Animation in Education
Its impact on Learning, Literacy and Creativity

A Creative Partnership Research Project

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Animation in Education:  
Its impact on Learning, Literacy and Creativity

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Introduction

Animation is simply everywhere!

Animation is one of the most prominent aspects of popular culture worldwide. It informs every aspects of the visual terrain that surrounds us every day. It is most likely that the 21st Century young people are interested in and engaged with the visual dynamic of popular culture, comics, graphics novels, anime, pop promos, advertising, websites, tv, movies and modern art. This report identifies the valuable part animation can play in enhancing literacy, learning, and visual creativity amongst pupils of all ages. It also highlights the types of practical and theoretical support teachers urgently need to teach animation effectively.

There are many good text books available explaining the techniques of animation, but little has been written which addresses the particular problems associated with teaching it in a classroom setting. Particular skills and approaches are needed to engage a class of 25 – 30 children in a co-ordinated activity. This report will offer a range of well tested, yet innovative models of practice. Our preliminary research has also shown that many teachers are unaware of the enormous potential animation holds for stimulating creative learning. Our case studies therefore aim to encourage teachers and pupils to try things for themselves. The practical demonstrations debunk the myth that digital animation is too specialised and too technically demanding for the classroom.

Animation work is a proven way to build self confidence in the learner's creative abilities. The hands on, personal engagement which the process demands, allows each individual to take immediate ownership of his/her work. Pupils truly care about the outcomes, and strive to reach ever more demanding goals. The multifaced nature of the process provides learners with many different points of engagement and an open ended path into discovery. This quote from a school teacher about an often excluded student says it all:

"Even Shaun stood in front of me jumping up and down with the excitement of doing animation next year!! He has never been excited about anything he does in school." (Teacher, High School)
Why teach animation in schools?

When I first started using animation in the classroom I was overwhelmed by its potential and at the same time alarmed to discover how little animation was acknowledged by schools or teachers. It is obvious that animation plays a central role in young people’s lives. David Buckingham believes that ‘It is quite extraordinary that the majority of young people should go through their school careers with so little opportunity to study and engage with the most significant contemporary forms of culture and communication.’ The report will address the issue that there is still a widening gap between children’s worlds outside school and their learning insight school. We must not stop raising this problem until changes in the curriculum are made to match the cultural need of young people until all schools have the ability to catch up with the pace of our digital revolution.

In summary the report presents methods for the integration of 2D and 3D animation in school education. My personal experience as classroom teacher will emphasis on the practical support teachers urgently need and this report will address this. Additionally having provided teachers with friendly animation resources, ideas and support ([www.schooltoons.com](http://www.schooltoons.com)) we created an afterlife to demonstrate that animation can be taught by the teachers.

It is fact that pupils relate to what they see on television, cinema and internet and pupils visual sense develops with their verbal sense. Recent studies show that seven out of 10 children have a television set in their bedrooms, while half have their own DVD player. Six out of 10 children own a games console, five out of 10 have a music system, while about a third of children have a computer and a similar number own an Ipod or MP3 digital music player. One in 10 has an internet broadband connection while 13% have access to Sky or digital television in their bedrooms.’ [http://www.literacytrust.org.uk/database/TV.html#lured](http://www.literacytrust.org.uk/database/TV.html#lured)

Referring to Buckingham we ought to make the curriculum relevant to pupil’s lives outside school for related learning to take place. He argues that pupils will become more sensible and build up a ‘critical’ understanding when taught about media they are confronted with on daily basis. He also points out that the social and cultural experiences of children have been dramatically transformed over the past fifty years, compares it to a classroom fifty years ago. (Literacy taught in school should become multiliteracy)

‘I don’t really like any lessons, I don’t mind music, but not with keyboards but I like to bring in my own instrument, my guitar. We play Frere Jacque all lesson long on the keyboard. What is the point of paying an instrument if you don’t pay it. I would like to play my guitar in lesson, what it the point in playing Frere Jacque if you are realy good musician… Always classical in music, always, sometime 400 year old…’ (Year 9 boy)
The report will open up evidence on the effectiveness of animation in education and how to maximise its value in enhancing the curriculum. The eight case studies examine and cover a wide range of educational contexts, from Key Stages 2 – 4, Inclusion Groups and Extra Curricular Activities. The findings will highlight the impact on pupils’ education, in particular on their learning, literacy and creativity through the creation of 2D and 3D animation.

There are many possible ways to highlight the positive impact animation can have on young people and the report will focus on key perspectives such as:

- Animation offers a different and new vocabulary of expression and enables greater creative freedom and communication skills
- Animation gives a great degree of control, decision and value over the construction and outcome of the work
- Animation can offer a different image of reality or create worlds that radically differ from ‘real’ world
- Animation can achieve anything that can be imagined and create an ‘art of the impossible’

The completed study takes the form of a DVD Teachers’ Animation Pack for Key stage 2, 3, and 4. In addition this will point towards the development of effective teaching practice which can improve pupils’ behaviour and performance using new media.

The report will highlight:

1. The impact animation has on students’ learning, literacy and creativity
   a. Pupils are extremely enthusiastic and a visible change towards a positive attitude to learning is strongly noticeable. It changes behavior!
   b. Within a short time pupils learn and adopt new terminology which they apply then effortlessly in speech and presentation skills
   c. Confidence and self esteem in pupils improves through teamwork, achievement and presenting successful products at the end
   d. Pupils clearly learn to appreciate a new working environment and the experience offered.
   e. Pupils identify with modern technology/modern themes and therefore can claim an important and personal ownership over their work
f. Pupils develop an understanding how demanding and challenging working within the creative industry can be. (Awareness to understand what they see on TV)
g. The IT skills learned through animation work will often enhance learning in a range of subject areas, such as Art, Music, Media and Drama. It therefore stands to fulfill a much broader educational remit by encouraging creative thinking in the classroom right across the curriculum

2. The working relationship between the teacher and the artist practitioner

a. Ways to consolidate the expertise of the practitioner and the classroom teacher (so animation can be taught without the presence of a professional artist.)
b. Teachers enjoy a positive and different working environment in which they also can be creative themselves
c. Teachers become more confident through continuous support and involvement

3. The need to provide teachers with teaching resources, equipment and professional development

a. The most practical software/hardware/published resource options for the classroom to teach animation effectively
b. Teacher training days

Why needed?

We have looked at a selection of research especially on the use of digital video with focus in teaching and learning. Research has been taken place in UK and other countries, in primary and secondary schools. As technology is only just expanding within secondary schools most research focused on Digital Video in the classroom. Good practice through Digital Video has been clearly identified, yet again animation has only little been considered. Therefore an independent study is essential to isolate and highlight animation. This review will build upon identified questions around analysis and practice with particular focus on existing debates around three key elements: creativity, learning and literacy.

Animation is self-evidently important, an art form that encompasses all other art forms, yet has its own distinct language. Animation clearly has itself lifted from its status as children’s entertainment or as a television schedule filler. (Wells) Wells would like to think of animation as fine art and he sees animation as an edition to Art and Design education. Buckingham makes his case for media education and sharing his attention in three dimensions that is a) the lack of progress in schools and curricula b) strategies made to support new digital media by pushing new technology in schools with ‘creativity’) lack of support for teachers and
recognition. I suggest also that focusing on animation alone as practice can explain in more depth a closer understanding over the changing nature of contemporary culture and of young people’s experiences.

Expanding on Buckingham I believe that as researchers we need to provide a ‘how-to-do-it’ book. Surely best teaching happens when teachers think through what they are doing and are committed to students learning. I argue that teachers must be given curriculum resources with close connection to their students’ own culture and perspective.

The study looked at what else teachers need in order to feel confident about using animation in the classroom, without additional expert help. During Inset sessions, teachers often become highly enthused, as their eyes are opened to the creative possibilities animation offers. As a result, they risk becoming over ambitious, only to come unstuck as the technical demands of these ambitions become clear. Suddenly, the processes involved in taking an idea from storyboard to production and final editing can feel very daunting.

Our purpose was to unpick this process, and look at it in ‘bite-sized chunks’. We discuss the practical constraints associated with different classroom assignments, and the time and resources required for each stage of the process. Most important of all, it will clarify precisely what the teacher needs to know in order to deliver each type of assignment, and the amount of Inset training this will entail.

**Research Methodology**

Over the two year term of the research, we analysed 8 case studies, including INSET training days for teachers and classroom projects for students. All of these have been documented on video and following schools were involved: Sprowston Middle School, Woodland View Middle School, Heathersett High School, Notre Dame High School, Sprowston High School, Reepham High School and Broadland High School

We monitored a range of different classroom animation projects at Key Stages 2 – 4. All projects cover approaches to drawn and model animation. Each animation project was introduced by a Cineliteracy day, hosted at Norwich School of Art and Design. We evaluated the impact of each classroom project on student learning by first monitoring their activities at each stage of the creative process using digital video. At carefully selected moments students were asked to explain (on camera) their thought processes, decision making, and overall response to the assignment.

The report explores how students are articulating the main elements of moving image language and literacy, from visual and text based communication to music and sound. It will also touch upon the moving
image culture within which their particular work resides, and the extent to which students understand and critically respond to this culture.

Our findings are complemented with interviews with the class teachers, held after the classroom activity. Teachers were asked to assess student learning outcomes, in the light of their knowledge of individual competencies and needs.

The evidence gathered in this way brought out key points and recommendations. Some of these have a direct impact on the delivery of subsequent classroom assignments. In this way our research additionally learned during the course of the study.

Each case study is analysed in two key ways. Firstly, the learning benefits will be demonstrated via real-life case studies. Secondly, the technologies involved will be demystified. All tools, software and materials used will be thoroughly tested, affordable and readily available to any school. The models will also demonstrate innovative ways of exploiting traditionally disparate resources such as IT suites, digital cameras and art room materials.

The three key areas of investigation opened up following questions to teachers, artists and pupils:

- **Pedagogy**: What forms of teaching and learning work best? What learning styles are at work when teaching animation in the classroom? The research recommends considering how software might be introduced, how it can be experimented with and what different roles learners can adopt in relation to editing as an aesthetic practice, a kind of literacy and a technology.

- **Literacy**: How do students experience moving mage culture, both outside school and within the curriculum. How do moving image texts create meanings at a detailed level? How does an understanding of editing tools and technology inform moving image literacy?

- **Creativity**: How can we define creativity in the context of generating moving image work? When students make choices, what aesthetics and languages are they articulating? What do students learn about themselves and their identities through creative decision making?
Aims:

a. The working relationship between the teacher and the artist practitioner.

Previous studies have shown a reluctance on the part of many teachers to develop animation work in the classroom after a residency undertaken by a visiting animator has finished. Often this is simply due to the fact that time is not allocated for appropriate Inset training to take place. As a result, it becomes impractical for the students to develop their skills further, due to a lack of adequate support.

A key aim of this study has explored ways to overcome this problem. We looked at the amount of INSET training that can be achieved over short periods of time and how to prioritise learning areas to fit the time available. We looked at the areas of expertise which teachers need the most support with, and the most practical ways to provide it.

We asked to discuss their disposition towards adopting various approaches to animation into the regular curriculum. They looked at cross curricular benefits, and how animation can be used to consolidate other learning. Finally, both teachers and practitioners discussed the mutual learning that has taken place, and the useful lessons learned by each party.

b. Making animation accessible to teachers and their students

Choosing the right animation resources: A range of software options has been tested out during the case studies, used on laptop and desktop PC computers. Each resource was analysed to assess learning curves, ease of use and fitness for the task in hand. Costs to schools were calculated, based on single and group educational licensing. The study lays out options at different price points, indicating the limitations of each option in terms of its functionality.

The study looks at the additional hardware needed to complement existing IT resources, such as DV camera, microphones, tripods, lighting and drawing tablets, and costs involved. For software and hardware, the research assessed the number of units needed to support student groups of various sizes. It assessed the potential problems for IT technicians and teachers in servicing each resource.

The final outcome of the overall study looks at a range of published resources available for teachers and students to help inspire and guide classroom animation projects. Where possible, these will be put to use, and used as templates in the design of lesson plans and inset sessions. Recommendations are made regarding those considered most useful, appropriate and easy to adapt.
Case Study 1: Cut out Animation

A Norwich Middle School, Norfolk

Key Stage 2

As part of the literacy research we invited Hannah Giffard, of Red Fox Productions to lead two cineliteracy days at two middle schools in Norfolk. She talked to 35 pupils, (aged 10) about the Red Fox books and the creation of the Pablo animation series. She demonstrated the entire production process, from storyboard to animatic to the final animation episodes. Hannah also talked about the different techniques of animation, and moving image language employed.

On both days Hannah worked with the pupils and classroom teachers on storyboards for a new animation project, which followed in June 2006. The theme at this school was ‘Stories from Different Cultures’, using 2D cut out animation.

Evaluation and Observation:

It was a very successful and creative day. Pupils were engaged and listened carefully. The documentation clearly indicates how pupils can adopt new language within a few hours. The footage also demonstrates pupils’ confidence in using new words, such as frame, close up, medium shot, zoom, storyboarding, etc. Most importantly, pupils were able to critically analyse their own work, constructively applying media language.

Key findings

- The class engaged immediately with animation as everybody knows Pablo.
- Teachers grew more and more confident and supportive as they learned alongside pupils.
- The communication between teacher, Hannah and the pupils was highly effective.
Suggestions

- Provide practical activities after each 30 minute block of theoretical teaching (see evaluation by classroom teacher below.)
- Each lesson should conclude with a group discussion to underpin what has been learned.

Storyboarding ‘Little Red Riding Hood’
Together with their teacher, pupils developed their ideas and storyboards based on tales from different cultures.

Feedback and evaluation from pupils

On the 28th April 2006 at Sprowston Middle School, 4B spent the day with the writer of Pablo the Little Red Fox. It was our first time with Hannah. We started off the morning watching some 2D animation. I learnt a lot about how to do 2D animation and the differences between 2D and 3D. Next Hannah came to talk to us about Pablo the Little Red Fox and she showed us some programmes from the television series. Hannah talked to us about what inspired her and why Pablo is a fox. After break we ate popcorn and watched lots of different animations. After lunch we all wrote a storyboard for Little Red Riding Hood. It was a really good day and I learnt so much and enjoyed all we saw and heard.

Talitha

1. I know how to do a storyboard
2. A wide, medium and close drawing
3. And to do 3D and 2D animation
4. 24 clicks is a second in animation
5. You can do rough drawings when you are doing animation

Marcus
1. I've learnt that you can draw different expression on eyes.
2. I've learnt that you always put the darkest colour first on backgrounds.
3. I have also learnt that you can do animation with cut outs.
4. I have learnt that you follow a story board so you have to make it colourful.
5. I've learnt that animation can be about anything.

Lydia

1. I learnt that a story and a TV show needs a storyboard.
2. I learnt that Pablo the Little Red Fox was 2D.
3. I learnt that you can use shadow puppets for animation.
4. I learnt the stories ‘Red Fox’ and ‘Red Fox on the Move’.
5. I learnt that you can do animation on a computer.

Chelsea

I loved the animation. We had to use a special camera and lights. I moved the characters and I worked the computer. I learnt that 2d and 3d are different, because 2d is flat and 3d sticks out. Thank you for what you taught us.

From Connor A

Last week on Tuesday everybody in 4B had a project on different cultures. I loved it when I was moving the characters and I hated it when our shadows got in the picture because then we had to go and do it again that took ages, but everyone in our group worked as a team because when you have finish moving the character say done and then they will click it twice on the computer and they say done. I wish we could do that again.

From Jazmin

Quotes from teachers’ evaluations

I would like to do animation with every year group (3 classes make up the whole school!). I am really enthused, and the beauty of animation is that it will fit into any subject. E.g. I can do space for science, bible stories for RE, bullying for PSHE, football match for PE, shapes for Numeracy, a volcano for Geography. In fact, I could do nothing but animate my lesson!

I think animation lends itself really well to literacy. Storyboards are often used in literacy and stories, play scripts or poems can be animated. In fact you could animate non-fiction and fiction. Developing writing and speaking and listening could be used in animation.

The children get so engrossed in what they are doing that they get to know their subject well. The children develop their sequencing skills which is a great tool to use across the curriculum. Working in teams is a valuable skill. Patience! The amount of people that have to be involved gives the children a real life perspective into the animation process. Animation is a very creative process. It is an inclusive activity, not exclusive. Therefore it, engages those children who find writing difficult, or those who don't like literacy because they see no value in it. It is a kinaesthetic activity at times, and many children learn by doing and not by listening, looking and sitting at a desk.

We need at least 6 camcorders if we want to do whole class work and that is working in about groups of 5. I don't think the Nelson project would have been as successful if I hadn't enlisted the help of a parent per group, mainly because of the age of the children. Year 4 often need a lot of guidance. The actually filming can take a long time and this needs to be taken into account.
What could have been done differently?

For the CineLiteracy day:

- I would have had a 30 minute listening/teaching activity followed by the children doing something. Or if there is a need to speak for an hour, engage them more in what you are doing.

- Involve them more in the listening by constantly asking them questions. E.g. Why do you think I did this? What do you think this is? How could I have done it differently? What would you have done?

- Sometimes to engage the whole class I say ‘You have 30 seconds in pairs to discuss……. Or come up with three ideas/answer to ……” This way all children are involved. When visitors come in to school they tend to ask the children with their hands up and this can be very boring for the rest of the class.

- The children have wipe boards and pens in their desks. Teachers use them to engage everyone. Write and show. E.g Write me three words to describe this scene.

- Give the children a focus when watching anything visual and make them take notes. You could ask groups to focus on different things. E.g For Britta’s first animation, one group could take notes on all the sounds heard, another on all the animals.

- They also have notebooks for jottings and sketchbooks. Hannah could have said draw me your own fox and given them 1 minute. It may not be of any use to the animation process, but the children are more engaged and joining in.

- You could have brought in some jointed men, bendy men or plasticine models and got the children to create a short dialogue and animation on their desks in groups and fed back to the rest of the class. This could be a quick 30 minute activity as long as it focussed.

Findings

Evidence from this collaboration has shown that the integration of animation into teaching and learning has the potential to enhance learning across the curriculum. It particularly it can:

- Increase pupils engagement and interest with the curriculum
- Integrate and develop new effective learning styles
- Motivate and engage a wider range of pupils than traditional teaching methods, so providing greater access to the curriculum
- Encourage teachers and schools to update or extend the curriculum
- Create a positive working environment
- Improve student self-esteem and behaviour
- Stimulate and support the development of other skills, such as, problem solving, teamwork, negotiation, thinking, planning, reasoning, management, appraisal skills and risk-taking

Particularly noticeable was the rapid adoption of technology based tools. All pupils picked up instruction fairly easy and within a short time. This age group already showed knowledge of computer usage, such as cut and paste, delete, ctrl, Alt, esc and general file management. The capture software used, Cinecap [http://www.alternaware.com](http://www.alternaware.com) is especially user friendly and as the pupils can immediately replay their scenes, this boosted their confidence.
However the pupils found it more difficult working in teams and reaching group decisions. The main reason is that each pupil had many more ideas than could be explored, and much time was wasted arguing over which ideas should be selected, and who should adopt which role. This problem was seen to increase with group size, especially with teams of 5 or more. However, by the end of the day, many pupils had come to understand the importance of negotiation, delegation of tasks, and evaluation of results as a team.

Good storyboard preparation helped the pupils to stay on task and focus clearly on each scene in turn. Even so, there was a constant temptation to hurry through the shooting process, add new scenes and digress from the adopted plan!

