

Inspiring Tomorrow's Leaders: moving from a computing to a digital media curriculum

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Background

In this paper we describe a the first year of a Continuing Professional Development (CPD) programme for a secondary school in the North East of England. In this deprived area the teachers wanted to consider changing from the existing Computing curriculum to Digital Media. The reasons for this was the lack of popularity of Computing with the students and the problems of staffing this new course as so few teachers had experience of Computing Science.

The design team was lead by:

- a school leader focusing on CPD;
- a university CPD consultant who was an expert in practice-based research;
- the supporting company representative who had had a long history as an education advisor particularly an understanding of innovation in teaching and learning.

The leaders designing the CPD programme took careful account of the principles of the DfE Standard for Teachers' Professional Development (2016) in which effective teacher professional development is seen to be a partnership between: head teachers and other members of the leadership team; teachers; and, providers of professional development expertise, training or consultancy. In this project a fourth partner was added to the core team: the resources, support and guidance of a company that was developing multimedia and 3-D assets for schools and researching their value in teaching and learning.

The DFE report suggests that in order for this partnership to be successful professional development should:

- have a focus on improving and evaluating pupil outcomes;
- be underpinned by robust evidence and expertise;
- should include collaboration and expert challenge;
- should be sustained over time.

The DFE document continues to say that all these point are underpinned by, and require that professional development must be prioritised by school leadership (DFE 2016).

This practice based programme required the CPD consultant to work with teachers as co-researchers to define, measure and report on the impact of innovation on learning. In this process the teachers, working with all key stakeholders, identify what they want to gain from their investment in digital technologies in terms of evidence of learning. Crucial to success is the methodology of collecting of evidence of learning in the classroom and the ability to measure the impact of implementation. To be really effective the programme should last three years.

The expected outcomes that were planned for the three years were to:

- Effectively deliver a cross-curricular project which brings together skills across the visual arts to produce creative digital media;
- Secure improved staff confidence with ICT as a tool for learning and teaching;
- Improve student engagement through creative production using digital technologies;
- Deliver an event that showcases the project, promotes uptake of digital media courses in Y10 and impressed the parents with the potential for vocational opportunities.

The methods used to collect the data in this first year about teachers, students and parents responses were a series of questionnaires that have been analysed along with interviews with teachers, students and parents. These research tools will be refined as the project develops.

Context: reinterpreting ‘Blood Brothers’

Learning & Teaching Activities

This comprehensive project, one of four taking place, involved pupils and staff across several departments and a whole year group. In preparation some students had visited the company studio and enjoyed working one to one with specialists, working with new technologies and being creative in their own right. What this company partner provided was a unique training and support opportunity for both students and teachers in innovative digital products:

- training for staff on use of apps and software;
- remote support during development stages;
- in class support for asset production;
- support for editing, production and presentation that included a suspended timetable for 2 days.

Another key input from the company was the planning of a project that relied on application of a linear process to create the product i.e. the green screen videos. Thus the project had to run over an extended period, nearly five months. It was also a multi-disciplinary project and so involved teachers from four subject disciplines. The students undertook the work in standard lessons, in all cases except the suspended timetable ‘final production’ day.

The lessons focused on the study of Blood Brothers script and the creation of various assets by different groups. Each group was to create a storyboard. ‘What if?’ scenes were developed using apps on the iPad (Adobe Voice and Slate). The students were then to video performance of the scenes against ‘green screen’. A pilot was conducted using iPads and the finished shoots used camera and tripod. Clips were exported in appropriate file formats for later editing. The pupils also had to specify the digital backgrounds that might form a set for the scenes.

Several subject groups were involved. The music group developed movie score clips that can be used in the scenes using GarageBand: Gaia provided training and the music produced therein was used for the soundtracks. In Design and Technology the students produced digital backgrounds to specification using Photoshop for editing, production and presentation. When the groups of pupils were gathered together they evaluated the digital assets, brought them together and produced videos. Sometimes they animated drawings and presented in an appropriate digital format. The Art department very much focused on the use of Photoshop and manipulating images. The teacher preferred this method which fitted better with his skill set and the type of pupil he was working with — the pupils liked the layering effects and professional finish they could produce. This work has been sustained in the schools and will be used across the Art, D&T and Media department in the future — along with Motion and the green screen facilities.

After two terms they presented their work to audience at choices evening in March. In order to bring all the stages of asset production together the company agreed to run a supported final production day. The timetable was suspended for the classes involved. This was essential as the editing process required interaction of all the asset development classes and also extended time in order to learn the software and move to production. The students can enjoy revisiting the final production day as the company made a video of the event.

Discussion

Overall the Digital Media pilot across four subject, drama, design technology, art and music went much as planned although the complexity of what was requested was very challenging and demanded significant planning input and coordination from the company team. Ultimately, the digital media project should be viewed as being highly ambitious and carrying a significant risk of failure. It did, however, succeed because of the immense commitment of the individuals involved, including the students.

Reasons for the comparative success of the Digital Media project were several. The project was collaboratively co-planned by the company’s lead professional working with a group of teachers. The project design was based upon an analysis of how content, pedagogy and

technology might interact to provide students with an innovative learning experience. In addition all participants, including company's on-site engineers, were well briefed and the sharing of information was good, primarily because of the internal school leadership of the project. The programme leader and co-researcher, was highly committed and was able to enthuse the team members even though they changed during the project. The students were generally very keen on this approach and, therefore, well behaved and engaged throughout. They especially appreciated that they had more freedom to move around on the final production day and learn from each other.

