Flipping the teacher: A teacher/student tech club

Narrative

The schools realised that teachers and students shared many common needs when it came to skills development with 21st century tools. Rather than the teachers dealing with their personal development (PD) needs separately and in isolation from the students, the school brought teachers and students together to learn under an umbrella of whole school development.

Students who believe they can offer leadership or insight in a useful technical area are encouraged to publicise their skills with a poster about themselves on a "skills bank" and become "TechTutors" who are then available to be assigned to either a younger student group or a teacher or class that wants to develop that skill set. The TechTutors are also encouraged to work with the teachers at the lesson planning stage suggesting how they might harness technology to assist in the delivery or assessment of the lessons.

Some teachers find the student "skills bank" a really useful tool as they can go to it to ask the students for assistance at any time when they have new ideas they want to explore. They find that this is a lot more positive than admitting they need help to colleagues or management. Advanced and willing students are encouraged and provided specialist training in IT and networking areas using curriculum developed by CISCO, Intel and others. The intention of the school is that they are far more self-sufficient for general IT support and development. Visiting technicians are actively encouraged to share their skills with students and TechTutors are given time to "shadow" workers coming into the school to observe their skills and ask questions.

As the school runs a staggered school day, TechTutor students are also available on a rota in break times to work directly in the other classes they support on one or two occasions each week.

Every other weekly staff meeting is devoted to the development of the "learning family". Older students act as coordinators working with the head teacher or department leaders to identify and organise appropriate PD for teachers that they deliver in an after school club type environment. Students from each class are encouraged to join in the evening staff PD sessions with their teachers to encourage more TechTutors. The school also works with a local IT training company who provides student TechTutors with a basic IT competence qualification.

Key concepts

- To provide an integrated and collaborative set of educational tools and services that glue together the class environment of people, interactions, content, activities and technologies to improve the productivity of learning for students and the productivity of instruction for teachers.
- This includes methods to enable the management and assessment of personalized and collaborative learning.

- The proposition covers whole class, group and individual learning through automation, integration and orchestration within all classroom environments, collecting and reporting real-time data collection/feedback at the Point of Learning together with anywhere anytime learning beyond the classroom.
- Providing the platform for software and services that support personalized learning in the context of the classroom building up to system-wide management of devices; content and assessment data.
- Developing the tools, services and interfaces adding education value to the individual user and community experience.

Environment

- School – in lessons and in after school training sessions

People & roles

- Students – as teachers, mentors and facilitators to other students and teachers
- Teachers – as co-designers of courses with students

Interactions & pedagogical activities

- Students become TechTutors and work with teachers and other students to integrate technology more effectively into the school
- Teachers and students share personal development time

Resources & technologies

- There are an increasing number of applications for tablets becoming available. Most have guidance on how to use them with an emphasis on the activity however understanding how the application will improve learning is much harder and less explored and documented.
- Applications categorised through stages of Knowledge Transfer, Knowledge Sharing, Knowledge Communities. The following 28 categories have been proposed in by http://mgleeson.edublogs.org based on the pedagogy wheel: Presentation tool, Collaboration tool, Writing tool, Reading tool, Brainstorming, Mapping tool, Information collection, Information organising, Note taker, Research tool, Data collection tool, Role playing tool, Class management tool, Assessment tool, Video creation, Audio Recording, Book creation, Publishing, Digital Storytelling, Debating tool, Experimenting tool, Calculating tool, Demonstrating tool, Communication tool, Artistic tool, Designing tool

Promethean EOS with Windows 8 platform allows for the following learning modalities in the classroom;

- ActivTable for collaboration;
- Engage 2 for real-time assessment;

- Microsoft Surface tablet for personalisation;
- Management and Assessment of personalised and collaborative learning
- Whole class, group and individual learning
- Integration and orchestration within the classroom environment
- Learning beyond the classroom, anytime, anywhere with the Microsoft cloud

The Future Classroom Scenarios have been developed as part of the EC-funded iTEC project (FP7; 2010-2014). The Find more Future Classroom Scenarios in the Future Classroom Lab website (http://fcl.eun.org/directory) and learn how to create your own scenarios by using ***the Future Classroom Toolkit*** *(http://fcl.eun.org/toolkit)*