Some pupils found it difficult to keep to a steady, patient pace while moving their characters, and would hurry through a scene, only to find they had to reshoot it. Communication grew stronger during the day as pupils learnt they must talk to each other if they wished to improve their work! Pupils had no difficulties listening and responding to constructive criticism. Pupils did not resent being asked to repeat a scene, as they were all eager to get a good result.

In Middle schools parents are often present to support busy activity days. Here we see one grandparent watching and helping out. This was a fine example of intergenerational learning. The additional support was found to be invaluable.
Case Study 2: ‘Found Objects’ Animation

A Norwich Middle School, Norfolk

Key Stage 2

The Cineliteracy Day

This was the second cineliteracy day led by Hannah Giffard of Red Fox Productions. During the first section of the morning Hannah showed the pupils the stages of writing a Pablo story in book form. She also showed the changes made to rough sketches, so that pupils could see the editorial processes involved. She presented some of the original artwork and sketches from her portfolio which were used to make the Red Fox books. She then explained the different processes involved in producing an animated story for television.

After break, pupils were introduced to other styles of animation, such as 3D and pixillation. They watched a variety of different films to learn about the techniques, and different ways to tell a story. Hannah discussed storyboard techniques and story structure. Pupils were encouraged to use long shots, middle shots and close ups in their own storyboarding, and shown ways to create humour or surprise. They also discussed the use of props in their animation such as a milk bottle or a carrot and how movement can be achieved.

The pupils were given time to try flick books and zoetropes and were given a short demonstration on how to animate objects, using Cinecap capturing software, a laptop, camera and whiteboard.
The Animation Assignment

The class worked in teams to devise short stories to encourage a healthy eating lifestyle. The class were given two days to shoot their sequences, edit and add sound. Day 1 was a very active and busy production day where six groups of four worked in teams. Six animation rostrums were set up across two classrooms.

Pupils used real objects and changed them into characters. Thinking creatively, pupils attached faces to their coconut characters.

Findings

Animation was introduced to the school in the previous year, and some of the same students made model animations on the theme of Nelson’s life. Overall both projects had a strong impact on the school, and it now offers an animation club to all pupils.

The experience of making an earlier animation had clearly enhanced pupils’ presentation and communication skills. They talked about their ideas to camera with ease, and adopted film language when explaining their storyboards. Shot types became part of their vocabulary. Additionally pupils understood when to apply particular techniques to achieve something special, e.g. use a close up of the apple, moving through 180 degrees to celebrate his win over the chocolate bar.
Quotes from the class teacher’s evaluation:

*How can you include animation in your curriculum?*

Animation is probably best incorporated as a support to current practice. This could take place in lesson time or as an additional ‘club’. We have found that blocking animation helps with acquiring skills and maintaining impetus on the project. Ideally the whole class would be involved (as in the recent projects with Britta). However cost/time implications limit this. Ways round this include rolling lunch time clubs or teaching assistant sessions for those involved – input would still be given as a whole class, but for the filming/editing smaller groups would be essential.

I currently use cameras (still and video) and Digital Blue in lessons for input and plenary purposes. Animation could be used to enhance art projects such as ‘Talking Tapestries’ studied in Year 5 – children create a Bayeux Tapestry style storyboard of a St Lucian myth. I can see opportunities across all curriculum areas.

Animation could either replace or enhance current practice as appropriate.

*What areas of animation do you think are useful for literacy?*

Animation can be used for a variety of uses. From storyboarding to bringing to life children’s stories from Creative Writing sessions, from plenary style clips for grammar to assessment.

*What areas of animation do you think are useful for learning?*

Obviously the acquirement of new IT skills is great, but for me the interaction in groups was really powerful. Children were given the opportunity to see the animation process through to the end and whilst gaining new skills were ‘forced’ to work co-operatively with members of the class they might not have worked with. The way the inclusion of animation motivated children to learn was the most important for me. Children who had previously sat back, came to the fore and relished the new challenge.
Case Study 3: Animated Music Videos

Techniques: Cut Out, Draw Animation, Pixillation
A Secondary School, Norwich, Norfolk, Key Stage 4

Cineliteracy Day: Students were introduced to the history of music videos and watched examples, such as Madness, Aha, Peter Gabriel, Tom Tom Club, Gorillaz and Nizlopi. Clips were interspersed with critical discussion. Why are Gorillaz famous whilst others less successful? What techniques of animation were used? Which cost more to make? Which would they be more prepared to spend money on?

The students also tried some simple exercises, such as making instant music videos in the style of Bob Dylan’s Subterranean Homesick Blues. In the afternoon they worked in small teams, developing an idea for a band, its style of music, and how they would market it. The day provided a theoretical base upon which to develop the assignment which followed.
Schooltoons week (Match funded by ESCalate)

Assignment
Students were given the task to create a virtual band and then make a 1 minute promotional music video to sell their band to record companies, managers and TV stations.

During the week students were given demonstrations on how to animate using software packages, such as CineCap and Pinnacle. Examples of animation were shown alongside technical demonstration such as:

- Cut-out animations (Lotte Reiniger)
- Drawn animation (Tom Tom Club)
- Pixillation, using the body, face, hands, feet, or/and objects (Peter Gabriel)
- Blue screening using Pinnacle Studio

The demonstrations also covered the basics of film language.

‘With any teaching project which is heavily technology-based it is important that the equipment is fully functional and the recording session on the Monday went off with only a couple of minor (and quickly resolved) software glitches. Steering the students away from endlessly auditioning sounds in ACID was not as difficult as I had anticipated and nearly all the groups had a strong sense of what they wanted by this stage. Most groups had an initial reluctance to record real sounds of their own, especially voice, but overcame this with varying degrees of encouragement.’ Jonathan Lambert
Pupils composing their songs, working with professional musician Jonathan Lambert

Pupil using Acid Pro to record soundtrack

Pupil working in drawn animation

Pupil working in cut-out animation

Evidence from this collaboration has shown that the integration of animation into teaching has the potential to enhance learning in music lessons. It particular it can:

- Increase pupils engagement and interest with the curriculum
- Integrate and develop new effective learning styles
- Motivate and engage a wider range of pupils than traditional teaching methods, so providing greater access to the curriculum
- Stimulate teachers and schools to update the curriculum
- Create a positive working environment
- Improve student self-esteem and behaviour
- Stimulate and support the development of other skills, such as problem solving, teamwork, negotiation, thinking, planning, reasoning, management, appraisal skills and risk-taking

Integrating animation into art and design education ensures that pupils gain experience in a range of media, including two and three dimensional work in set building, and time based work through music composition and animation. The week provided a good example of a programme of study in practice. It showed exceptional performance in relation to particular aspects of the KS 4 level descriptions. For example, one team developed an outstanding animation around their own song, designed to help young people learn their alphabet. The genre selected was entirely appropriate to their selected audience. They exploited the possibilities of animation in a manner befitting their selected theme. They gained in confidence remarkably over the week. On the first afternoon they were completely tongue tied when trying to explain their ideas. At the end of the week they were able to talk for 15 minutes about the subtleties of their concept!

Hethersett High School will integrate animation in their GCSE Art and Design curriculum from September 2006.
Exceptional performance

Pupils explore ideas, critically evaluate relevant visual and other information and make connections between representations in different genres, styles and traditions. They initiate research, and document and interpret information in visual and other ways appropriate to their purpose and audience. They exploit the characteristics of materials and processes to develop ideas and meanings and realise their intentions. They extend their ideas and sustain their investigations by responding to new possibilities and meanings. They identify why ideas and meanings in others’ work are subject to different interpretations, using their understanding to extend their thinking and practical work. They communicate their own ideas, insights and views.

Pupils working in sketchbooks to collect and develop ideas. This will be credited as part as their GCSE coursework. The project allowed pupils to work from first hand observation, experience and imagination, and to explore ideas.

Preparation work. Pupil projecting an image of a car onto cardboard. They were encouraged to use a range of materials and processes, including painting, collage, print making, digital media, textiles and sculpture.

Pupils prepare a green screen for pixillation work.

The animation rostrum is set up on a table surface, easily accessible by pupils and a safe working environment.

Rostrum work is very efficient, one or two pupils animate, a third oversees the capture software, and assesses the quality and smoothness of animation movements.

Pupils import clips into Pinnacle Studio to fit with their soundtrack. They discuss and evaluate work in progress, making sure the animation fits the music in pace, timing and mood.
A pupil edits her animated sequence to the music soundtrack, using Pinnacle Studio.

Jonathan supports during more difficult tasks.

Pupils present and evaluate their work in front of the class and camera. They review what they and others have done and say what they think and feel about it.

Pupils identify what they might change in their current work or develop in their future work.

Students made the following comments:

- ‘I really enjoyed having something to work on for a whole week’
- ‘I will never watch cartoons on TV the same way again’
- ‘I looked at work from different artists which made me think about how many possibilities there are within animation. I also started to think about how long it must have taken them to do it’
- ‘I learnt to be organised, work effectively and to work in a team’
- ‘I found that using the camera and DODCAP was a lot easier than I thought’
- ‘It was a lot of hard work but when we got the final result it was definitely worth all the effort’

Evaluation written by Head of Art and Design, Hethersett High School, Norwich

“In a world where children are exposed to animation on a daily basis through television, the internet, mobile phones, and cartoons, research by experts in partner institutions suggests that computer animation is a suitable learning instrument for children across all subject areas in the classroom. In addition, the technique has been shown to be a suitable learning method to integrate pupils who are not traditional learners or those who experience learning difficulties in traditional classroom situations” Frances Meredith, Bristol School of Animation
Pedagogy:

The animation project encouraged different kinds of learners to participate. All groups had at least one type of learner (1) in their group enabling the groups to work well together and to develop a range of skills.

- Collaborative team work
- Problem solving skills
- Research skills
- Public speaking
- Cross curricular skills
- Communication
- Computer skills
- Organisational skills
- Media skills
- Time management

By working in this way students could see other ways of learning that would not be their own initial method, thereby extending each individual student.

The groups whose product achieved all the aims (2) did so because they embraced all the opportunities available to them. Those whose work lacked ideas and/or skills did so because either they lacked a specific type of learner in their group and so missed out on a valuable contribution, or because they had a fixed idea and missed the creative opportunities.

In terms of software, the students are becoming increasingly literate through experience both in school and at home. They quickly grasped the Acid Pro software and the image capture software. A few students commented that they would have liked more time on the final editing stages.

In line with national averages, of the 17 students involved 4 have some kind of learning difficulty. The animation project enabled these students to achieve in a way that I had not witnessed before. They became confident and articulate, in part due to working within a safe environment for a concentrated amount of time, but also due to the high expectations placed upon them and their loyalty to ‘the group’. In addition the methods of learning were so diverse that they could access the project at a level they felt comfortable with.

Literacy:

Everything today is represented in the media and the moving image is becoming increasingly evident. Often this is seen as a negative influence on students’ learning. Projects such as the Schooltoons week enable students to improve their critical media literacy, to use the processes available to explore a range of learning outcomes.

Learning is about connections, about understanding the way people and knowledge are interconnected and interdependent, it's not about just storing information. Blooms taxonomy (3) puts forward the thesis that education focuses too much on basic knowledge; recall of facts, whereas the higher levels of attainment relate to evaluative processes. All of the students reached the synthesis stage with a few achieving evaluation. The visual arts in particular, whether still or moving images, allow for students to access this stage of their learning in a way that other areas of the curriculum are less accessible.

Media literacy is an excellent way of raising achievement and helping students understand the relationships between different areas of the curriculum. By incorporating music, narrative, art, technology etc, the use of animation crosses curriculum boundaries and can be seen as both supportive and discrete.
Creativity:

Creative decision-making is called “creative” because it generates new plans. It considers a potentially endless list of possible outcomes. In this way, the decision-making process leads the decision-maker to discover possibilities that weren’t listed at the beginning of the process. In a nutshell: if, at the start of the project, you can see your way right through to the end, then it’s almost certainly too easy.

Working on their animations the students were at times in a seemingly constant state of creative decision making. Some students stuck rigidly to their initial plan, others seemed to have no plan at all. The differing personalities within the groups affected the level of creativity. Those who had a strong ‘leader’ with fixed ideas achieved a competent outcome, as did those who had no apparent ‘leader’ or fixed ideas. The better work came from those who managed to combine open and creative decisions within a loose framework.

The moving image empowers students to explore a wider range of outcomes than would be available with a still image, to take more risks. Because work can be easily edited and re-arranged, mistakes can be removed or used as ‘happy accidents’.

Creative decision making allowed the students to learn about themselves and others, to explore a range of outcomes and become risk-takers

Appendix

1. Three types of learners

**VISUAL LEARNERS**
- Visual learners learn primarily through the written word.
- They tend to be readers who diligently take down every word.

**AUDITORY LEARNERS**
- Auditory learners learn primarily through listening.
- They focus their ears and attention on your words, listening carefully to everything you say.
- They like to talk rather than write and relish the opportunity to discuss what they’ve heard.

**KINESTHETIC LEARNERS**
- Kinesthetic learners learn better by doing.
- This group learns best when they can practice what they’re learning.
- They want to have their hands on the keyboard, the hammer, or the test tube because they think in terms of physical action

2. Aims

Content is relevant to theme of assignment
Clear and evident introduction of theme and content.
Student used creativity in the planning for inclusion of sound
Topic was relevant and imaginative
Images relate well to the content
Students work was original in nature
Student work showed significant evidence of inventiveness
Students used time wisely
Production showed planning
Subject knowledge evident throughout project
Project completed within time set.
Students have demonstrated transferable skills for future work.
Overall synthesis of the project
3. Blooms Taxonomy

In 1956 Bloom identified six levels within the cognitive domain, from the simple recall or recognition of facts, as the lowest level, through increasingly more complex and abstract mental levels, to the highest order which is classified as evaluation.

1. **Knowledge**: arrange, define, duplicate, label, list, memorize, name, order, recognize, relate, recall, repeat, reproduce, state.

2. **Comprehension**: classify, describe, discuss, explain, express, identify, indicate, locate, recognize, report, restate, review, select, translate.

3. **Application**: apply, choose, demonstrate, dramatize, employ, illustrate, interpret, operate, practice, schedule, sketch, solve, use, write.

4. **Analysis**: analyze, appraise, calculate, categorize, compare, contrast, criticize, differentiate, discriminate, distinguish, examine, experiment, question, test.

5. **Synthesis**: arrange, assemble, collect, compose, construct, create, design, develop, formulate, manage, organize, plan, prepare, propose, set up, write.

6. **Evaluation**: appraise, argue, assess, attach, choose, compare, defend, estimate, judge, predict, rate, core, select, support, value, evaluate.
Case Study 4: Arms Control TV Advert

Techniques: Cut Out, Drawn Animation
A Secondary School, Norwich, Norfolk, Key Stage 4

Cineliteracy day: The first day was used to provide the students with an overview of the history of animation, and an introduction to storyboarding and character development. They also learned the rudiments of music composition via a series of simple exercises.

Pupils learn to deconstruct a piece of music into its constituent elements e.g. rhythm, tempo, tonality, timbre etc and explore the effect of different uses of these elements. Games are played to explore rhythm and tempo and to prepare them for the vocal exercises. Games were played in which the students created harmonies for themselves and explored the effect this had on simple melodies. They each sang pitches assigned to them.

Students were introduced to the history of animation by a short simple activity: building a 'bird-cage' thaumatrope

Students make their own thaumatrope
A zoetrope used to demonstrate how we trick the brain into believing that there is a fluid movement and progression between drawings. This is used to introduce pupils to the most primitive form of animation.

Task:

Devise a thirty second TV advert on a theme of Human Rights. You will work in a group of three producing an advertisement selling ‘Human Rights’.

1. Control Arms (against the arms trade joint campaign with Oxfam and IANSA, a million faces petition)
2. Stop Violence against women
3. End the trade in conflict diamonds
4. Stop torture in the war on terror
5. Refugees and asylum seekers
6. Defend the defenders, support for human rights campaigners in danger

You may use one or more of the following techniques; drawn animation over photographed backgrounds and/or cut-outs (newspaper, magazine, photography) plus the addition of your composed music.

- Storyboard your script, selecting a range of four to five different shots including close up, medium shots and wide/establishing shots. Draw a key frame for each shot in each cell of the storyboard. In the box beneath each cell, state shot length and describe action and accompanying sound. Bear in mind animation will be shot in two frame increments to play back at 12 fps. Speech takes 3 words per sec.
Using a personal piece of work, Karina demonstrates storyboard skills.

All students are encouraged to draw as part of their preparation work.

Rostrum work. Students enjoyed making their backgrounds from simple newspaper cut-outs.

Constructive criticism is well received and students communicated well with the artists in residence.

Students use the green screen technique to combine two images.

Once students overcame fear of editing, they really enjoyed the creative process of putting all their work together using Premiere Pro.

Group discussions are very productive and generate many ideas for refining work. I noticed how positively students react to others’ work.
The project demonstrated how effectively animation can support students in fulfilling their ICT requirements for Art and Design. We noted how the processes described above clearly cover these three points.

Art and Design:

**ICT STATUTORY REQUIREMENTS**

- ‘Pupils should be given opportunities to apply and develop their ICT capability through the use of ICT tools to support their learning.’
- ‘ICT helps pupils learn in art and design by enabling them to develop their creativity and imagination through more sustained activities within the programmes of study.’
- ‘ICT makes it possible to include all pupils in visual research and gives them greater autonomy over the creative process. It provides more tools to help pupils learn about visual concepts and visual communication.’

**Quotations from evaluation written by participating Head of Art and Design**

Context of the Project

The group selected were my GCSE photography class as a suitably small and enthusiastic group, used to working independently, and I invited two 6th formers to join them who were very keen to learn the techniques. The brief was to create a 30 second TV advertisement, on the theme of human rights with a focus on the Control Arms campaign run by Oxfam, IANSA and Amnesty International.

Some of the pitfalls and also major gains of the week were those associated with group work. There were 3 existing strong pairs of pupils who frequently work together and had prepared ideas together. The other students were the less motivated ones and they found it harder to progress in teams. All the groups overcame these issues by the end of the week and one of the major gains was the growth in personal confidence and motivation shown by 2 of the weaker students.

The last week of the school year was probably the only time I could have been allowed to take myself and the students off timetable for a whole week. There were some problems with this timing however. This led to considerable difficulties in preparing them for the project and communication generally.

In spite of working through a heat wave in the last week of the school year, the students all said they enjoyed working intensively at one thing and they all soon appreciated the need to meet a deadline and how difficult that can be unless all work positively together and stay on task.

The method of teaching during the week was geared towards the individual approach and time allowance suitable for GCSE and A' level. We did the equivalent of a term's work during one week. A simpler approach would be needed for key stage 3 unless it was an enrichment activity for a small group and even then it would be hard to replicate a whole week's work.

The examples of animation shown and the variety of techniques we employed ourselves, all combined to stimulate our imaginations to see how animation could be used both as a teaching aid in the preparation of lesson material if desired and by pupils themselves in any subject. A moving image is very compelling and we were shown how animations could be produced using drawings, photos, cut-outs and real objects, though we stuck to 2D.
We all thought that the process of image capture would be harder. We also however learned there is a world of difference between just doing something and doing it really well to produce a professional result. We also gained understanding of just how time consuming a professional piece is and why.

I can see that it is a very expressive medium and that the language of movement itself is powerful and individual akin to dance perhaps, but sharing the language of framing and composition with photography and painting. Our awareness of the relationship between sound and image was raised by Jonathan’s contribution which demonstrated how the mood created by a piece of text could be vastly altered by the addition of different sounds and rhythms.

Certainly this was a superb enrichment activity. It was fun but hard work and the students had to think and work creatively in a short time to produce a result. The weaker students in particular produced much more creative and imaginative work than they normally do.