The adaptability of the team and response to needs was also crucial. A key learning stage of the project was, in fact, precipitated by a crisis in confidence, caused by a teacher's lack of skills with Photoshop. The initial training proved insufficient to mitigate this and subsequent lessons did not proceed well, as students lost confidence and experienced failures. The response was to schedule an additional workshop but this time involving the teacher and around eight of the more digitally literate students in the teaching group. At this session, the company's Adobe apps specialist trainer took the group through the process of modifying images using filters. The aim was to enable the process for creating digital backgrounds for the videos that set the mood of the scene and also to develop the capacity of the students to support their peers with use of the software. This workshop was observed to be highly effective, it removed the 'trip wire' that could have stalled the project and accelerated both the teacher and students' skills with Photoshop.

Conclusions

The baseline survey showed that the position at this school regarding staff skills, confidence and patterns of use is not atypical. However, the survey does suggest that considerable work needs to be undertaken to skill the Academy workforce and boost confidence to use digital tools regularly.

Experimenting with a practice based approach to professional learning the leaders found from year one is that this works best where a group of teachers are engaged with an extended project that is centred on an appropriate content focus. The Digital Media Project exemplifies this. Furthermore, the observation that the biggest innovations have resulted from the adoption of group work and collaborative learning strategies reinforces the core team's belief that the full potential of educational technology cannot be unleashed unless pedagogy is diversified.

Collectively the school, the CPD consultant, the company and participants posed four questions that they wanted to answer through the practice-based research process. At the end of the first year CPD programme some partial answers can be given. Full answers will only emerge over the next two years, as a result of applying learning to date, sustaining the programme and improving collection of data to prove impact.

The first question was, how should we motivate teachers to be co-researchers and so aid evaluation of project impact. At this point in time only one teacher has fully engaged. Other teachers were, in fact, pleased to contribute to the research providing data and giving interviews. However, time and work pressures have made the teachers reluctant to take on

leadership of the research activities. This, in part, could be improved through a proper strategy to incentivise, recognise and reward staff who lead and research professional development projects. From the outset this outcome was not successfully achieved although the team have demonstrated how crucial the internal leadership of projects is to their success. Similarly, the practice based research role is critical to evaluating initiative impact and capturing learning about process. At present the role has been reliant on one teacher and, a higher than expected input from the company and the CPD consultant. As a consequence of the lack of a teacher research team, data collection has not been as rigorous as it might have been.

The second question was from the Senior Leadership Team who were interested in discovering if the teachers learned more effectively through supported projects, compared with traditional ICT training. Anecdotal evidence emerged that the participants have preferred this tailored approach rather than traditional methods. This effect has not been measured yet but would form an important element in the next stage if more teachers are enthusiastically engaged. The parents and students certainly saw this as an insight into work in this field that would have vocational value.

The third question was how can we increase the use of technology as tool for teaching and learning? Additional information was required on this topic about how teachers can be encouraged to increase the use of technology as tool for teaching and learning. The evidence suggests that to drive this forward there must be sustained leadership, as evidenced by clear policy, strategy, leverage of support and inclusion of digital tools in the performance management process.

A fourth question was what strategies can be used to diversify pedagogy? The digital media project has clearly demonstrated the power of project based CPD to help diversify pedagogy and the students were witness to the benefits. The Creative Digital Media project has also demonstrated how it can be an effective approach to improving student engagement and raising standards. In the next phase the school can examine more thoroughly the way digital tools can enrich project-based learning, can deliver subject learning and simultaneously develop key skills, especially literacy and digital literacy. What is now required is the design of innovative measuring tools, perhaps with input from the students.

In this first year it is more likely that the participants will want to pose more questions based on what they have learnt than be able to answer the ones they set at the start of the year. However, the core team concludes that the approach has real potential to help improve the collective knowledge of the staff about implementing digital technologies across the curriculum. The introduction of the Creative Digital Media Curriculum appeared to be an important step for the school and could reasonably become the engine that drives use of digital tools for the school as a whole. Four groups were formed for Digital Media and the whole options evening was built around the launch of a technology based curriculum. This appeared to be the place where genuinely innovative use of the tools and development of staff and student expertise could happen. Additionally, the adoption of the virtual learning environment (VLE) in the second year and the development of its use through a task group of VLE champions was another model, whereby a tool that should be used by everyone was about to be implemented through collective effort. So, the overall conclusion

of the leaders after the first year was that the staff were in a good position to build and develop the programme because staff and pupils confidence had been built up.

However, as the second year started a change of head, the loss of two staff and the appointment of a new head of art who does not support technology in art led to a lack of continuity. The CPD programme and the support from the company was halted because of lack of funds and as a result the feedback from pupils is that they are not enjoying the Digital Media course in the second year because the staff were not confident to run it as they had no on-going support.

This example provides a cautionary tale about sustainability in UK schools when funding for CPD is being reduced at the same time as a new and overloaded curriculum is being introduced that leaves little space and money for this kind of innovation. In beginning this kind of blue skies thinking it is clear that teachers need the support of a committed head teacher and senior team if effective CPD is to be a reality. If not it is the pupils who are the most disappointed in the end.

References

UK DfE Standard for Teachers' Professional Development
(2016) <https://www.gov.uk/government/publications/standard-for-teachers-professional-development>