on motivators?

**Developing skills**

“A change is as good as a rest”

Students developed new strategies to teach, having the opportunity (no previous experience) had them adapting to situations to best approach situations, adaptability

Idea of what life like after university

Communicating and presenting ideas to non-technical audience (need to look at exactly the kind of skills needed for employability/social well-being). Improved skills.

However, at the minute, no current formalised way for students to really reflect on the skills they’d gained. Maybe some sort of portfolio? Pre-post test? Was a missing part of this process?

Seen improvement across the lessons in ability to adapt and present, usually seen as becoming “easier”

**Responding to the brief**

**Topic not interesting/should be important**

“More like a performance”

Students not sure what expected, no previous experience and no examples to draw from. Too open, and without direction, students managed to come up with ideas but spent longer than necessary.

Make relevant topic! Students did not find Dr Who as engaging, not many really watch BBC shows, so the topic was not as engaging as it could have been. Students found it difficult to respond to the brief without knowing much about the content. (Maybe bring in idea of student commissioning? Could I bring in the idea of QFT lesson in response to this, as a method of what students were interested in pursuing? And then bring teacher interviews in regards to what they needed/wanted help with, the sorts of things they might commission? E.g. interest in developing a car PBL based scheme of work?

Not too overfacing, not lesson plans, too specialised and might turn people off. Instead need structure

**Practicalities of teaching**

**Long term pupil engagement**

Issues with knowing how to time the subject, and what pupils capable of

Knowing what a suitable level to break information down to, students have learned across extended period of time, so how abstract can they go?

Worried about the long term impact and what pupils are taking away from this experience, want it to be useful to them, more focus on computational thinking and not just on completing a project

**Self-reflection**

“The mayor of London doesn’t need to be a good programmer” why are students doing this? How can promote more nuanced self-reflection? Maybe to do with transparency?

**Gauging pupil ability**

Students not sure what Year 8s capable of, or previously covered. No students had access to this population to design for – but is it not like “first wave of HCI” where designs were based on assumptions of need, and not on need itself? How can we bring in more HCI relevant ways of working to the gauging of pupil ability?

**Assumptions of teaching kids**

Students thought kids would be slower

Found hard to gauge abilities, found students got things easily, or got stuck on something really easy. Didn’t know how to gauge, and just looking at expected “levels of achievement” like the National Curriculum was still difficult to know what exactly was required.

**Talking to pupils**

Being more hands on and talking to class helped better develop resources, helped to gauge students as whole and individual ability, know how to tailor resources when delivering. Liked being “hands-on” with the kids, gave them better understanding od the level they’re at

**Shadowing**

Students felt shadowing would give better idea of what students capable of, and how to tailor resources, have opportunity to talk to students and teachers.

**More info to taking part**

**No previous experience of microbit**

**Technical skills**

**Want more hands on**

Students want more info to take part, low risk ways to learn about the hardware. Barrier for some students who had no previous knowledge of microbit, felt like they didn’t have to get involved. To extraneous.

When did a practical, it wasn’t seen as a help, because students felt like it had no pra

Students enjoyed learning new technical skills, as introduction to “new technology”

First year practical was not hands on enough, need to make importance of learning new technology more evident.

**Responsibility**

“Blame a person and then what happens?”

Unclear of where responsibility lies in the situation, largely referred back to the facilitator

|  |  |  |
| --- | --- | --- |
| **Theme** | **Overview** | **Subtopics** |
| **Transparency of the scheme** | Making the process more transparent to the students and teachers and make clear what is expected of the content they delivery, the way the deliver it, and the ways they must collaborate. What is student responsibility, what is teacher responsibility, what is facilitator responsibility, what is commissioner responsibility | Unsure about equipment |
| School practicalities |
| Responding to the brief |
| Poor facilitator communication |
| Issues with commissioner |
| School need communication |
| Student responsibility |
| **Collaboration between participants** | Collaborating amongst themselves as a group, sharing ideas, very helpful. When teachers were engaged and collaborative, always helped the delivery of lessons and what students pupils got out of it. Having instant forms of communication helped to communicate and support ideas in the student group | Collaboration within the student group |
| Teacher collaboration |
| Instant informal communication preferred |
| Topic not interesting/should be linked to |
|  |
| **Preparation for students** | Students unsure of how to gauge pupil ability and had assumptions about teaching kids. Found that being more hands on helped, but there wasn’t much opportunity in the class. Can shadowing help students prepared for the practicalities of delivery? Help reduce anxieties about deliver Schools and pupils should also be more involved | Gauging pupils ability |
| Assumptions of teaching kids |
| Hands on helped |
| Shadowing |
| Difficulty/Practicalities of delivering |
| Anxieties about involvement |
| **Barriers and motivations to participation** | Scheme had conflicts with academic and life commitments, as the project was outside of normal uni life. Made some people reticent. However, good opportunities for civic/university/life skills. How can we remake? | Conflicting with academic commitments |
| Conflicting with life commitments |
| Civic opportunities |
| Employment opportunities |
| Employment opportunities |
| Developing interpersonal skills |
| Developing technical skills |
| **Facilitating engagement** | Want low-risk introduction to scheme, ways to learn about hardware and what scheme is about, with practical applications. Students had no previous knowledge of hardware, and wanted more help to think about to encourage longer-term reflection/engagement in pupils, and how to encourage self-reflection in the students, so they can understand what they’ve done | Wanting more information about the scheme |
| More practical hands-on take part |
| No previous knowledge of hardware |
| Long-term pupil engagement |
| Self-reflection |