As a teacher, I was really excited by the possibilities and hope to make this part of my long term plan to extend the photography course into film and video as allowed by the Edexcel GCSE Art and design, endorsed Photography syllabus.

One of the hard things to make students understand is that photography at GCSE must go beyond mere recording and therefore I think that the stimulus given to their creativity from this project will feedback into their photography. It will be possible for them to enter their projects for their GCSE coursework. They have kept work journals and have been given instructions for further research. If possible I would like them to make their own animation now with a free choice of subject matter, but using the techniques they have learned. Their next project is photomontage and I will look into ways in which small parts of that project could involve animation eg. metamorphosis.

One of the main reasons I have always enjoyed working with real artists is that they model commitment and motivation and inspire us with something imaginative, creative and unique. Students learn that the skills and ideas so freely shared with them have taken years of slog, and hard work, disappointment and persistence to get to. This knowledge is something they need to grow up in their own art and life generally as there is a popular notion that art is easy if you have talent. The need to present their ongoing work to others on camera was useful in developing confident language skills.

The project created opportunities for pupils to explore the value of animation as part of the creative industry. Pupils were questioned about the current contexts and uses of animation in the media and we were led to recognise just how widespread it is, and how varied in style. The different kinds of animation were briefly discussed and throughout the week lovely examples of different kinds of work were screened. This method of interspersing practical work with screening and discussion worked really well and introduced students to the lesser known styles and to other students’ films as well as professional work. Early examples of animation and children’s toys were explored and students made their own spinning toy.

- Students gained awareness of the language of animation and learned specialist terms to do with storyboarding filming and editing
- They learned a huge amount from seeing Karina’s drawings, storyboards, character studies and mood boards.
- They learned a little about the difficulties of getting work in a highly competitive field
- Student’s awareness of copyright issues was raised when they were refused permission to reuse an existing song as a soundtrack
Learning took place through doing with help given as required, by demonstration and by example from Karina’s own work.

- Students learned the importance of storyboarding and the idea that you might have to draw for someone else to carry out your idea
- Students were introduced to image capturing software and shown how to set up an animation rostrum
- They used either Pinnacle or Adobe Premiere to edit the film and add the sound created using Acid

The students seemed to cope well with this aspect of the work which seemed daunting to me; however I wonder whether they gained enough experience to be able to do it again by themselves. We hope to be able to reinforce the learning by carrying on next year. For myself I would have been more useful had I had my training before the Schooltoons week, as I couldn’t help the students with any difficulties that arose or prepare them sufficiently well beforehand. This could not be helped but in an ideal world the teacher training should come first, at least for a taster session.

**Recommendations for teacher training in animation**

Points to note:

- Ideally teachers should have an introduction to the process before preparing students.
- Teachers will come to the project with different levels of knowledge and fluency with both the art skills and the ICT skills required.
- Like children, teachers have individual learning styles.
- Personally I am reflective and like to have time to absorb and prepare.
- Other people like to get stuck in and do things as quickly as possible and have no problem with short deadlines and therefore may disagree with these recommendations.
- Everybody likes to be shown things so “here's one I made earlier” is always good.

- We go away and prepare our idea around the theme we are developing in our schools.
- We come to the next session with our storyboards and any cut-outs, backgrounds etc ready made.

**Quotations from evaluation by Animator in Residence**

Taken as a whole I believe that the schooltoons week was an educational success for all parties involved. Clear objectives were set and implemented throughout the week. Pupils, the teacher and I acquired new skills, knowledge and an insight into what can be achieved through schemes such as this.

Personally, I feel that the structure and timescale of the workshop was successful - all the children managed to produce a 30 second animation with a soundtrack. However, I would recommend for future projects that the first day of contact is a theoretical introduction to both aspects of animation - sound and image. A day on sound should then possibly follow, in turn leading onto imagery and the actual making. The reason for this suggestion was that initially the pupils seemed rather bemused and vague as to what was required of them by the end of the week. They felt obliged to produce a rushed soundtrack before they really knew the boundaries of animation and what they could possibly achieve with the imagery. I feel that this may have restricted their creativity and design of the soundtrack - possibly damaging their result due to their sound and image jarring. A further example of how this could be avoided would be through the school teacher introducing and clarifying the brief and its theme before the workshop takes place.
Providing this service within the school grounds and environment certainly demonstrated animation’s use within the curriculum, which may be unsuccessful if taken out of the school context. Working in their classroom allowed the children to be relaxed enough to produce ideas confidently, whilst our presence inspired their creativity. This was achieved through showing them examples of other successful animations. With the correct guidance and recommendation, teachers can easily build up a resource pack of DVD’s, videos and handouts with such examples.

Utilising a camera to record the whole workshop and individual interviews with students was one of the methods implemented in order for a profound and accurate evaluation to be made. Furthermore, it was useful to ask the students to write their own written evaluation, which we read and discussed with them. The pupils and teacher picked up a considerable amount of technological knowledge about using the digital video equipment. We provided them with inductions to the equipment and to the software used - reinforced with a written handout. Throughout the workshop students were encouraged to take notes and ask questions to their teacher and to the workshop tutors.

I worked closely with the teacher leading the class and explained all the processes and theoretical background of the project to her. By the end of the week we were having detailed conversations about ideas that she had had regarding exercises and tasks she could initiate in the new term. I do feel that teachers involved needs some individual training other than what can be picked up during a workshop. This would include a session on each of the software programs and setting up and using the rostrum. However, they could refer to a handbook whilst teaching (recommended again). Animation can readily be made accessible to teachers and pupils alike - simply through purchasing a few essential pieces of equipment and approaching it with an open and creative mind. Once again I must state that for the teachers to feel confident with the subject matter, they should really be introduced to the software and have access to practice and play with it themselves. There does not seem to be a problem with the ideas process or the actual drawing and making of the pieces. Perhaps the most pressure is upon the final editing stages. However, the software we used was very simple and I believe that the teachers would pick it up quickly.

Time constraints during the workshop pushed the children to work as hard as they could, and to be organised. Hence, real-life time management was put into practice successfully so that the children felt that they had worked hard and could look back over the week and marvel at just how much they could achieve when they applied themselves. For the older students this eased them into the industry standards that they will be entering.

In summary, what teachers need to learn to survive:

**Software:** capturing programme, sound software and editing program
Care and setting up of **technical equipment:** rostrum and computers
History and **theory** of animation and simple introductory exercises e.g. zeotrope
An awareness of current and monumental examples of animation, as well as a library of examples
Case Study 5: Learning

Secondary School, Norwich, Norfolk, Key Stage 3 (Year 9) Breakthrough Boys (under achievers)

Techniques: 2D animation

For this study we worked with twenty Year 9 boys on a ‘Breakthrough Programme’ and their teacher. The mixed secondary school is located in a middle class housing estate, five miles outside Norwich. The group attended one animation Cineliteracy day at Norwich School of Art and Design, followed by two days workshops supported by three professional practitioners and the class teacher. (The latter two days are not described in this case study). Observation by video recording and interviews was made during all activities to analyse the boys’ motivation, learning practice, and achievements. The evaluation below combines practitioners’ and pupils’ observations of how successful each activity was.

Animation Cineliteracy Day

For this cineliteracy day we wanted the pupils to explore different animation techniques in visual communication, this is to ‘teach a grammar of language alongside a grammar of images’ so pupils can find the language to talk about animation. (Burns, Digi-teens, 1999)

Pupils watched different types of animated products, were given an introduction to the animation industry and explored and developed a basic level of understanding in their sketchbook. It was important to for pupils to develop knowledge and literacy of animation, process and principles. We hoped they would use this information to develop their ideas, taking account of purpose and audience when developing their own animation briefs.

The boys were shy and inarticulate at the start of the day, giving short, reluctant answers to questions about their favorite animations. Most commented or repeated what the previous classmate said, e.g. ‘haven’t got one..’, Futurama (‘..it’s funny..’), ‘Simpsons’ , ‘South Park’, ‘Robot Chicken’ (‘..because it is funny and violent..’), ‘Wallace and Gromit’ (‘..it is original..’).

The room layout with three sets of tables immediate created three diverse groups of boys. Table one, to the left of the room, established a noisy, provocative and rebellious attitude. Table two, in the centre, demonstrated a more interested, engaged, and alert attitude. Table three hosted the slow, unsure, shy and less capable group.
The practitioner used a very energetic teaching style to respond to boys’ general active/fast learning styles. Students were also set a professional brief to create an ‘information’ to promote positive school life. We wanted to engage the pupils with a real world brief, introducing the professional creative industry. They would experience working under pressure, in collaboration with others, within a realistic art school environment. Pupils were given a personal sketchbook to collect their work during the project.

Selected animated clips were used during the day from Futurama, The Corpse Bride, Catch Me if You Can, The Adventures of Prince Achmed, Tom Tom Club, The Incredibles, etc. Discussion of clips was intercut with fast, practical exercises, to help keep the pupils’ focus.

**Activity: Persistence of vision.**

This activity aimed to explain why animation works. Why do we see these static images as moving? The group was asked to wave their hand in front of your eyes very fast, so they are able to see several hands. Each pupil was shown a thaumatrope, zoetrope and flipbook to help them understand the principal of persistence of vision.

The group was asked to make their own thaumatrope, a task undertaken with interest and enthusiasm. The drawing skills were of low standard, but pupils were eager to get it right. The exercise did not require a high level of draughtsmanship, so confidence grew rapidly. All enjoyed the activity and showing the illusion to the camera and each other. Sketchbooks were used to develop ideas.

**Understanding the language of animation**

A variety of short animations were used to lead pupils into a discussion of production, language, representation and audience. (These are the four key concepts identified by David Buckingham in ‘Media Education’.)
Here the practitioner followed Buckingham’s example and used The Simpsons as a case study. In considering production, we discussed the method of producing this style of drawn animation. In analysing the language, we invited the pupils to tell us what we can learn about the main characters from observing the title sequence. “Who else can you see apart from the family, and why?” “How about Homer, what kind of person is he”, etc. Pupils were given time to sketch out a character sheet, including a biography, likes, dislikes, friends, hobbies, etc. This activity worked better orally than in writing as all pupils were keen to engage in an open discussion about The Simpsons. The process also allowed the pupils to think about representation, by considering images of family and stereotyping. Finally, they talked about the target audiences for the Simpsons, and why they thought it worked so well for children and adults.

For the next exercise, the soundtrack from the animated title sequence from the feature film Catch Me if You Can was played, without visuals. The pupils were asked to identify its genre and intended audience, and to predict its content, message and style of animation. Questions were asked such as “Do you think this is a cinema film or TV programme?” “Who do you think would watch this?” “Who is it for?” “What can you hear?” “What instruments?” “Can you tell what the film is about?” “Why was this style of music chosen?” “Does it have a message? If so, what is it?”

About half of the pupils were engaged by this exercise and provided thoughtful responses. Listening skills varied enormously in this group, and most found it extremely difficult to listen for longer than two minutes. (This exercise was previous tested with Year 10 Media Studies pupils and all were engaged in an exciting, open discussion on sound and meaning.)

Taking notes and developing written skills

Most of the pupils were able to follow and engage in the short discussion on the elements of an animation. They analysed and evaluated what is needed to make an animated film (idea, script, story, character development, character sheets, storyboarding, key framing). Notes were taken with general interest and without protest. The more able learners showed a greater capacity for recording information in notebooks.

The practitioner used many questions to extend and reinforce listening as well as understanding; this clearly promoted and developed pupils’ oral skills. The activity was used to elicit responses and engage pupils in their current learning.
Practical activities

Drawing exercises were used to keep pupils engaged:
- Character design
- Changing shapes into something else (metamorphosis)
- Flipbooks
- Facial expression using minimal lines
- Movement

Activity: Movements

Now act out the following movements while others in your class or group try to draw the positions you are in.

- Kicking a football (four positions).
- Walking (four positions).
- Picking up a cup and drinking from it (six positions).
- Hammering a nail (three positions).
- Putting on a hat (four positions).
- Being frightened by a ghost (four positions).
- A cowboy with a lasso trying to catch cattle (four positions).
- A dog scratching his ear (four positions).

What did the boys think about the animation day?

‘It was good as you could draw and make things. I enjoyed just being out of school, it is fun, when you get out of school. It is not every day you get out and do one subject all day. In school you have five subjects a day.’

‘You do remember it… Flipbook was different than what we do in art…different to school. The fact that you did not keep writing stuff … ask questions about it, showed us some films varied lots.’
‘There would not be many teachers would let you flip through pictures, you let us do things that are more fun, not just stick to writing or drawing. I learnt through this as I understood how little changes make movement in time.’

‘Lots of making things, more practical work, actually more work than in school. She (Karina, animator) explained it very quickly and let us get on with it she helped us out and treated us more what we are; like teenagers. Some teachers are very strict and that is bad sometimes…We would like other to see our animations.

About the practitioners:

‘Teachers get so much stressed. Teachers, kind off sit there and get on with their work. They help the people who are not so good, but kind of leave people who are good with their hands up for a while. At art school, you two just helped everyone equally. What often happens in school is teachers just tell you what the work is and then only help you if you put your hand up, they expect you to be able to do it.’

‘At the art school you came around and asked what are you doing, what is this about? You helped develop our problems. This does not happen very often in class. Teachers only help if you ask for help.’

‘At the art school you came over and ask us do you think it is a good idea if you could do this or that? When we were with you asked ‘could you do it better? A teacher will just say do it better, make it better, neater, they don’t ask you. Or they let you copy out of a page out of a text book.’

‘There would not be many teachers you would let you flip through pictures, you let us do things that are more fun, not just stick to writing or drawing.’

What was learned?

It is important to bear in mind that the breakthrough boys were identified as underachievers because they were either disaffected, disruptive or having other behaviour difficulties. They were not necessarily of low ability.

‘I am underachieving because I was not paying attention I was not behaving as well as I could, put off work. In maths last year, the teachers did this time thing, 5, 10, 15, I got five lunchtime detentions in a week. I sit, and I get bored. I kept talking, shouting, can’t keep my mouth shut, now I have a mentoring session.’

The same boy (who hates drawing, because he thinks he just cannot draw) commented on the cineliteracy day:

‘It was good, it was different, it was different like the flipbook and the things in out sketchbook were different than the things we are doing in art. We did different activities and exercises, but in art we do one thing for two lessons or more. It just goes on’
The pupils learned that there is an industry, and institutions where artists can train. Pupils asked several times during the day about art school life and study, how long it takes, and how good you have to be to study. Pupils understood that animation involves different job descriptions, such as storyboard artists, character designer, director etc.

Pupils made clear connections to what they have seen on TV, and engaged immediately with The Simpsons, Futurama and The Incredibles, but not to any critical depth. In analysing The Simpsons title sequence, pupils were able to analyse character well, but stopped short of identifying the genre as that of dysfunctional family sitcom. This particular group lacked the communication and literacy skills needed to fully deconstruct the study piece, in the ways suggested by Buckingham.

They learned how long it takes to make an animated blockbuster and also how many people are involved. They gained a basic understanding of the skills involved, such as drawing, script writing, communicating through presentation and talking skills. They also discovered that the industry is not male dominated! The boys responded well to the recently graduated animator who led the day, and found it easy to express their admiration of her work.

Pupils worked in a small room, close together on a very hot and humid day in August. Despite these conditions, the cineliteracy day offered a variety of learning models, and multisensory learning approaches in order to engage disaffected learners. These can be divided up as:

- verbal/auditory (learning by hearing) listening to the title sequence of Catch me if you Can, discussing what they hear, listening to instructions
- reading/writing (learning by processing text) taking notes, using sketchbook, script and storyboarding
- kinesthetic or practical (learning by doing) making a thaumatrope, regular drawing exercise, pupils perform in front of the class

The rapid movement from one task to another worked well in addressing behaviour problems. Boys were less likely to become bored and disruptive.

Learning took place because:

- The activity was clearly explained, visually and audibly, e.g. thaumatrope, sketchbook exercises, facial expression and drawing from observation, movements.
- The practitioner used popular animations, such as the Simpsons to catch pupils’ attention, then used them to introduce film language.

During the day new key words were introduced:

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td>CGI</td>
<td>Computer Generated Imagery: Animated graphics produced by a computer</td>
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<tr>
<td>DV</td>
<td>Digital Video</td>
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<td>Key Frame</td>
<td>Frames that show the extreme of an action or a principal movement in an animation</td>
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<tr>
<td>Light Box</td>
<td>A glass/perspex topped box with a powerful light source. Used by animators to trace artwork</td>
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<tr>
<td>LipSync</td>
<td>The matching characters’ mouth shapes in time with recorded dialogue</td>
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<tr>
<td>Pixel(s)</td>
<td>Derived from Picture Element: The smallest unit of a digital image, mainly square in shape, a pixel is one of a multitude of squares of coloured light that together form a photographic image.</td>
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<tr>
<td>Pre-Production</td>
<td>the planning stage of a film or animation before shooting begins</td>
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<tr>
<td>Registration</td>
<td>The exact alignment of various levels of artwork in precise-relation to each other</td>
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<tr>
<td>Rotoscope</td>
<td>A device that projects live-action, film, 1 frame at a time, onto a glass surface below. When drawing paper is placed over the glass the animator can trace off the live action images in order to get realistic movement.</td>
</tr>
<tr>
<td>Showreel</td>
<td>A portfolio of moving image on videotape/DVD/CD.</td>
</tr>
<tr>
<td>Shot types</td>
<td>close up, medium, wide, etc</td>
</tr>
</tbody>
</table>
Case study 6: Understanding Animation Language

Secondary School, Norfolk, Key Stage 4
Mixed Year 10/11 BTEC Media

Cineliteracy Day: The objectives for the day were to explore the world of animation and to deconstruct important elements that constitute film grammar and language. The activities:

- presented a wide range of film and video texts in the classroom.
- helped to develop critical skills.
- gave pupils the opportunity to think about production processes.
- encouraged pupils to see how everything in a moving image/animation is saying something, and contributes in some way to its overall meaning.

Introduction to animation

Students were asked to explain how animation works and why we see movement. Key words were written onto the board and there was a good overall pre-knowledge as most pupils engaged and knew answers to the questions. It was clear that students had been introduced to animation before and/or were taught about the processes of animation. The practitioner discussed and explained the 'Persistence of Vision' theory and warmed up the group with the moving hand exercise and provided examples such as a Thaumatrope, Zoetrope and Magic Wheel.

The students were asked to list the different styles of animation they know and came up with drawn, cut-out, model and CGI. They then tried to match production styles to examples shown by graduate students. Pupils were further encouraged to discuss: “How long does it take to tell a story or convey a message?” The term **BLIPVERTS** is introduced to the group, the concept of the micro advert which conveys a message as economically as possible. Students were led to think about different ways of telling a story.

Demonstrating: a Zoetrope
Practitioner and Class teachers

Deconstructing films and analysing content

Pupils were shown the title sequence of the animation **Lemony Snickets, A Series of Unfortunate Events.** The practitioner encouraged pupils, through questioning, to identify its genre and intended audience, and to predict its content and message.

- Does it follow a narrative or is it more aesthetic and decorative?
- What do you think this is a title sequence for? (Film, TV programme, Cinema, etc)
- Can you tell what it is going to be about from the title sequence?
• Who is the target audience? (children/adults/contemporary/old/specialist audience)
• What do you think the purpose of the title sequence is?
• Does it achieve these ends?

Deconstructing ‘The Simpsons’: Watching the title sequence only.

The students watched the title sequence from a series they all have seen, The Simpsons. In group discussion they analysed genre, intended audience, content and message. “What information is conveyed by the title sequence?” “What do we learn about the characters?” (Homer; father, lazy, overweight but likeable, working at a nuclear power plant. Marge; mother, housewife and community do-gooder. Bart; ten years old, anarchist and vandal with a good heart. Lisa; eight years old, super achiever, feminist, vegetarian and social activist. Baby Maggie; quietly sucking, but observing) “How are characters formed?” Stories are usually character driven. “How do we bring a character to life and make it convincing?” This opened up a more lively conversation as all the pupils could offer answers as they all know The Simpsons. It seemed important to use an animation example students are very familiar with, so they could articulate personal responses to it, and compare those of others.

After showing two examples of character boards, the practitioner asked pupils to choose one of the Simpsons characters and devise their own character sheet for it. Each pupil drew their character from a number of angles, and wrote down key personality attributes. Some added a range of facial expressions. Students then had to think up a story where their character is looking for something in the house, but finds a surprise or twist ending. Students had to plan out their stories using a ten box storyboard template. This exercise was well received and students enjoyed putting themselves into the Simpson's family to think up their ‘funny’ story. I also noticed how quickly this group adopted new terminology and animation language, especially within their storyboards and character designs.

[Images: Storyboarding using journals, Storyboarding Bart's search for a surprise.]

How ‘Wallace and Gromit’ can be used to teach film grammar

Students were asked to look carefully at the different shots they can spot while watching the opening scene of The Curse of the Were-Rabbit. Close up, long shot, medium shots, and differing points of view, were explained carefully by the practitioner. Students were asked to think about “why did the director use a close up at this point?” In this way they developed their understanding of the underlying purposes of film grammar. The exercise also helped the students to think creatively about the types of camerawork they will employ in their storyboarding.
Catch Me if you Can, title sequence

In a sound and image exercise the video screen was covered and pupils were asked to listen carefully to the soundtrack of a short moving image sequence and describe what they have heard. Students had to answer following questions:

- What type of text you think this is?
- What content and style do you think it has?
- How would you describe this music?
- What feelings and images does it suggest to you?
- How does the music contribute to the mood/meaning of a sequence?
- How would the sequence be affected if the music were absent or different?
  - What exactly can you hear?
- Are the sound effects used simply to represent an action or do they contribute to the drama of the sequence?

The practitioner then showed the complete sequence and invited the pupils to discuss how sounds and images affect each other.

- What difference does the sound make to the sequence?
- What difference would it make if either the music, sound effects, or other elements were missing?
- How does sound and image combine to create specific moods?
- What contribution is made by each individual element?
- Does the sound or music change over time?
- What do the changes mean? (e.g. increase/decrease volume)

The group was invited to identify four elements within a soundtrack: music, sound effects, dialogue and atmosphere or silence. They discussed how sound can affect not only the way viewers interpret the images but also what they actually think they can see. They talked about how silence can also have a powerful effect on the interpretation of a sequence.

Overall this activity encouraged students to think more visually, but in certain areas of text analysis, they needed considerable support. This indicated that there is always the risk of trying to cover too much ground in a short time, and losing some students along the way! However, these year 10s were much more able to engage in analytic thought than the Year 9 Breakthrough group, who were given the same exercise.

Music Videos

The practitioner introduced the genre of music videos and asked the pupils to list examples. She played a soundtrack and asked the pupils how they would approach this as a director. The students looked at the animatic for a Gorillaz song, to see how it is used to plan the timing, composition and grammar of a sequence.

Working in small teams, the students then developed ideas for their own music videos. The exercise was modelled on a real life competition to make a Robbie Williams music video. Each team member was asked to adopt an industry style role, such as director, set designer and producer. Each group then faced a panel and pitched their ideas. They were asked to explain how the video would

- target a particular age-group and why.
- sell the idea to the intended audience.
- complement the style and meanings of the selected song.
- be marketed.
- Stand out from the crowd.
The exercise was enthusiastically received by the groups, which each devised storyboards for animated music videos for popular songs. One group produced a character sheet and storyboard about Lilly Allen, set in Victorian London. They discussed use of black and white film to generate a sinister mood, with occasional splashes of colour to draw attention to a concert poster, and Lilly herself. The team devised a financing deal based around product advertising.

Students were equally rigorous in probing their peers, asking about the style of camerawork used, types of shot employed, and how the asking price could be justified.
Case Study 7: Creativity

Cineliteracy Day at a Norfolk High School, Key Stage 3
Year 9 Art and Design

Cineliteracy Days: The objectives for the day were:

- to look at animation history.
- explore animated drawing exercises for warming up.
- learn character development.
- learn about storyboarding and film grammar.
- use the skills learnt through the day to plan ‘Green Animations’.

The class was first given their assignment to produce animated sequences to promote ‘Green Issues’ or ‘Going Green’, before exploring a range of styles shown in short extracts.

Animation History

The practitioner screened a short sequence from Monsters, Inc, then invited the students to name their favorite animations. Answers included Disney and Pixar productions, Wallace and Gromit and of course the Simpsons. (We noticed that boys tend to like The Simpsons and girls tend to like Disney style animation, e.g. Pocahontas or Cinderella.)

In discussing the history of animation, we referred to the first ‘animated pictures’ on ancient wall paintings, and buffalo paintings using more than one set of legs to show motion. We looked at the sequential drawings on ancient Egyptian columns, which, when passed by on a chariot, appeared to move. Finally the practitioner explained persistence of vision. Moving onto Victorian optical toys, pupils had the chance to look at flick books, a zoetrope and magic wheel. These toys are always very useful for demonstrating the optical phenomena underlying animation. The practitioner talked about the first Disney animation using sound, and showed an image of Willy and the Steamboat.
Pupils were then asked to list the animation techniques they know of, and different answers were collected on the board, such as drawn, cut-out, CGI, stop-motion, puppet, clay and pixillation.

The first activity was for students to make their own thaumatrope to help them understand persistence of vision. This exercise was well received, and students enjoyed giving a Victorian toy a modern look. They had the following options: to draw a bird & cage, a bald man & wig, a goldfish bowl & goldfish, or a tree & leaves.

In lesson two the practitioner played a variety of animated sequences from Ardman’s Chicken Run, to Miyazaki’s Spirited Away, and the work of Len Lye and Lotte Reiniger. These prompted a general discussion on animation technique. Students discussed model, drawn styles such as Manga, painting onto 35mm clear leader and cut-out styles.

Key Frame exercise: extreme poses of a movement.

Four pupils were asked to perform sequences of movement in front of the group, e.g. sitting down, bowling, karate and a ballet turn. The class was asked to draw three key frames for each movement performed. The pupils were shy and inhibited about drawing, but the practitioner encouraged the group to work in stick man style. This quickly helped the pupils to focus on analysing movement rather than draftsmanship.
Having watched a short sequence from Spirited Away, pupils were led to think about articulating facial expressions. They were asked to use the top right corner in their sketchbook to draw a small flicker book. The first page contained a happy face, the fifth page a sad face. Their task was to think carefully about the in-betweens, to keep drawing in the same position and to create five sequential drawings.

**Character design**

The practitioner then talked about character and the importance of designing convincing characters. She stressed the importance of getting inside a personality and acting the part. A character should become ‘real’ and believable for its audience, so that its moves and actions are convincing. The practitioner showed an example of a professional character development sheet to introduce the character: Melvin the Mole, who wears yellow rubber gloves, because he does not like the dirt. Students copied the template for a character sheet in their sketchbooks, including a variety of expressions specific to the character, a walk cycle, a biography, likes and dislikes.

The practitioner showed the title sequence from The Simpsons to support visually a discussion of characters and their development. The group discussed how each of the characters’ personalities and roles are defined clearly and differently. She then asked the pupils to pick one of the Simpson characters and quickly note down their main characteristics. Pupils were also asked to draw the physical attributes that underpin each character. Pupils then explained their ideas to the camera and class, and generally found the exercise easy and engaging.

**Storyboard exercise**

Students were quizzed on their knowledge of storyboarding and its purpose. They discussed its use in planning sequences, pace, camera angles, character positions, movement, set design and lighting. The practitioner showed one of her own storyboards, for a 3 minute ‘infomercial’, then screened the finished animation. She handed out copies of the storyboard, in which the order of images had been randomised. The task was to cut out the frames and place them in order, to assess how well students had understood the relationship between storyboard and finished film. They achieved this without problem.

Next each student produced a six frame storyboard for a simple infomercial on a green theme. They worked from templates, and a reference page containing basic film grammar and standard symbols. The students produced some interesting ideas, including fairies that recycle waste, and a reminder to replace forestry. The exercise provided the students with the tools and confidence to develop more sophisticated ideas for their extended classroom assignment to follow.
Case Study 8: Exploring The Tempest using Animation

Secondary School Norfolk, Key Stage 3 (Year 9)

Cineliteracy Day: The aims of the day were to

- learn about drawn animation through simple exercises
- learn the basics of film language
- storyboard a short sequence from The Tempest by William Shakespeare
- film a few selected shots, based on the storyboards

The practitioner started the day by demonstrating the tools and methods of traditional drawn animation. She showed the class a peg bar and light box, and how to register drawings. Through examples, she demonstrated tracing in between drawings and checking movement through a number of drawings. She then showed how to capture drawings to a computer using a rostrum.

Exercise: Blowing a balloon

Each pupil was given a photocopied template with five heads and asked to draw a balloon being blown up. It was suggested they draw frame 1 first, then frame 5 to show the two extremes, then frame 3, then 2 and 4. The exercise proved a simple way to develop a sense of smooth development from frame to frame. Most of the class found this quite easy to master. Each student then cut out and stuck each frame to the corner of a page in their notebooks, to convert the images into a flipbook. This way they could assess how well each sequence worked.

Exercise: Key framing a gesture from life

Pupils were invited to the front of the class to demonstrate simple body movements such as sitting down or bowling a ball. Each student was given 5 sheets of paper and a peg bar and asked to draw stick men to analyse one of the movements. Again each person first drew the extremes, then the third position, then the inbetweens. Many used notebooks to practice drawing first. Some of the more successful examples were then captured and played back on the whiteboard.
Exercise: Key framing speech

Working in pairs, the students then faced each other, and spoke each other's names. Each partner then closely observed the facial movement, drew the key frames, then inbetweens of the mouth forming the word. To assist, each student was given a handout with drawings of all the main phonemes, and mouth shapes.

Exercise: Character development

The students were then asked to summarise the narrative of the study section of The Tempest they had been assigned. The class identified the key characters involved, then allocated one to each of 6 groups of four. Each group then produced character sheets for their selected character, creating coloured face-on drawings of the full body and two close ups of facial expressions.

The class then voted on all the character sheets, so that the best versions could then be transferred to the storyboards they were about to draw.

Exercise: Storyboarding a short section of the text

The class was then asked to divide the study text into six sections, so each section could be visualised as a scene of animation. The sections were then allocated to the six groups. Each group was given a storyboard template comprising six frames. Their task was to visualise their allocated sequence, using at least one close-up, medium and wide shot. Each sequence was designed to run for 10 – 20 secs.

Once this was compete, each team selected one shot from their sequence to animate, and drew it out in 12 frames.

These tasks proved by far the most challenging of the day, and the students were tiring by this stage of the afternoon. They were faced with the multiple challenges of comprehending Shakespeare’s English, assimilating film language, bringing the two together in a visually creative way and analysing movements.
Each group needed intensive one to one support, and some wanted to give up entirely! However, with careful prompting some very worthwhile results were produced. One girl drew Ariel’s lightning storm reflected in Prospero’s eye and drew it as a short animated sequence.

The teacher explained that the class would be given much more time in the coming weeks to work on their storyboards. We felt that it was enough to convey the working methods, and produce a few sketchy ideas by the end of the afternoon.

A high level of focus and engagement was maintained throughout the day. We would have preferred to work at a more leisurely pace. However, this was the only day we could spend supporting the project. It was felt important that the students should end the session with enough confidence and knowledge to realise a finished animation without us, over the coming weeks.

The day also proved that animation can be very usefully integrated into the English curriculum at KS 3 and 4. By asking the students to carefully visualise a sequence from the play, they are led towards a fuller comprehension of the nuances of the text, the motives of each character, and the changing moods of the drama.
Animation in Education: Its impact on literacy

Animation is presented in traditional forms by Disney, PIXAR, Dreamworks and Ghibli, and in television sit-coms like The Simpsons and South Park. Of particular interest is how animation relates to the model of media literacy. (Buckingham, Burns, Reid, Reed, Parker, Leach) Research clearly demonstrates moving image as kind of literacy work, visual communication as a kind of language (Burns, Raney, 1999) Moreover it is argued (Kress, Van Leeuwen) that it is essential to develop a new language to describe these forms of communication and that we need to equip pupils with these languages. It has been clearly suggested that there is a need to find an adequate language of the visuals and to understand how this relates to other ‘grammars’.

Animation activities are able to finalize and examine the theoretical models of moving image literacy previously developed. It is essential to clearly demonstrate how this ‘grammar’ manifests itself in a classroom. All previous research (Buckingham, Burn, Leach, Parker) has acknowledged the use of a new language in video production, the visual language as a new ‘metalanguage’ to describe newer forms of visual communication.

Why teach media is a big question and we looked at animation as one medium to communicate. Buckingham makes it very clear how important the teaching and learning about media, media literacy is. It is undeniable that our digital revolution confronts young people on a daily basis. It is not necessary to argue any further that media is our cultural communication. We also set out to support the arguments that education must be relevant to children’s life outside schools. We hope to demonstrate how schools can do that without major curricula changes.

David Buckingham (2003) makes his case for four key concepts: Production, Language, Representation and Audience. He believes that this concept can be applied to the whole range of contemporary media and to older media as well. We brought together Buckingham’s model and the realities of teaching and learning animation in the classroom. We specifically designed a general model in form of Animation Cineliteracy Days. Through this structure we suggest that animation process offers a variety of different stages in which we find clear ‘film grammar’ or ‘metalanguage’ We clearly labelled what literacy is implied to communicate the entire animation process.

• Production: who makes animations?
• Language: how does animation communicate meaning?
• Representation: how does animation expose the world?
• Audience: how do people make sense of animation?
The case studies demonstrate how this metalanguage is applied within the animation process in planning, post and pre production. This also aims to give teachers a clear guideline or framework of what this new language 'looks' like. We demonstrated how it can be applied, evaluated and understood. By bringing the industry into the classroom we applied and compared the framework already established (Burn, Reid, 2002) to identify similarity usage of grammar that can be integrated into classroom practice as a standard.

Animation has its own terminology and language and it can be learned or taught. Buckingham asks how we might define media literacy in such a way that we could actually teach it. Animation present 'new' literacy and young people approvingly can use this new language. Our case studies have investigated what example of literacy is required and how we can use certain models that critical involves analysis, evaluation and critical reflection. (metalanguage, Buckingham) Animation can be truly seen as form of literacy!

We have identified that quality of work is based on how the medium and the language of animation are used together. Our framework we have established throughout the case studies establish a basic guideline of what this animation literacy looks like. Understanding and applying animation literacy improves the quality of animated sequences. All case studies prove when paying attention to the language of animation leads to better quality work. Teachers only need to be given support and resources to be able to achieve better standard of work. (interview with teachers)

Moving Image literacy has evidently been of high significance throughout the research project. We hoped to prove that it is a language that can be learned. Therefore we created animation cineliteracy activities because we recommend a greater need to understand the language of animation. It is suggested that in working with DV, teachers and pupils need to recognise the moving image as a unique mode of expression and communication. The animation industry sets a clear guideline for animation production and it is possible to translate Well's approach in ‘The fundamental of animation’ into classroom practice.

All case studies approached popular references to television, and students’ experiences of the moving image in popular cultural context was incorporated into all project. Animation cineliteracy work clearly can bring a better relationship between creativity and animation/moving image literacy. We combined the knowledge pupils already possess with new aspects of animation literacy, therefore pupils are be able to reflect more on animation they view. A variety of preproduction work, such as storyboard and character sheet activities, teaches film language and a wider understanding of media literacy. With this approach we proved that pupils who learn about the language of animation will produce better quality and conclusively involve in more effective learning.
Animation Cineliteracy Day

For the cineliteracy days we wanted the pupils to explore different animation techniques in visual communication, this is to ‘teach a grammar of language alongside a grammar of images’ so pupils can find the language to talk about animation. (Burns, 1999) The objectives for each cineliteracy days were to explore the world of animation and to deconstruct important elements that constitute film grammar and language. The days presented a wide range of film and video texts in the classroom. The objectives were to develop critical and theoretical skills for example to identify its genre and intended audience, and to predict its content and message. The Cineliteracy days gave pupils the opportunity to think about animation production processes. It also encouraged pupils to see how everything in a moving image/animation is saying something, and contributes in some way to its overall meaning. All case studies are different as classes were given different projects assignments. However we unpick and present best practice of applying ‘visual literacy’ through film grammar or metalanguage. This will support the need to equip pupils with these new languages. (Burn, Reid)

In each of the Cineliteracy case studies all pupils were given clear assignments to produce animated sequences either to promote ‘Green Issues’, ‘Arms Control’ or a new Pop Group before exploring and understanding a range of animation styles.

Example one: Music Video

Students were introduced to the history of music videos and watched examples, such as Madness, Aha, Peter Gabriel, Tom Tom Club, Gorillaz and Nizlopi. Clips were interspersed with critical discussion. Why are Gorillaz famous whilst others less successful? What techniques of animation were used? Which cost more to make? Which would they be more prepared to spend money on?

This particular project offers different phases and each covers the four concepts Buckingham’s suggested as a model. It replicates the process of forming a virtual band by giving young people the opportunity to design a one minute promotional animated music video. ‘Gorillaz’ provides a good example of how the industry can be used as a case study. Students and teachers attend a cineliteracy day at Norwich School of Art and Design and work afterwards for one full week with a professional musician and animator. During the cineliteracy day students are introduced to the history of music videos with strong emphasis on animation and the commercial growth for instance MTV. This involves question and answer session, comparison two current popular animated music videos, e.g. ‘Gorillaz’ and ‘Nizlopi’ (Monkeehub). Key questions about production can look particular at animation techniques (Technologies) and what difference they make to the product. (Gorillaz are a none-existing virtual band) Who created the Gorillaz and who does what, and how do they work together? (Professional practise) Who owns
the band/company that makes a profit? (The Industry) How do companies sell 'Gorillaz' across different media? Music magazine, T-Shirts, Games, Music, Posters, etc (Connection between media) Who controls the production and distribution of a virtual band, such as 'Gorillaz'? What does copyright mean and how effective is it? (Circulation and distribution) Whose are excluded, and why? (Access and participation) Analysing production students understand the animation industry and commercial profit.

Buckingham describes that every medium has its own 'language' – or combination of languages – that it uses to communicate meaning. How does animation (Technology) affect the meaning that is created in music videos? How does animation communicate meaning? A-ha sold millions of records primarily because of the success of one extremely creative video. The video for "Take On Me" blends live action and animation to tell the tale of a young woman whose fantasies become reality as a hand reaches out from a comic book and takes her into a two dimensional world. How are the grammatical 'rules' of animation established? (Codes) Here students compare different types of music videos and also identify shared rules, as well as patterns of variation across music genre. How do these rules operate in different types of animation? (Genre)

Many pop videos combine live action and animation to convey feelings and ideas. Students watch a sequence of film and try to concentrate on how does it help to tell the story or create the mood? (Meanings) Looking at language means to understand the effects of choosing certain forms of animation – such as a particular type of drawing (A-ha) or digital computer animation (Gorillaz)? (Choices) How does the use of animation become familiar and generally accepted? (Conventions)

In the course of language students produce a storyboard from different animated music videos. Students deconstruct the image by breaking it down into its basic part. This helps students to analyse meaning conveyed through the combination or sequences of live action, animation and sounds. (Combination) (Peter Gabriel, Gorillaz, A-Ha, Frank Zappa, Devo, Madness, Talking Heads, The Cars, animated music videos on www.ifilm.com, etc)

During the project students produce their own representation of youth culture, virtual culture and values. Representation invites them to make music and creates characters, aiming the function of stereotypes, both for producers and for the audience. (Stereotyping) How does their work represent their social groups? Students are encouraged to record in their sketchbook (media diary) the uses of animation in music videos within their environment. Most important students bring their own contemporary life-style, knowledge, interest and culture into this project. This affects their views of social issues and groups. (Influences) Specifically the music industry has a great influence and effect on young people, when compared with family or schools. Does animation has positive effects on young people’s attitude? What view do the ‘Gorillaz’ particular have about the world? What moral or values do they put across? (Bias and objectivity) The ‘Gorillaz’ are a virtual band and the characters are fiction
with intention to be realistic. What makes them more realistic than others? (Realism) Students are probed to create a virtual existence, to decide what to include and exclude and who speaks and who is silenced. (Presence and absence)

Through research and case study students target their audience, influences, pleasures and preferences. This will help to understand how audience are targeted and measured, and how media are circulated and distributed. A focus on ‘Gorillaz’ as research task and case study with close look into the global trade can help students to also identify their target audience. Are the ‘Gorillaz’ targeted at a particular audience? How do they try to appeal to them? (Targeting) Working to a brief, students have to reach a particular audience. This will help them think hard about what they want and how they are going to visualise it. Investigating a variety of animated music videos students can understand what assumption the producer/industry makes about their audience. (Address) In a presentation students have to demonstrate how to make their virtual band reach the audience and how audience know what is available. (Circulation) Students are to include the consideration about the role of gender, social class, age and background in their audience.

Music Videos: Hot seating

The practitioner introduced the genre of music videos and asked the pupils to list examples. She played a soundtrack and asked the pupils how they would approach this as a director. The students looked at the animatic for a Gorillaz song, to see how it is used to plan the timing, composition and grammar of a sequence.

Working in small teams, the students then developed ideas for their own music videos. The exercise was modelled on a real life competition to make a Robbie Williams music video. Each team member was asked to adopt an industry style role, such as director, set designer and producer. Each group then faced a panel and pitched their ideas. They were asked to explain how the video would

- target a particular age-group and why.
- sell the idea to the intended audience.
- complement the style and meanings of the selected song.
- be marketed.
- Stand out from the crowd.

The exercise was enthusiastically received by the groups, which each devised storyboards for animated music videos for popular songs. One group produced a character sheet and storyboard about Lilly Allen, set in Victorian London. They discussed use of black and white film to generate a sinister mood, with occasional splashes of colour to draw attention to a concert poster, and Lilly herself. The team devised a financing deal based around product advertising.
Students were equally rigorous in probing their peers, asking about the style of camerawork used, types of shot employed, and how the asking price could be justified.

Example two:

1. Deconstructing film and analysing content

Pupils were shown the title sequence of the animation *Lemony Snickets, A Series of Unfortunate Events*. The practitioner encouraged pupils, through questioning, to identify its genre and intended audience, and to predict its content and message.

   a. Does it follow a narrative or is it more aesthetic and decorative?
   b. What do you think this is a title sequence for? (Film, TV programme, Cinema, etc)
   c. Can you tell what it is going to be about from the title sequence?
   d. Who is the target audience? (children/adults/contemporary/old/specialist audience)
   e. What do you think the purpose of the title sequence is?
   f. Does it achieve these ends?

2. Deconstructing ‘The Simpsons’:

The students watched the title sequence from a series they all have seen, The Simpsons. In group discussion they analysed genre, intended audience, content and message. “What information is conveyed by the title sequence?” “What do we learn about the characters?” (Homer; father, lazy, overweight but likeable, working at a nuclear power plant. Marge; mother, housewife and community do-gooder. Bart; ten years old, anarchist and vandal with a good heart. Lisa; eight years old, super achiever, feminist, vegetarian and social activist. Baby Maggie; quietly sucking, but observing) “How are characters formed?” Stories are usually character driven. “How do we bring a character to life and make it convincing?” This opened up a more lively conversation as all the pupils could offer answers as they all know The Simpsons. It seemed important to use an animation example students are very familiar with, so they could articulate personal responses to it, and compare those of others.

After showing two examples of character boards, the practitioner asked pupils to choose one of the Simpsons characters and devise their own character sheet for it. Each pupil drew their character from a number of angles, and wrote down key personality attributes. Some added a range of facial expressions. Students then had to think up a story where their character is looking for something in the house, but finds a surprise or twist ending. Students had to plan out their stories using a ten box
storyboard template. This exercise was well received and students enjoyed putting themselves into the Simpson’s family to think up their ‘funny’ story. I also noticed how quickly this group adopted new terminology and animation language, especially within their storyboards and character designs.

3. How ‘Wallace and Gromit’ can be used to teach film grammar

Students were asked to look carefully at the different shots they can spot while watching the opening scene of The Curse of the Were-Rabbit. Close up, long shot, medium shots, and differing points of view, were explained carefully by the practitioner. Students were asked to think about “why did the director use a close up at this point?” In this way they developed their understanding of the underlying purposes of film grammar. The exercise also helped the students to think creatively about the types of camerawork they will employ in their storyboarding.

4. Catch Me if you Can, title sequence

In a sound and image exercise the video screen was covered and pupils were asked to listen carefully to the soundtrack of a short moving image sequence and describe what they have heard. Students had to answer following questions:

- What type of text you think this is?
- What content and style do you think it has?
- How would you describe this music?
- What feelings and images does it suggest to you?
- How does the music contribute to the mood/meaning of a sequence?
- How would the sequence be affected if the music were absent or different? What exactly can you hear?
- Are the sound effects used simply to represent an action or do they contribute to the drama of the sequence?

The practitioner then showed the complete sequence and invited the pupils to discuss how sounds and images affect each other.

- What difference does the sound make to the sequence?
- What difference would it make if either the music, sound effects, or other elements were missing?
- How does sound and image combine to create specific moods?
- What contribution is made by each individual element?
- Does the sound or music change over time?
- What do the changes mean? (e.g. increase/decrease volume)

The group was invited to identify four elements within a soundtrack: music, sound effects, dialogue and atmosphere or silence. They
discussed how sound can affect not only the way viewers interpret the images but also what they actually think they can see. They talked about how silence can also have a powerful effect on the interpretation of a sequence.

The Cineliteracy Days prove that there are ways to ensuring an equal and dialectical relationship between theory and practice’ (Burn) Combining animation cineliteracy with the making of animation has clearly succeeded in combining important concepts like genre, narrative, audience with the process of making animation. This is to support the call to extend the nature of theory as in Buckingham. The cineliteracy days clearly demonstrate that theory is not only to be associated with analysis of, never the production of media text.’ (Burn)

Animation can bring together subjective language with the more abstract language of analysis. But more it can be done with a preferred form of language in a classroom, so teachers can take a start. Applying a framework of basic film grammar through animation allows all pupils to talk about animation.

Example of interview log:

The presentation at the end of each cineliteracy day reveals how essential new language is for young people to express their thoughts and decision making. We have evidence that young people can adopt a new literacy within one day to communicate their creative process. Their language changes undoubtedly.

Overall all activity encouraged students to think more visually, but in certain areas of text analysis, some need more considerable support than others. This indicated that there is always the risk of trying to cover too much ground in a short time, and loosing some students along the way! However, e.g. year 10s Media Studies were much more able to engage in analytic thought than the Year 9 Breakthrough boys, who were given the same exercise.

Especially working with a media studies group we noticed how students enjoy applying a professional language to sell their ideas to the audience. Looking at older age groups, 13 – 16, e.g. Animated music videos can offer a variety of analysis here. This case study can debate that the group had clearly the task to create an animated pop promo: that is too aim at the audience, audience interest, needs, desires, a clear context of media consumption. Animated music videos can debate that it is not essential necessary that young people want to be their own audience only. (Buckingham 1999) Animated music videos can also support the argument that young people will draw upon their cultural experiences (The Gorillas, Tom Tom Club) Supporting Vygotsky ‘that creativity is an indispensable element of growth and development, not just for children but for the whole of an individual’s life’
Animation in Education:

Creativity, young people and animation

‘Creativity means you have imagination and people without imagination are boring’ Year 9 girl

We looked into the question of creativity, how we define creativity in young people and how we can assess this. Banaji, Burn and Buckingham (2006) identify a distinct set of rhetorics of creativity which can be used for researchers in the field of creative learning. Here core concepts of creativity ought to become or suggest a framework or matrix. It is not for this research to find answers on how to define creativity however we are able to suggest a framework or model of creativity of animation. (Beetlestone 1998) All animation activities offer different stages and processes to identify its potential impact on creativity.

Firstly we used animation to understand the difference between creative learning and cultural learning. How is animation linked with young people's identity? This has been previously investigated through animation projects with primary schools children and conclusively said that that children draw upon their own cultural experiences in making their media. (Burns, Durran) Here it is investigated how creativity is related to the media cultures which feed into production work like animation. Here to imagination becomes part of the ability to recreate the past from cultural experiences and to imagine a new future by transforming memories of past perception (Burns on Vygotsky)

Raising questions about the difference between creative learning and cultural learning

- What do we mean by creativity?
- How can we gather evidence of creativity?
- How will we recognise creative activity?

As in this research animation has proven to become a re-play of young people media experiences. With younger children we often notice the immediate ‘puppet’ play when using plasticine animation. Especially younger children role play scenes or scenarios they are familiar with from popular television, e.g. soap operas such as Eastenders. Boys particularly focus on sports and football, and most characters have ‘nike’ symbols or red David Beckham T-shirts.

It is important to realise that the semiotic resources come from two places: from the wider media culture the children inhabit, and from the classroom. Particular this age group (4-8) is transfixed on moving image as in television. The transition of understanding the difference between real life moving image, puppet play or animation is mostly recognised at the age of middle school. There is clear difference between the animation
produced at three levels of ages, primary, middle and secondary education. This also proves a clear level of cultural influences.

Reviewing that creativity is still seen as somehow an ‘intangible’ word in schools questions if teachers have enough experience in creative work themselves. Not many have an artistic background or work experiences in the creative industry. Truly we must also keep in mind that animation or film making was only possible for professional artists or industry till about five years ago. Our digital revolution made professional industry accessible to all, artist or non artists. We have discovered a new potential of creativity with dv technology and findings suggest that animation offers best examples. One very important area to address is for teachers to be more innovative and apply this new form of creativity to the classroom. We suggest that animation in education offers a stepping stone and bridge between technology and creativity. However it is important to provide teachers with necessary teaching resources to support and guide them. Resources can help teachers to think creatively and become more creative in their classroom. Through good practice we showed that ‘creativity’ can be taught and applied by any enthusiastic teacher.

Our examples can help to further devise, develop and apply a clear model of specific creative activities that suggest criteria for evaluation the quality and including that also of the teachers’ role. This work executed over longer terms, takes the learners through the entire process of animation. To embark on creativity animation in education:

a) Provides the opportunity for young people to pursuer their interest, enthusiasm and different abilities or talents
b) Enhances critical thinking, communication and problem solving skills
c) Opens up new and innovative idea
d) Increases self-esteem
e) Improves learning, motivation and approach
f) Offers new literacy to explore new terminology
g) Equips pupils for their future lives

One of the pupils explains: ‘I think creativity is inspiration to something and depending on the mind, the more inspiration you get the easier inspiration comes to you, the more creative you are’ Listening to the group of GCSE art and design pupils, creativity does not happen without inspiration.

1. Example: Animation in art and design education

This case study describes examples of animation work in an art department in a secondary school. The making of six short animated clips debates around art education to concern itself with animation and consequently to engage with aspects of visual culture, including television, new media and the internet. We argue that animation will give art education a central point in our thinking about new cultural forms.
It is not necessary said that arts education automatically covers creativity or that creativity is to be associated with art-making. Creative activity is characterised by being imaginative, purposeful and original and is concerned with quality or value. Because is that learning is best facilitated through creating a situation where people can learn at their own pace, doing things that are relevant to them.

Creativity reached a standard definition as ‘imaginative activity fashioned so as to produce outcomes that are both original and of value.’

Previous research claims that in order to know about art it is necessary to know cultural and social study of the context in which it is produced. The national curriculum requires within its outline of progression in art and design that for pupils to: ‘respond to personal, social, cultural and environmental issues within the broad themes of ‘themselves and their experiences’ and ‘natural and made objects’ and ‘environments’ Nevertheless it is still doubted that young people need to be aware of these context when making art. Sadly young people are still limited to ‘engage with contemporary art, craft and design and work from a variety of genres, styles and traditions.’

Teaching animation in the art and design curriculum can be suggested for a variety of reasons, e.g. Buckingham's argument to make the curriculum relevant to children's lives outside schools will support to make animation relevant. ‘Pupils should be given opportunities to apply and develop their ICT capability through the use of ICT tools to support their learning.’ He uses the term media to include the whole range of modern communications medium such as television, the cinema, video, radio, photography, advertising, newspaper and magazines, recorded music, computer games and the internet. However animation is not mentioned. He states: ‘It is quite extraordinary that the majority of young people should go through their school careers with so little opportunity to study and engage with the most significant contemporary forms of culture and communication.’

Animation reaches large audiences and should be seen as creative ‘media’ since it too ‘provide us with mediated versions or representations of the world’ The growing and everyday presents of animation in young people consumption of culture offers meaning around their new social concepts, including identity, career choices, egos and gender. Their particular skills, knowledge and interest ought to be recognised and integrated within the formal setting of schools. Art and design education isn’t just about pencil, paint, paper or clay it also ought to be about for example making an animated music video. Current and ongoing debates around art education offer to concern itself with all aspects of visual culture, including television, new media and the internet. It is agued that this would give art education a central point in our thinking about cultural forms. Research has declared that in order to know art it is necessary to know the cultural, social and anthropological study of the contexts in
which it is produced. Unfortunately it is still doubted that young people need to be aware of these context when making art.

Buckingham further suggests principles offering good practice in media education where he uses three headings, overall aims, curriculum planning and pedagogy. He also suggests good practice in media education through three elements such as overall aims, curriculum planning and pedagogy. He includes six techniques such as textual studies, contextual studies, case studies, translation, simulation and production.

Within art and design education the six techniques of good practice are defined in different ways. Teaching should ensure that investigating and making includes exploring and developing ideas and evaluating and developing work. It is clearly identified that pupils should be taught the knowledge, skills and understanding through:

- **exploring a range of starting points for practical work** (for example, themselves, their experiences, stories, natural and made objects and the local environment)

This characterizes *simulations* and the form of role-play where series of choices are made or problems solved. The ‘Gorillaz’ project asks students to create a virtual band. Here *translation* is integrated in how ideas and issues are represented in different ways in different genres or media forms, or for different audiences.

- **working on their own, and collaborating with others, on projects in two and three dimensions and on different scales.**

This categorizes the *case study*: production, marketing and consumption where students launch a virtual band. Students investigate the work of a single media company to analyse the use animation in the music industry. Investigating particular case studies students cover, production, language, representation, audience.

- **using a range of materials and processes** for example, painting, collage, print making, digital media, textiles, sculpture.

This can be seen as the full process of the *production* itself, the making of the actual animation. Students are taught to either use drawn or model animation cut-out, pixilation, blue-screening, photography, etc. (Students acquire a language, a *metalinguage* by constructing storyboards from moving image to imply a formal grammar, Buckingham)

- **investigating different kinds of art, craft and design** for example, in the locality, in original and reproduction form, during visits to museums, galleries and sites, on the internet.
Animation cineliteracy days: Contextual analysis and the close attention to context will enable students to understand the connections between particular forms of language and two other key aspects of Buckingham’s model: production and audience. Analysing the popular music industry like the ‘Gorillaz’ can recognize how contemporary kinds of art, craft and design enter pupils day to day living through TV, internet, concerts, radio, magazines or cinema.

Buckingham also highlights that there is a widening gap between children’s worlds outside and the emphasis of many education systems. He emphasises the necessity to bridge the widening gap between the schools and the world of children’s out-of-school experience. Focusing on animation in art and design education surely begin with the knowledge that children already possess. ‘It sets out a rational for media teaching that reflects the changing nature of contemporary culture, and of young people’s experiences.’

With animation there are no exams to offer results, apart from a completed process of animation from idea, script, story, character development, character sheets, storyboarding, key framing, rostrum work, sound recording, editing and final presentation to an audience. There is clear evidence that pupils collect visual ideas, work in a team, experience professionalism working under pressure to tight brief, apply computer skills, imply new technology, learn new editing software or record sound.

Animation is characterised by a wide range of practical, as well as critical and social activities leading to a later difficulty in obtaining a view of judgement of quality and how to understand or assess them. The task is challenging because working in animation also includes terms such ‘imagination’ and ‘originality’. Attempts to produce methods for the assessment are not straightforward, and it can be further debated how to formerly assess creativity or creative achievement. It is understood to be necessary, but also seen as problematic as in research literature (Gardner, 1991, Rayment, 1999, Woods and O’Shannessy, 2002)

There are tensions between assessments of creative activities for diverse reasons. It is undeniably controversial to assess animation activities to ‘fit with curriculum standards/attainment targets’, e.g. through tests and examinations. However with animation we were able to assess in order to give feedback to pupils and suggest for improvement or progression. It allows me to recognise meaningful and original expression.

However animation as a subject is similar to art and design education, it includes a range of practical activities, such as drawing, painting, graphics, crafts and in particular ICT. (Depending on different animation projects it also can include, printmaking, textiles, ceramics, metalwork) Within art and design education creativity is simply understood as ‘innovative application of knowledge and skills’ (NACCCE, 2000, p.30)
Alongside creativity it is also stressed to develop critical thinking and knowledge and understanding of theory and practice.

### ABOUT THE ART AND DESIGN ATTAINMENT TARGET AND LEVEL DESCRIPTIONS

The attainment target in art and design sets out the knowledge, skills and understanding that pupils of different abilities and maturities are expected to have by the end of each key stage. Attainment targets consist of eight level descriptions of increasing difficulty, plus a description of exceptional performance above level 8. Each level description describes the type and range of performance that pupils working at that level should characteristically demonstrate.

The level descriptions provide the basis for making judgements about pupils’ performance at the end of key stages 1, 2 and 3. The majority of pupils are expected to work at:

- levels 1-3 in key stage 1 and attain level 2 at the end of the key stage
- levels 2-5 in key stage 2 and attain level 4 at the end of the key stage
- levels 3-7 in key stage 3 and attain level 5/6 at the end of the key stage.

By indicating expectations at particular levels and by charting progression in the subject, the level descriptions can also inform planning, teaching and assessment. Please note, level descriptions are not designed to be used to ‘level’ individual pieces of work.

In art and design, the level descriptions show progression in three broad aspects:

1. exploring and developing ideas
2. investigating and making art, craft and design
3. evaluating and developing work.

Assessment of animation or pupils’ ICT capability is no less problematic. It is easier to identify whether pupils can or can’t use particular skills and techniques. It is not possible to use traditional measures (SATS & CATS, see diagram) and tests to identify the indirect effects of the use of Animation/ICT on motivation, attitude, problemsolving capability, critical thinking and project handling abilities.

Alongside the teacher we have developed positive approaches to the complexity of assessment by using learning outcomes focusing on animation process and animation product along the criteria for the use of technologies (camera work, rostrum work, editing) to support pupils creative processes. We have recognised that traditions and expertise in assessment in both art and media education can inform approaches to peer review, evaluation and formative assessment, recognising the unique contributions of new technologies. It is essential to define achievement and assess their learning differently. Here achievement can be assessed as e.g. in secondary art and design education.

The statutory requirements of the National Curriculum for Art and Design (2000) includes the following statements.

1. Pupils should be given opportunities to apply and develop their ICT capability through the use of ICT tools to support their learning in all subjects.
2. Pupils should be given opportunities to support their work by being taught to:
a find things out from a variety of sources, selecting and synthesising the information to meet their needs and developing an ability to question its accuracy, bias and plausibility

b develop their ideas using ICT tools to amend and refine their work and enhance its quality and accuracy.

c exchange and share information, both directly and through electronic media

d review, modify and evaluate their work, reflecting critically on its quality, as ICT progresses.

Key Stage 3
In developing art and design skills, pupils should be taught:

- to gain access to a wide range of art knowledge and information sources and to explore ideas for different purposes and audiences (for example using the internet to search for primary and secondary sources of Information)
- to experience alternative ways of working, investigating and combining imagery (for example using a range of art software to develop ideas linked to work in two and three dimensions and to explore time based media)
- to communicate in different ways and to receive critical feedback on their ideas (for example sharing images by e-mail or a website)
- to consider the wider impact of digital/new media on art and visual culture.

Given the changes in the curriculum and the increase in opportunities made available by the National Grid for Learning, it is important that teachers identify how ICT can be integrated effectively to ensure that all pupils’ benefit from the enhancements ICT can offer.

With this we put side by side recent debates to raise more awareness over the necessity of enhancing the creative education in secondary school curriculum and with this a more personalised learning environment. With this we hope to underline that assessing learning is predispositioned in many schools' as teachers are forced to meet the government requirement to achieve better results. (This is also a funding issue, better results, more money)

“Facts are like fish. They go off.” (attributed to Oscar Wilde, Hymer 2003)
Many teachers, and no doubt students, are turned off by the National Curriculum. Rhys Griffith (1998) is critical of it’s “emphasis upon decontextualised ‘factual’ knowledge rather than socially placed learning, its attendant crude methods of assessment and its promulgated didactic pedagogy is antithetical to the development of an educated citizenry” (Griffith, 1998)
Animation in education
Its impact on Learning:

Street-smart, a new generation of learners: What impact has animation activities on boys’ learning?

This specific case study demonstrates positive learning approaches through integrating animation activities in secondary education.

This research describes animation activities that explain and identify positive engagement in learning, specifically for boys at risk of underachieving in secondary education. The research contains examples of active research as well as the views of teachers, practitioners and year 9 pupils. Working with 13-14 year-old boys demands an understanding of their cultural lives, their search for self identity and their frame of mind. We explored the impact animation can have on teenage boys with attention to the influence motivation has on their attitude towards learning. Data collected from working closely with twenty Year 9 boys (Breakthrough programme) suggests that the teaching of animation has a positive impact on teenage boys’ attitudes towards learning with an essential source found in motivation. Fact is, if learning or schooling isn’t cool in their terms, it won’t be accepted neither will it motivate them. We drew on evidence on mind-set in the way boys approach and assess learning, what knowledge and benefit they gained, why and how they acted in response to animation activities.

As a Year 9 boy, 13 years of age describes his character he developed during an animation exercise we were astonished and curious where he got his ideas from?

‘His name is Hermi, he likes drugs, and fighting and drinking. He has black hair and is always in jeans. He starts drinking at seven o’clock in the morning, than he does some pills, and than he goes over to some boys, shouts at them some abuse and get’s his head kicked in. The boys leave him in a pile of his own blood but he gets up the next morning and laughs.’

This example is similar to the other characters designed by the rest of the group. Characters were guy, black, losers, alcoholics, violent, nasty-funny, high on drugs, snorting cocaine with jobs at MacDonald’s, gingered hair, poor and heavy smokers, (drugs). They all laugh when presenting their characters, giggle, make fun of each other (that’s you, Jimmy, no that’s you Sam) and play the punch game. There was a lot of laughter from the boys however the two teachers who accompanied them did not laugh but wrinkled their faces embarrassed at us.

What impact has animation on teenagers? We are drawn to the idea that this is very important, and seek to understand what knowledge young teenagers are developing, where, when and how they gain this? We highlight this teenage learning practice and believe that such
understanding will help teachers and schools to integrate a more relevant pedagogy for education.

There is sufficient research and evidence that new media technology can help students to learn and teachers teach more effectively. It is not as simple as to suggest that animation will make a difference by making films or playing with plasticine. However findings suggest that animation can make a difference but there are a number of issues to be raised if animation has a positive impact.

Why use animation activities? Not only because boys obviously like animations, cartoons, cinema and computers but because animation plays a huge part in their contemporary youth culture. Currently popular animations are South Park, The Simpsons, Teen Titans, Naruto, TMNT, Futurama, Manga (studio Ghibli), Family Guy, Happy Tree Friends, Invader Zim, Pingu, Tim Burton’s Corpse Bride, Adman’s Wallace and Gromit, Chicken Run, Chicken Little. With understanding of young peoples’ interest patterns, animations offer a simple answer: they are cool and they are funny!

Young people are driven by these trends, fads and fashion. It is evolving every day and peer pressure, brand appeal and parent power all combine to play a role in the choices young people make. Garry Wilson presents the full viewpoint as to why boys underachieve at school and what can be done about it. One statement is of particular interest to this investigation that ‘for many boys, it is ‘cool’ to fail at school, particularly in academic subjects. If you are studious and male, you are labelled a ‘geek’ or a ‘bof’, although often it is OK to shine in sport and subjects such as art. When we asked the boys when they believe they learn best we received similar response, ‘when I am really enjoying it, when I like it or when it is fun.’

Our homes are transformed into the site of multimedia. It is suggested that young people spend more time with media than in front of teacher or school (Livingston, 2002) Here it is also said that personal ownership of media dramatically increases in the early teenage years, as part of the development of identity. The internet site YouTube is full of teenage home made movies, blogs, animations and music. Most of the videos are produced by and for teenagers. Davies suggests this to be a real experience, and teenagers enjoy playing with the aspects of their identity, not only representing themselves to others in a particular way, but also to view themselves in specific ways, speaking a common language that binds them together and weaving a narrative across to create a community with clear cultural markers. (Digital Generations, An Exploration of teenager’s Informal Online Learning) Teenagers are simply enjoying their engagement in their personally owned media world, therefore are willing to learn necessary new skills. This is why we began by looking at motivation and we collected evidence of how animation stimulates motivation and consequently can explain the kind of learning this promotes.
Data and research collected over the last years continuously raises issues of boys underachievement in schools (Gary Wilson 2003, Dfes 2003, Ofsted 2003) However not much attention is given to motivation (Martin, 2003) Although it is not suggested that the role of motivation is not recognised, but more depth analysis of specific facets of motivation that are relevant to boys’ engagement and achievement at schools are to be addressed. Motivation in education can be defined as a concept used to describe the causes within an individual to promote positive behaviour towards a goal. It plays a vital role in student learning and for that reason achievement. Other research has suggested that boys are more confident in using ICT (Chris Comber, 2002) and that re-engages boys in learning, motivates them. Still it is argued that just giving boys a laptop will not make them better learners. Mike Johnson, 2002, expresses that ‘evidence shows clearly that ICT well used is motivational, but getting the pedagogy right is fundamental,’ he also says, ‘many computer packages are simply instructional and don’t have much impact. What counts is the interaction between the teacher and the pupil with the materials.’

To investigate this best we invited twenty boys from a breakthrough programme and their teacher from a secondary city school to participate. (The mixed comprehensive school is located in a middle class housing estate, five miles outside Norwich) We observed the making of five short animated clips (infomotion) by five groups of boys, who currently underachieve in mainstream education. This is mainly caused by their lack of motivation and interest that leads to poor behaviour. The group attended one animation cinelitearcy day at Norwich School of Art and Design, followed by two days of workshops supported by three professional practitioners and one class teacher. The general aims and objectives were for the pupils to develop skills and understanding required to produce a short animated ‘infomotion’, to develop knowledge and literacy over the processes and principles of animation, including the opportunity for personal development and ideas. In summary the three days workshops consisted of three stages; to explore animation techniques, to design and plan animations and to produce an animated sequence to inform peer groups on how to behave around school. (infomotion *)

We focused on simple basic questions such as what knowledge pupils’ gain and how they learn, when they learn best and where? Observation by video recording and interviews were taken during all activities to analyse boy’s motivation, with a closer look into their learning practice. All material evaluated includes teacher’s opinion, pupil’s opinion, and classroom observation offering different perspectives on what works and what does not work in the classroom.
Animation Cineliteracy Day

The animation activities were not only about making animations only. The ideas behind this cineliteracy day were for all boys to explore different animation techniques in visual communication, this is to ‘teach a grammar of language alongside a grammar of images’ so pupils can find the language to talk about animation. (Burn, Digi-teens, 1999) Clearly the activities had to engage the boys for the entire day. Already on the boy’s arrival at 9.15 in the morning they seemed excited, curious and maybe nervous, but extremely lively and energetic. We knew instantly that a group of twenty boys meant harsh handling but in need for educational entertainment. Followed by two teachers the group of twenty were led to a rather small room, we intended to spend the entire day in. Twenty boys, two teachers, one animation practitioner, one observer (me) and one film maker, it felt slightly claustrophobic, hot and ‘smelly’ shortly after.

As part of the introduction the group was set a professional brief to create an ‘infomotion’ to promote ‘positive school life’. This aimed to engage all boys fully with the creative process of animation, introducing the professional creative industry by working under pressure in collaboration with others, furthermore within a realistic art school environment. All were given their personal sketchbook to collect their work during the project. After introducing the boys to the main aim of the project and team, Martin (camera), Karina (animator) and myself (sound/researcher) Karina asked the boys to introduce themselves to the camera and through telling us their favourite animation. At the beginning half of the boys did not say on camera what animations they like. Most commented or repeated what the previous classmate said, e.g. ‘..my name is…haven’t got one.’ However Futurama (‘..it’s funny.’), Simpsons, South Park, Robot Chicken (‘..because it is funny and violent.’), Wallace and Gromit (‘..it is original.’) Crumped Twins (‘..it’s funny.’) were mentioned.

The room layout and three sets of tables created immediately three diverse groups of boys. We instantly noticed a differences in groups and vibes: table one, to the left of the room, established a noisy, provocative, a little rebellious attitude, where table two in the centre demonstrated a more interested, engaged, held back but alert, somewhat motivated attitude and table three interestingly hosted the slow, unsure, shy or ultimately less capable group. (Chavs, Skaters, and Emos) *

The group watched different types of animated products. They were given an introduction to the animation industry and explored and developed a basic level of understanding in their sketchbooks. It was important to develop knowledge and literacy of animation, processes and principles. (Pupils explore ideas and assess visual and other information, including images and artefacts from different historical, social and cultural contexts.) *

Figure 1. 1

National curriculum requirements
The group meant to use this information to develop their ideas, taking account of purpose and audience with the aim to continue their personal ideas when returning to high school with their classroom teacher for one lesson per week over the following four weeks.

This activity Persistence of vision aims to introduce an understanding of what animation is and why it works. What is Animation? Cartoons, is the most obvious response the boys called out, others answers were computer animations, drawings, making stuff move or taking lots of pictures. Why do we see these images as moving? You use computers to do that, but most boys could not answer this question. They all admitted watching animation daily but were not able to explain the technique behind animation. There are two ways to explain why we see images move: Animation is the process by which we see still pictures MOVE. Each picture is shot on film one at a time and is shown at the rate of 24 pictures per second making the pictures appear to move. The reason our eyes are tricked into seeing movement can be explained by the ‘Persistence of Vision’ theory. Our brain holds onto an image for a fraction of a second after the image has passed. If the eye sees a series of still images very quickly one picture after another, then the images will appear to move because our eyes cannot cope with fast-moving images - our eyes have been tricked into thinking they have seen movement.

The group was asked to wave their hands in front of their eyes very fast, so they are able to see several hands. Each pupil than was shown a thaumatrope, zoetrope and flipbook as examples and next asked to make their own thaumatrope.
Only telling the boys the technical facts about animation could have caused a major riot but engaging them into making their thaumatropes, plus showing the finished example to the camera, worked. This demonstrates basic good teaching practice “Tell me and I'll forget; show me and I may remember; involve me and I'll understand.” (Chinese proverb)

It can be a simple task to explaining the complexity of the Persistence of Vision theory, by making the thaumatrope and as a result it was accomplished with remarkable interest and enthusiasm. Overall the drawing skills were of low standard, and pupils were eager to get it right. Here positive reinforcement was regularly made to motivate the boys. Insecurity was visible but the simplicity to create a moving image effect balanced this. All enjoyed the variety of activities and the result, especially to show it to the camera. Listening skills varied enormously in this group, most found it extremely difficult to listen longer than two minutes.

Clearly the teaching of animation predominantly reflects principles and generalisations from things relevant to boys’ interests (Martin, 2002, p. 145) The practitioner (Karina) used this advantage but had to apply a very energetic teaching style to respond to the boys’ active and fast learning habit. Predominately from the start we all abandoned the traditional teacher talk as the main mode of instruction. (Martin, 2002, p. 152; West, 2002, p. 168) Karina provided as much variety in instruction as possible. The boys were certainly not all the same and therefore, room for diverse ways of learning among boys was given. (Martin, 2002, p. 152; West, 2002, p. 168)

A variety of short animations were used to invite pupils into answer and question activities mostly followed by practical hands on exercises. The expectation and standards were high and pupils were given knowledge related to the animation industry and animation terminology. Pupils were meant to unpack the layers of meaning by developing basic skills more critical, attentive and knowledgeable. Here the practitioner followed Buckingham’s example on how e.g. the Simpsons (or any other television animation) can be used as a case study. Following Buckingham’s four
key concepts pupils were offered to learn how everything in a moving image text is saying something, and contributes in some way to its overall meaning. (D. Buckingham, Media Education, p.62) In this case the practitioner concentrated on the characters of the Simpsons and what pupils can learn about them just through the title sequence. The following questions were used to engage the boys in an open conversation. What kind of a person is Bart, why and how do we know this from only watching the title sequence? Who else can you see apart from the family, why? How about Homer, what kind of person is he, etc?

We think pupils make clear connections to what they see on TV, or engage with animations they watch, such as Simpsons, Futurama or the Incredibles. However this does not presume it is in any critical or analytical means, and these boys simply enjoy watching movies, especially on a big screen. Here Buckingham talks about the essential need for students to build critical abilities through media education. He also refers to the term ‘multiliteracy’ and claims that ‘literacy today is inevitably and necessarily multimedia literacy; and to this extend, traditional forms of literacy teaching are no longer adequate’. (Chapter 3) Evidently the breakthrough boys have shown little evidence to use film grammar or interpret animation. By analysing the Simpson’s trailer pupils only overcome little their first comments from ‘funny’ to actually contribute to a critical conversation over the genre of an American dysfunctional family. However this particular group lacked basic communication and literacy skills to debate any of the Simpson’s family relationships, visual qualities or animation terminology. This questioning and answering exercise did not last very long and the boys struggled to stay focussed, and within five minutes general fidgeting and chatting occurred.

Figure 1.6 Drawing exercises were used to keep pupils on task, character design, changing shapes into something else, adding one line, two three, also, Flipbook, Facial expression, Movement. As diversion activity the pupils were given time to sketch out a character sheet, (figure 1.6) including a biography, likes, dislikes, friends, hobbies, etc. We hoped that this sketchbook activity would work better as pupils were less keen to engage in an open discussion about the Simpsons. Extraordinarily all boys immediately took on the task as they were eager to represent,
sketch out characters that are common in their environment. Characters clearly looked like chavs, emos, yobs, or skaters.*

Figure 1.8 Character development activity

**Biography of my character**

He is brought up in a rough estate, but his parents are really rich though. He goes out every night taking pills doing ??? and most of the time ends up fighting. But he loves it!

**NAME:** Tony

**AGE:** 16

**Do Hobbies:** getting buzzed up

**Drinking, fighting, doing drugs.

**Description:** black hair always in jeans.

**Favourite item:** any drugs
Name: JimiLee Oldridge
Hobbies: getting high
Job: Mc Donalds
Description: ginger, poor, smoker
Favourite items: ???
traky lighter

Hamish Mask, ginger, geek, smells, no pubes, Jehovah witness
We collected definitions about individual cultural subgroups from the interviews with the boys and additional commentary by researching YouTube.*

In figure 1.9 the pupil created a character that undoubtedly represents Emos. 'Emo’s don’t like to labelled, there are punky, complain how bad their life is, say their life is boring or horrible, emotional cry babies and they slit wrists.' Interestingly Emo’s identify with the Japanes manga series Naruto and Sasuko which refers to Sasuke as Emo Kid. (figure 1.13)

Looking at figure 1.10 and 1.12 and similar images collected it is clear that the pupils prefer a more cynical, maybe infantile approach. Osgerby (2004) describes this aesthetic sensibility as irony or bad taste 9 and brings to attention the ‘hyper-real’ media world where the borders between the real and the imaginary were blurred and indistinct. The boys obviously reflect upon influences and share a taste of ironic cartoon comedy, such as Beavis and Butthead. The two main characters are anti-social, destructive, sexist, with limited vocabulary and highly annoying. Although Best and Keller saw their Beavis and Butthead animations as a sophisticated satire on contemporary culture, we doubt that teenage boys can see it more than just as funny cartoon. To the boys however it does not appear as a media text of importance, (see example Simpsons) instead it will only mix in within their real life environment. Yobs or Scroats are describes by young people as ‘young offensive bastards, football hooligans, drunks, vandals, terrorising and making fun of people, is just a term for little bastards.’

Douglas Kellner also points out that the media provides a symbolic environment in which people live and strongly influence their behaviour (1995:151) With Beavis and Butthead media is not simply packaged as a clear message, instead they are riddled with ambiguities. However for teenagers, like the boys, the process of meaning making is very limited and restricted. Research has analysed in what ways young people have been engaged in popular media and importantly it has been underlined...
that young people enjoy the usage of their media. It is a tool to express their identity. However I hope to shear light on the problem here that this does not mean that young people automatically learn the meanings that are constructed around the media. So what do they learn?

Figure 1.8 represents a chav and other characters made by the pupils identified a group/style within their youth culture. Chavs are ‘boys who spend more money on cloths than girls, they where aweful trainers, common, they where funny clothes, lots of them in Essex, very disrespectful, waste of space, they bring labels down, hang around street corners, they all should get a job and they hate posh people.’ Other characters were explained to me as Skaters who ‘need to get clothes that fit’, Pikies who ‘beg for money, romanies, gypsies, scum, thieves or dirty thieving gipsy bastards, who are just scumbags.’

The practitioner used many questions to extend and reinforce listening as well as understanding; this clearly promotes and can develop pupils’ oral skills. Activities were used to bring out short responses and engage pupils in their current learning. Pupils admitted they enjoyed the learning taking place: ‘It was good … the fact that you did not keep writing stuff...ok, you actually wrote some stuff but you ask questions about it and showed us some films.. varied lots.’

Still the boys had very little experience in listening, which ought to become part of their learning too. Even here the practitioner had to think for the pupils at some point rather than being able to actively involving them, which lead to move on with the activities. However this can be extended and further explored with different young people at different levels. (Comparison with a group of Btec Media Studies student)
Figure 1.15
Example: Movements
Now act out the following movements while others in your class or group try to draw the positions you are in.
- Kicking a football (four positions).
- Walking (four positions).
- Picking up a cup and drinking from it (six positions).
- Hammering a nail (three positions).
- Putting on a hat (four positions).
- Being frightened by a ghost (four positions).
- A cowboy with a lasso trying to catch cattle (four positions).
- A dog scratching his ear (four positions).

In an additional activity we used the animated title sequence of *Catch me if you Can*. To focus on the sound only we covered up the screen. I prepared questions for the practitioner Karina to use with aim to identify its genre and intended audience to understand content, message and also style of animation. The following questions were asked to engage the boys:
- Do you think this is a cinema film or TV programme? Who do you think would watch this? Who is it for? What can you hear? What instruments? Can you tell what it is about? Why might it have been made this way? Does it have a message? If so, what is it? Does it promote a particular style of animation?

Overall pupils were less keen on an open discussion. For about five minutes we only engaged about four boys out of twenty. However through intense probing and varying the questions Karina achieved some response to identify, e.g. cut out stencil style, jazz music, similarity to the movie and tempo. Nevertheless the atmosphere seemed very full of boredom and the boys rather wanted to watch the film that talk about it. The practitioner had to move on to the next activity.

This demonstrates that there is a gap in young people’s education to reflect upon what they have seen. It supports Buckingham’s argument that young people need to be taught about the media and its meaning earlier on in education. This supports my hypothesis that if young people love their media they will also be motivated to learn about it. However it is not the media industry that is responsible to offer this education for young people to understand media text. It is up to schools to offer this additional understanding of meanings. This may stop criticising the media and seeing young people always as victim of exploitative cultural industries.
It seems without doubt to me that young people’s cultural experiences influences their volume and content of what and how they learn, or as one boy explained to me as follows:

“When you are young you don’t know about crossing the road and stuff then you are definitely not street-smart at all, and if you learn to look at both sides of the road to see if there are cars you get a bit more street-smart and when you learn about people taking drugs and smoking and the causes about that than you are street-smart about that and things like that.’ Year 9 pupil

Osgerby points out that young people’s engagement with the commercial media does offer some possibilities for liberation and progressive change – and I agree that the constriction is within the economic and political power. In recent BBC News articles the government revealed that truancy rates in England’s secondary schools rose by more than 10% last year. Unauthorised absences rose to 1.25% with 55,000 pupils missing lessons each day. (Despite £900m spent on anti-truancy initiatives, these figures show the highest truancy rates since 1994) The government is still targeting parents with court action and move the blame to a minority of ‘stubborn young people’ which for me does not bring young people back into schools. The Prime Minister, Tony Blair, wanted to give more power to police and local authorities in the government's campaign of "zero tolerance" approach to yob culture. However schools are in need of this power to be more flexible, creative and resourceful to stop boring their pupils. Anti social behaviour is mainly caused by boredom, and talking to the boys made me understand this.

Referring back to how pupils relate to what they see on television, cinema and the internet, pupils visual sense develops with their verbal sense. Recent studies show that seven out of 10 children have a television set in their bedrooms, while half have their own DVD player. Six out of 10 children own a games console, five out of 10 have a music system, while about a third of children have a computer and a similar number own an Ipod or MP3 digital music player. One in 10 has an internet broadband connection while 13% have access to Sky or digital television in their bedrooms.’

There should be more practical based research to debate pupil’s relationship with television, internet and game culture as highly influential media. If Buckingham suggests that we ought to narrow gaps between school and young people’s out-of school experiences, it is essential to understand what these experiences are. Surely in this case without doubt it begins with the knowledge (street-smart) the boys already possess. (Buckingham, p10/34) However how useful is this ‘street-smart’ knowledge towards pupil’s education and how are we meant to assess and evaluate this?
David Buckingham (2003) argues that young people today are “more diverse – and to some extent more autonomous – in their uses and interpretations of cultural goods.” Here he also implies that teachers and educators somehow confine the existence of contemporary youth culture. This means clearly that there is a high risk that education is capable to offer dissimilar perception, knowledge or understanding. Truly, looking at the boys, a fixed curriculum is no longer relevant and it suggests that teachers need to learn new skills. Talking to the boys confirms this statement:

Computer in schools: ‘They teach stuff you never use, like in IT, or Math.’ Can you describe a typical IT lesson? ‘I just have to walk in there and play games or use Excel the rest of the lesson. I just played games all lesson. With Excel we are doing another chart about plants, do percentage staff like this. I like to be taught to go on the internet to look for stuff, use the net is better than Excel...I like to cook up some stuff, like burning disks, like everyday things at work..computer loading disk a.s.o.’

We ought to make the curriculum relevant to pupils’ lives outside school for related learning to take place. The boys showed a natural demand to learn and were not against schooling in general. But to make teenagers more sensible and interested we must teach them about ‘their world’ they are confronted with on a daily basis. The gap between the boy’s world outside school and the curriculum emphasises this need for change. The day to day experiences of young people are very different to classroom settings. Young people’s world are dramatically transforming faster than schools can follow, especially over the past fifty years. If schools are still ‘old-fashioned’, young people, like the boys, will not engage with it.

Animation activities in a school environment (Day One)

Four weeks have passed since the cineliteracy day and the boys and teacher had four single lessons to prepare storyboards, finalise their ideas for their animated infomation to promote good behaviour around school. The day was structured into storyboarding, preparation, set and character design. When we were sitting in the staff room we noticed a display board introducing the breakthrough programme my pilot school is currently undertaking. Three coloured photocopied sheets stood out, depicting three words, visual, auditory and kinaesthetic, three ways pupils ought to learn best. The model can be referred to as the ‘VAK’ approach, because it focuses on visual, auditory and kinaesthetic learning style. (Dunn’s model) QCA states that ‘many young people especially boys are kinaesthetic learners who can relate to and learn from the moving world better than the written one.’ It is also estimated that up to 37% of population are kinaesthetic learners. NPDT refers to it as ‘boy-friendly’ techniques.

But it is also debated that teachers need to be careful to engage boys in appropriate activities to achieve productive or effective learning. “That's
not easy when you've got a computer suite full of 20-30 kids. It's difficult to make sure they're paying attention to the right task. Boys in particular are more likely to go shooting off to internet sites or take short cuts. Their tendency is not to plan or reflect, and to try and finish work quickly, and that's not going to be changed by using ICT."

How can animation activities create a ‘boy-friendly’ learning environment? Understanding teaching and learning methods are important to this question, particular the models of individual learning styles that are promoted throughout current school education. Will this help to motivate boys to learn about animation?

Prior to our arrival it was not made clear how far in the process the group were, which led to a bumpy start. The five groups (which still had to be configured during the first lesson) introduced their ideas to the class and were asked questions and given suggestions on improving their stories. The boys were fairly weak at giving suggestions to one another and were quite reluctant to change what they had proposed. It was clear that not much preparation was made. There was an obvious embarrassment about giving constructive responses in front of their peer groups. However, once we began the practical work of creating a presentation storyboard, they were responsive and got slightly engaged again. The standard of the artwork varied, but some boys had already begun taking care and pride in their work whilst others wanted it done as quickly as possible and gave very little concern to what they were doing.

Overall the day was taken more with a liberate attitude by the teacher and pupils noticed this instantly. The working environment was not very pleasant, the room uninspiring, bleak and unfriendly, considering it was a
media studies teaching room. Materials, such as pencils, paper, scissors, colouring pencils, cardboard, felt – tips or rulers were hard to get and required tough bargaining. Sadly the teacher had not made extra arrangements prior our arrival and activities for the day. Significantly the boys noticed this too. We had to work in a very different atmosphere than experienced in an art school setting. The expectations were lower and it immediately effected the entire day.

However we were pleased to notice that they knew how to structure the storyboard and were applying the correct camera and film language that they had learnt from the cineliteracy day four weeks ago. Those who had appeared uninterested in the morning session got more involved in the afternoon when we started making the props, backgrounds and cut-out characters. They were really enthused when their teacher gave them a practical demonstration of his own work under the camera and showed it live on-screen. The afternoon was a hive of activity- with the boys really engaged with the practical work and they loved seeing their animation on screen. Their behaviour in the afternoon became a little hyperactive and harder to control- although we do consider the first day extremely successful as they had achieved the tasks they were set.

Figure 1.18 First trial and error.
Animation activities in school environment (Day Two)

Day two was again very different. The morning began well with finishing off final preparations and first rostrum work. (Using lstopmotion) All the groups learnt the capture software swiftly and soon begun to realise how to animate with small increments. They took the time to try several attempts of the same scene to get it right and apply what they had learnt already. We experienced a unique moment when we watched all boys being engaged at the same time, focused and enthused with the sound of creative work filling the room. This lasted for two lessons. 1 hour and 45 minutes.

Most of the boys were computer literate but they expanded upon their Macintosh skills, working with lstop motion, capturing software and
Imovie editing software. Apart from computer work they also had to handle, focus the camera, and creatively frame the sets effectively. They gathered quickly the basic principle of animation such as double framing. Instantly the boys realised through the process of trial and error that small increments of movement were necessary for fluid movement. There was a general excitement throughout the classroom as everybody was all of sudden caught by the clear magic of animation. Instant results also created a ‘peak experience’ (Maslow’s, 1968)

However the boys were in the computer room and had very little personal workspace. After break time there was a rise in noise levels and groups were chatting to one another as opposed to concentrating on their separate projects. Once more the boys’ attitudes after lunch were harder to control and in fact became unbearable and unorganised. This was due to several factors:

- weak demonstration of editing software, as pupils only could watch over shoulders on to a small screen
- practitioner did not prepare a demonstration lesson
- practitioner was only familiar with Final Cut Pro and not Imovie
- lack of good classroom management

This caused a severe struggle and immediately the boys lost interest and became increasingly disgruntled and mischievous. Furthermore, there were technical problems in capturing and importing sound for their animations and only one group managed this due to their computer being compatible with the camera. There was a total technology meltdown, that caused total chaos.

They provided a very unorganised and weak presentation of their final pieces with lots of sarcastic comments. One group had distinctly worked harder than the others and this was recognised; there were also a few individuals who felt vexed that their group colleagues had dwindled and misbehaved. Figure 1.24

It is essential to understand that the breakthrough boys are underachieving, because they are capable academically but ‘out of control’ simply when bored. One boy explained it like this ‘I am
underachieving because I was not paying attention I was not behaving as well as I could, I am put off work. In math last year, the teachers does this time thing, 5, 10, 15, I got five lunchtime detentions in a week. I sit, and I get bored. I kept talking, shouting, can't keep my mouth shut, now I have a mentoring session. 'We asked the same boy (who hates drawing, because he thinks he just cannot draw) what he thought of the cineliteracy day: 'It was good, it was different, it was different like the flipbook and the things in our sketchbook were different than the things we are doing in art we did different activities and exercises, but in art we do one thing for two lessons or more it just goes on’

We clearly established that animation activities can motivate boys and here the understanding of teaching and learning methods are important, particular the models of individual learning styles that are promoted throughout current school education. The subject of learning styles is being hotly debated amongst teachers. However it also ought to invite to debate related issues such as behaviour policies, discipline and positive classroom management.

The cineliteracy day offered a variety of learning models; multisensory learning to target all different learners. Applying a variety of different styles certainly engaged all pupils at particular moments most of the day. The group worked in a very small environment, close together on a very hot and humid day in August. Despite these conditions evidently the boys learned:

a. visual (learn by seeing) observational drawing, watching animations, storyboards, character sheets, then questioning and answering
b. verbal/auditory (learn by hearing) listening to the title sequence of Catch me if you can, discussing what they hear, listening to instructions and practitioner
c. reading/writing (learn by processing text) taking notes, using sketchbook, script and storyboarding
d. kinesthetic or practical (learn by doing) making a thaumatrope, regular drawing exercise, pupils perform in front of the class

Most important seems that when learning styles were combined it engaged the majority of boys at all times. Because interestingly this also controlled behaviour issues because the boys less engaged at a certain particular task did not cause interruption. This created a very positive learning environment for all boys to experience each others way of engagement. When the animation activity changed again different boys found themselves engaged differently. This happened throughout the cineliteracy days and demonstrates a positive and effective impact animation can have. All activities included a variety of styles and were also applied in a fast moving interaction, to also avoid boredom. Keeping the boys on task worked extremely well, as all stayed in their seats, worked to their ability and enjoyed the day. One boy explained: 'I can not sit still for five minutes, I tap a lot because of boredom, tapping gives me
something to do. But when I watch a good film I have not seen, I can sit still. If you are paying attention, you don't tap.'

This case study has acknowledged multiple learning styles and discovered that they are at work when teaching animation in the classroom (John White questions if multiple intelligences are at work in the classroom at all and if adopting learning styles have a positive impact on pupils' achievement?) All boys showed a variety of learning styles, certainly more than one individual style only. They have expressed to prefer learning by practice, referring to the animation days as example. But they also told me that they enjoy reading, listening, music, maths, science, if it is NOT boring. Boredom was expressed by all pupils and therefore the cause for their misbehaviour. Here pupils admitted to rather miss school and 2/3 have been truant to avoid boring lessons.

Interviewing the boys to discover their dislikes and likes, gaining an understanding how they function or not in a classroom setting and finding that their interests and needs vary extremely. All twenty boys obviously reveal display all multiple intelligences; three boys loved Science and PE, but hate maths, two boys read five hours a day, four don't read at all, twelve boys love PE and Art, but hate maths and science, three prefer music to IT and so on. (Maths is the most hated subject, although they all like jigsaw, quizzes and thinking games, all boys listen to music, watch TV or use a computer more than four hours per day)

Overall it can be compared with existing statistics 20

- Approximately 30% of people are visual learners - images and pictures are their primary helpers.
- Approximately 30% are auditory learners - talking and listening their first choice for learning.
- Approximately 40% are physical learners - doing, hands-on, touching, real time involvement provide the best methods of their learning.

However when we worked with the boys in their school environment we only achieved productive work during the two morning lessons. Both afternoon sessions we had disruptive behaviour, low attention and NO listening capability at all. Both days were practical rostrum work, sound recording and editing, kinesthetic learning. During the last day we had to refer six boys because their behaviour was unacceptable. Unfortunately there was no place to refer them to. No support staff, no referral unit, nor place for them to cool down. Interestingly these were the boys who all prefer practical, hand-on learning and free moving around activities.

In summary this demonstrates that the boys have learnt more effectively and productively when we offered a multi sensory learning environment (cineliteracy day at art school). That is to include all areas of learning styles, visual, auditory and kinesthetic. However teaching to only one or two learning styles (as in day two and three) supports the criticism to find
multiple intelligences unacceptable and unworkable. The behaviour was stable during the whole day at the art school. The boys coped well with a small amount of written work, listening tasks and concentration/sitting still. Learning accelerated because we applied as many intelligences as possible.

Learning took place because:

a. The activity was clearly explained, visually and audibly, e.g. thaumatrope, sketchbook exercises, facial expression and drawing from observation, movements
b. The practitioner used popular animations, such as the Simpsons, Futurama, The Incredibles, The Corpse Bride to catch pupils attention, then introduced film language, animation techniques and industry
c. Animation offers a multi sensory learning environment

‘..The fact that you did not keep writing stuff you actually you wrote some stuff, ask questions about it showed us some films varied lots..’

Learning did not take place when:

a. Pupils returned from lunch and entered a liberated (Kinethetic ONLY) learning environment in school settings
b. When equipment did not perform, and troubleshooting became a severe dilemma, e.g. capturing sound, via camera and the computers did not recognise any cameras. (Very unstable computers, despite latest G5s)
c. Pupils had to wait and this caused anarchy and pupils decided to disrupt the lesson also engaged other pupils to follow their behaviour.
d. When pupils were ask to wait.
e. Practitioner was not well prepared to teach I-movie and the lesson was introduced very weak, by the ‘get-on-with it’ style.
f. When there were five pupils per computer in a very small room

‘Other people make you chuck things at teachers, they keep prodding you, they really wind you up and call you names, so I do it to be left alone. You can not stand up to them as they keep doing it.’

‘..When we were in year 7 we had the substitute teacher for an entire year, which means we ganged up on her the entire year, made her cry. We all ganged up, it started with the bad kids being mean, than even the good kids started standing up to her not doing as they were told. Then we came to High school with the wrong attitude.’

Boys are not always internally motivated, they sometimes need situated motivation, which I found in conditions that animation activities provides. The following comments were made by four boys during the interviews when talking about their attitude to school: ‘I don’t really like any lesson,
the teachers just make all the lessons boring… You just sit there and do the same thing all lesson. Most boring lesson I have is IT… I learn when I like doing something, when the teacher is fun, or jokes… If lessons were more fun I would go to school and I miss school because I don’t like it.’

However asking the same boys again about the animation activities they commented: ‘It was good as you could draw and make things otherwise you think ahhh it is going to be this day again. I enjoyed just being out of school, it is fun, when you get out of school… Going out to the Art College it is a good change you don’t know what you will be doing. It is like one subject all day, you don’t have to change all day, you have time to do one thing, watch movies and make things…”

Inviting the boys to experience the art school environment seemed to have a strong impact. As well as we offered central and crucial aspects to engage the boys in the activity of learning. (Piaget, 199?) Importantly animation nurtured two kinds of motivation here.

a. **Intrinsic Motivation** occurred when the boys were internally motivated to do something because they simply enjoyed the hand-on animation activities. Furthermore I invited them to the Art School and this gave them a consciousness of importance too. This linked their learning to future opportunities and they felt that what they are learning is morally significant.

b. **Extrinsic Motivation** came also into play when the boys were told that their work contributes towards research and that their animation goes onto the school’s website and schooltoons website.

We clearly made use of the boy’s interest and attention by showing popular animation they all knew and liked. (Attentiveness) Inviting the group to the art school and being taught by a professional animator allowed for curiosity in the boys. (Receptiveness) This fostered the group ethos towards learning. Finally we matched boys learning to their current state of knowledge and understanding. The cineliteracy day set up a learning experience that can be referred to as active learning (p.39, effective teaching) It fostered good understanding and skills, but moreover a beneficial effect on the boy’s motivation and more positive attitude towards learning. (Over break time I had three boys that asked me a variety of questions, e.g. how to get into the arts school, how long they will have to study to become an animator, if they were able to enter the art schools, etc.) In 1999 Ofsted claimed that schools lack discovery learning and that there is a big need for this (p.42) One boy explained it like this: ‘It was a good day because we made lots of things, more practical work, actually I worked more than in school. She (Karina) explained all very quickly and let us get on with it, BUT always helped us out and treated us more what we are, like teenagers.’

Most of the pupils were able to follow and listened to the short discussion on the ingredients of an animation; they tried to analyse and evaluate
what is needed to make an animated film. (Idea, script, story, character development, character sheets, storyboarding, key framing) They were also able to take notes with general interest and without protest. (figure 1.14) The more able learners showed a better capacity and a mature usage of sketchbooks by taking notes on what has been said without encouragement. Research says that nothing can be done until teachers raise their expectations of boys, and so we did.

Significantly the boys understood the relevance and application of this new knowledge about animation on offer. Looking at a variety of commercial and cinematic animations helped the boys to understand what they can use animation techniques for. (Selected animated clips were used during the day from Futurism, A Corpse Bride, Catch me if you can, The Adventures of Prince Ached, Tom Club, The Incredible, etc.) They made a connection between learning and the purpose of this learning. It all made sense to them. And notably being taught by a young professional animator (Karina) within the art school setting, impressed the boys. It brought reality, adventure and modernity with it.

Pupils learnt about the persistence of vision and why they see pictures move. 2D or 3D can be used to create a full story or a scene from a larger piece. They learned how to make a thaumatrope, a flipbook and a cut-out character. This slowly introduced them into the labour and the hard work behind animation. Young people have very little understanding about the process of animation, and mostly think in film terms. Pupils learned that there is an industry, there is a creative place, in an art school setting where students study animation and other visual arts. Pupils asked several times during the day about art school life and studies, how long it is, what they do and how good you have to be to study. Pupils understood that animation can be a job opportunity and involves different job descriptions, such as storyboard artists, character designer, director and etc.

On the cineliteracy day pupils learnt about future career opportunities by connecting the day with a visit to the art school. This helped them to apply personal and social skills including positive collaboration and a maturity in their relationships with others; being outside school. Animation became more than simply being watched on TV:

- a. job opportunities, including the variety of career choices, such as producer, storyboard artist, animator, model maker, editor, voice artist
- b. creative process and understanding of labour, how long it takes to make an animated blockbuster and also how many people are involved in the making
- c. skills involved, such as drawing, script writing, communicating through presentation and talking skills implying new literacy
- d. the creative possibility of ICT
- e. girls can make animations too (boys responded positively well to the recent graduated animator Karina Williams, they also found it easy to express their admiration of her work)
Animation activities undoubtedly motivate boys because they feel challenged and NOT bored. Animation is cool in their mind and therefore acceptable to be engaged with. The boys evidently explored, experimented and argued/debated their creative brief in a professional environment which highlighted their understanding of relevance "What can I use this for?" 21 (Martin, 2002, p. 152; West, 2002, p. 168).

Shipman and Hicks (2002) argues that teachers and boys have different ideas of motivation and therefore teachers think boys are motivated when they are taking notes. But West researched that boys felt this was just teachers keeping them heads-down in useless busy work. (West, 2002, p. 112) Different research also talks about a need for some risk, challenge, even a whiff of danger as part of how boys want to learn; hence the attraction of the outdoors. If it's too safe, it becomes boring for many boys. And bored boys often cause trouble as three boys admitted in similar statements about truancy and why it is the best way to avoid trouble. 'I just go home and stay home. Sometimes I get pissed off and just go home after lunch so I don't get into more trouble. It makes me feel more relaxed if I leave school'

Figure 1.24
The variable animation activities maximise opportunities for boys’ success and offered a positive impact to each individual at one point.
during the project. Learning from the practitioner changed their experience to the ‘teacher talk’ and daily routine. We asked the boys to explain their different experience out of school, and simply all admitted that Karina, and us were more helpful. Further comments were made that teachers are always stressed, kind of sit there and get on with their work, help people who are not so good but ignore people who are good. ‘At art school you helped us all equally. What often happens in school is that teachers just tell you what the work is and than only help you if you put your hand up, they expect you to be able to do it. At the art school you always came around and asked what are you doing? what is this about? and helped develop our problems. This does not happens very often because teacher only helps if you ask for help if you put your hands up. At the art school you asked us if we did think it is a good idea or if we could try this or that. When we were with you asked if we could you do it better. A teacher will say Do it better, make it better, neater. Or they let you copy out of a page out of a text book.’

It was not like school and as a result the boys were motivated when provided with as much variety as possible through active, practical and diverse learning. Furthermore we engaged them in creative thinking, decision making and evaluation. We expectantly let them think for themselves to make their creative decisions and encouraged a ‘trial and error’ approach. (figure 1.18/1.20) The boys could see instantly what can work in animation by trying out little animation sequences directly under the camera. This invited the boys to make extra positive mental effort towards that learning task and herby made them critical to be able to evaluate the quality of their own work.

Animation can offer schools an easy start to follow Buckingham’s model to make pupils more critical engaged in curriculum education without changing the entire existing school curriculum. However working closely in a school offers an insight on how many obstacles teachers have to face to a) learn new skills or b) to apply the new skills in the classroom. Talking to the teacher reflects the huge problem of integrating new media, such as film, digital photography and animation into the curriculum. Despite all the positive learning outcomes through animation it is still essential to be aware of how to plug the boys work into their existing curriculum. This project shows an example of how to make animation a school focus e.g. it can be used in assembly, through schools’ websites to have a much wider application. ‘If it is not directly linked to the curriculum, you must find a way to justify it, e.g. that it improves their teamwork skills, skills in problem solving... or it simply has to fit within the curriculum’

Animation as part of young people’s multimedia lifestyle offers an exciting way to narrow gaps between school and young people’s out-of school experiences. Animation activities demand a higher expectation from boys but similarity engages them because of personal interest, social identities, individual likes and dislikes. Maslow (1987) identifies this as cognitive needs, based on the impulse to satisfy curiosity, to know, to
explain and to understand. Participant boys admitted openly that they enjoyed working within the creative industry (us), one other reason being because we asked, listened and cared. This case study hopefully will draw attention to think more clearly about boy’s motivation and needs. Motivation in boys has several effects on how they learn and their behaviour towards learning. Animation activities can direct behaviour toward particular goals, lead to increased effort and energy, increase determination in activities, determine what consequences are reinforcing, and lead to improved performance. (Ormrod, 2003)

Finally animation also creates an ego-enhancing involvement and achievement (peak experiences, Maslow 1987) in school learning. It can be suggested further to investigate what part animation and motivation can play in boys’ achievement and how this should be assessed.

Conclusively we can raise further discussion for teachers not to fear underachieving boys. It invites to re-think alternative approaches and to have fun in learning with them. By recommending animation activities to schools teachers can imply a fun and positive way to engage boys and improve their motivation, behaviour and social skills.

There are a number of issues to be raised on the effectiveness of animation in secondary schools. There are also key thinks this case study can not reveal, e.g. whether animation approaches learning better than other new technology such as film, photography, game or web design. It can not debate whether girls would experience animation activities equally. But this research can offer a suggestion on political and technical issues that stops teachers mostly to increase the use of new media.

Clearly the way pupils and teachers make use of new technology is what makes the difference. Although in this case the school has all the technology but it does not make all the difference if it is not used efficiently. The teacher explains it as such: ‘We have thirty machines with Pinnacle (editing software) it has never been used as the teacher never had the time off school to learn.’ He explained to us that the teachers have not been trained about new media technology because it has less priority, nevertheless the school has a creative arts and media status. But he believes that training is vital and teachers must recognise what is going on in their classroom. This demonstrates that teachers can learn to work alongside pupils and they can discover how to think more creatively when approaching familiar tasks. The teacher raised another important issue that colleagues may lack belief in their own creativity and ability to inspire creativity in others. "Teachers need to feel that they can take chances and be more creative in the classroom."

Increase practice is the key to integrate technology into the classroom, but practicality is a further concern as new technology comes with series
of problems. This teacher suggested that schools ought to find a way that does not put off teachers doing media work, because of too many problems. ‘I am lucky I have a technician, who gets me the cameras when I need them or who uploads the footage for me for the next lesson as I have got not the time to do this.’

Extraordinarily the same technician was not allowed to edit the boy’s final animated clips on the department’s expensive G5 equipment as it was not part of his job description. Controversially the teacher emphasises that teachers need to be given the confidence to step outside their traditional classroom practices. ‘Many teachers are used to having their class sit down and if a child stood up they think they are doing something wrong.’ However teachers are often restrained to step outside their job roles because of departmental policies, job description and curriculum requirements.

The teacher also raises the issue of secondary school’s timetable and how impossible it is for teachers to overcome this single lesson problem apart from one off art’s weeks, extra curricular activities or after school club. Working with secondary schools always highlights this particular issue of single lessons, taking students out of lessons, out of schools, exam timetable, a.s.o. However as this teacher explains to me it is down to the senior management and ‘If you know the reasons why you want to do it, you must give your project certain skills… this means make it part of the curriculum…offer the students experiences… you justify why you are doing it but it can not be just a lot of fun. The next problem is finding the time, negotiating, you need somebody in the senior management who recognises what you are doing’

Animation can stimulate and boost motivation, evidently from the feedback that we received from the boys during the project. They clearly enjoyed specifically the day at NSAD. However larger studies are needed to analyse pupils attainment and achievement over a longer period of time. Here levels of achievement can be assessed primarily by their performance and standard of work but also through their voices; their opinions. Many of the boys told us that they felt that they had learnt loads and actively voiced specific rules of animation. They also mentioned that they viewed animations differently now and thought about the camera angles when watching a film.

This case study clearly indicates that animation can make a difference to boy’s learning. Working with these boys has certainly proved that is it essential to keep young minds interested. (Buckingham) However the disadvantage of working with the breakthrough boys was the amount of time trying to discipline as opposed to educating them on a specialist subject. The liberal attitude of the teacher certainly hindered a smooth running of the days at school. There was a distinct difference in their behaviour between the days in residence (at the school) and as a day out (at NSAD). The boys were better behaved out of school and gave a lot more attention and respect to the teaching and their own learning.
Motivation is a major ingredient if we wish to raise achievement in boys. But motivation is also an essential ingredient in teachers to teach creatively.

Personally we felt very saddened talking to the boys realising how much they actually hate being in school, how bored they are, how little interest they have in any of their daily lessons and how little they are challenged.

‘I don’t really like any lessons, I don’t mind music, but not with keyboards but I like to bring in my own instrument, my guitar. We play Frere Jacque all lesson long on the keyboard. What is the point of paying an instrument if you don’t play it. I would like to play my guitar in lesson, what is the point in playing Frere Jacque if you are really good musician… Always classical in music, always, sometimes 400 year old…’

‘I would not go to school if I haven’t got to. I only go to see my mates. I would go to PE, or a better equipped school, …there is that school where they have all a laptop..’

There is evidence through this case study that pupils can be re-engaged in education through animation activities. Evaluating their learning, motivation and behaviour suggests that many boys respond well to the environment of a college and that in this case can spread to their school work.
Conclusion:

The project has expanded into four phases: research, production, evaluation and dissemination. Additionally we have successfully secured funding to work in partnership with Norwich School of Art and Design and Nesta to produce Schooltoons as an animation resource for secondary schools. The initial groundwork was funded by HEFC2, through a one year animation research post at Norwich School of Art and Design (2004-05). This has now developed further thanks to the Creative Partnerships research grant, ensuring that Nesta’s contribution will build on top of a firm foundation. At the CP evaluation stage, drafts of teaching resources, including schemes of work, lesson plans and DVD are circulated to project mentors and teachers for critical review and feedback. Participant schools test, exchange and try classroom activities again. The most successful models will then be selected for inclusion in the resource pack, along with edited video clips. Nesta will carry the project to publication stage and open up the field of animation to a much broader range of school students than in the past. The pack will be forwarded to BFI Publishing and/or an alternative publishing partner for dissemination to schools.

During the CP research we have developed cineliteracy days and animation activities with Norfolk schools involving English, Music, Media and Art departments and students of all abilities. So far students have worked creatively in the media of drawn and 2D/3D animation. We are monitored and evaluated the full range of learning outcomes. Activities were documented on video, and material is finalised and edited to fit within the teaching pack.

The attitude of teaching and learning was generally good and most of the full days very positive. During the days we observed how animation at this level can be challenging and fun, and yet also teach literacy skills, and knowledge necessary for understanding film language. Teaching was highly creative, effective and spontaneous in helping pupils to stay on task. Activities were planned well with clear structure and detailed instructions, although in few occasions activities took less time than planned with pupils finishing task faster than expected.

Pupils learnt about different type of animation techniques, 2D, 3D and CGI and how looking at different animations can inform the development of their personal ideas. (cineliteracy days) They learnt to identify and compare techniques in a range of different animations. Pupils identified with the full creative process of animation (idea, script, story, character development, character sheets, storyboarding, key framing, rostrum work, sound recording, editing and final presentation to an audience)
In animation as in dv successful work will demonstrate:

- The understanding of the language of the moving image, in storyboarding, character development and planning.
- Imaginative visual expressions through characters, set designs, camera angles, such as extreme close up, close up, medium, wide angle shots, including extra emphasis on animated movements.
- Considered use of lights as well as close attention to sound recording, speech, sound effects, music and voice over.
- It is important to demonstrate through animation work that there is a very close connection between creativity and the literacy of the moving image.

Within this process pupils specifically learnt:

a. To work under pressure, to listen to advice, to take risks, to be professional, and to collaborate with others, teamwork, competitive work (insight and out sight school). What it means to work directly in the creative industries, under a realistic brief within an art school setting. Pupils were able to discuss ideas to develop into an animated sequence

b. To relate and make connections to what they seen on TV, Cinema and Internet with understanding of future career opportunities/current job roles within the media industry (art school visit)

c. To apply personal and social skills including positive collaboration and a maturity in their relationships with others, teamwork and communication skills (insight and out sight school)

d. ICT transformed into an innovative and exciting learning tool. Pupils learnt the creative use of computer technology, by using digital camera, I stop motion, I movie editing software

e. Key skills such as literacy, new literacy, animation/cineliteracy

f. Observation drawings: to collect and develop ideas from direct observations. Sketchbook work and an understanding that drawing skills are important to animation

g. To re-evaluate school, find school different and actually enjoy learning. Therefore will improves attendance and behaviour and for some pupils this signalled to think again about education

Teachers also learned through opportunities to work alongside pupils and had discovered how to think more creatively when approaching familiar tasks. These included teachers who had previously lacked belief in their own creativity and ability to inspire creativity in others. However working closely in a school offers an insight on how many obstacles teachers
have to face to a) learn new skills or b) to apply the new skills in the classroom. Talking to the teacher reflects the huge problem of integrating new media, such as film, digital photography and animation into the curriculum. Despite all positive learning outcomes through animation it is still essential to be aware over how to plug the pupils work into their existing curriculum. The case studies show examples how to make animation a school focus e.g. it can be used in assembly, through school’s website it has a much wider application. ‘If it is not directly linked to the curriculum you have to be something to justify that it improves their teamwork skills, skills in problem solving. Pupils get a good achievement of what they did this way. It has to fit within the curriculum’ The same secondary school teacher made also following comment:

"Teachers need to feel that they can take chances and be more creative in the classroom."

Our research has identified the extremely valuable part animation can play, in enhancing literacy, numeracy skills, classroom learning and visual creativity amongst pupils of all ages. It also highlights the types of practical and theoretical support teachers urgently need to teach animation effectively. Animation work is a proven way to build self confidence in the learner’s creative abilities. The hands on, personal engagement which the process demands, allows each individual to take immediate ownership of his/her work. Pupils truly care about the outcomes, and strive to reach ever more demanding goals. The multifaced nature of the process provides learners with many different points of engagement and an open ended path into discovery.

The benefits of this level of engagement can last a lifetime, as an enthused, creative attitude of mind is never forgotten.

Key findings are:

- Pupils are extremely enthusiastic and a visible change towards a positive attitude to learning is strongly noticeable. It changes behavior!
- Pupils identify with modern technology/modern themes and therefore can claim an important and personal ownership over their work
- Within a short time pupils learn and adopt new terminology which they apply then effortless in speech and presentation skills
- Confidence and self esteem in pupils improves through teamwork, achievement and presenting successful products at the end
- Pupils clearly learn to appreciate a new working environment and the experience offered.
- Pupils develop an understanding how demanding and challenging working within the creative industry can be. (Awareness to understand what they see on TV)
- Teachers become more confident through continuous support and involvement
• Teachers enjoy a positive and different working environment in which they also can be creative themselves
• The IT skills learned through animation work will often enhance learning in a range of subject areas, such as Art, Music, Media and Drama. It therefore stands to fulfill a much broader educational remit by encouraging creative thinking in the classroom right across the curriculum

The project has established a very popular demand across schools in Norfolk and more and more teachers are eager to participate.

In future it is essential to focus on technical issues and this is severely important to develop further. It is essential to make clear how to go around technical problems so teachers can grow confident in using new technology. Therefore clear advice, guidelines and more in-depths training is needed, so teachers can have the chance to think more creatively instead of troubleshooting equipment or being frustrated by it. Therefore we suggest more training for teachers and schools to overcome these problems, such as:

• What equipment e.g. cameras, PCs or Mac, tripods, lights, microphones, software, resources and other accessories to purchase. We have noticed that many schools simply buy the wrong equipment or are advised inappropriately, which leads to the purchase of equipment that is not set out to perform DV or animation work.
• Applying technology within a classroom setting effectively and productively, managing group work
• Differentiated knowledge between different editing software and students needs, e.g. Pinnacle or Premier elements for primary, middle school, KS3 sector and Premier Pro or Final Cut Pro for KS4 and A-level students.
• Analysing complex problems with network systems in schools that is finding solutions to make digital media work functional within network setup. It is important to prove to schools that network is a major problem and offer suggestions for solutions. This is to include alternative ways to store large amount of data, e.g. external harddrives.

We recommend that pupils need more than ‘one-off’ opportunities and we looked into the manifestation of animation activities in the classroom. Teachers need resources, training and time to apply teaching about animation. Teachers do not need necessarily an artist in residence, as user friendly resources and the right advice on equipment will support them to get started with animation in the classroom.
Schooltoons festival:
Norfolk school children awarded for animation excellence

Children, parents and teachers from schools across Norfolk attended a unique animation awards ceremony on Thursday 22nd March 2007, at which potential young artists from first, middle and secondary schools across the county were commended and rewarded for creative excellence. The evening, part of a wider two-day festival, was organised by the 'Schooltoons' initiative, which aims to promote the teaching of animation within the school curriculum. The schooltoons project has been developed through a collaboration between Norwich School of Art Design (NSAD), Media Projects East (MPE), Creative Partnerships and Nesta with extra support for the first schooltoons festival for young people by the Film and Digital Media Exchange (FDMX).

The prize is a two-day residency and the chance to have their winning idea turned into an actual animation. The Lord Mayor of Norwich, Councillor Felicity Hartley congratulates the happy winners.

The animation and storyboarding competition were devised to provide pupils, teachers and parents with the opportunity to engage with animated films made in schools. Since January a huge number of high quality entries, animations and storyboards – storyboard entries based upon the theme of 'friendship' - have been submitted. The judging panel, including Hannah Giffard from Red Fox Productions, Trish Sheil from Cambridge Film Consortium and Freelance Illustrator John Williams named Loddon Infant and Nursery School and Reepham High School as the storyboard competition’s overall winner.
<table>
<thead>
<tr>
<th>Winner: Avenue First School</th>
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<td><em>The three little pigs</em> won best idea, story and meaning. (3rd in storyboard competition)</td>
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<table>
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<tr>
<th>Winner: Loddon First School</th>
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<tr>
<td>Best storyboard</td>
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| The judges, Hannah Giffard and John Williams enjoy their challenging task to find a winning storyboard entry. |
| **Winner:** Dawson First School  
*Bubbletown* won best creative and animated techniques | **Magdalen Gates First School**  
2nd best storyboard |
| --- | --- |
| **Antingham and South Repps**  
*Looking Back* was awarded for runner up | **The Lord Mayor of Norwich, Councillor Felicity Hartley** |
Winner: Reepham High School
Best storyboard for secondary schools

Winner: Sprowston High School
My dream last night won best idea, story and meaning

Winner: Broadland High School
Going Green won best creative and animated techniques

James Page
Commendation

North Walsham High School
Commendation

Adam Skinner
Commendation
As part of the Schooltoons two-day festival, a full day’s workshop for teachers not yet actively involved with the project also took place. Delegates were given insights into how 2D and 3D animation can involve a whole class, engage pupils and enhance learning, literacy and creativity in a range of subject areas.

The final focus of the schooltoons project is to develop a comprehensive animation teaching resource, which supports the integration of animation work into the Art and Design, ICT, English and Media curricula for pupils at key stage levels 3 and 4. Currently a number of schools across the region are practically engaged with the project, carrying out classroom testing and evaluation of current Schooltoons material, the most effective of which will be selected for final publication in July 2008. The www.schooltoons.com website contains resources to support animation work in the classroom at KS 2-4. You will find case studies, lesson plans, videos, useful links for further study, equipment shopping lists and more.
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