

Product success criteria

Product Success Criteria	Details
<u>Function:</u> The story is clear and understandable to all by the end of the film.	It is important that my animation has a story. I want to be sure that I can create an animation that is meaningful and has a purpose. I will measure this through a short survey that I will give to a test group of viewers.
<u>Aesthetics:</u> All of the drawings are of high visual quality, complete with shading and finer details	I want to make sure that the drawings are my best work, and that I include details (such as shading) that makes them look realistic. I will ask my art teacher to assess my drawings prior to animation, based on my criteria.
<u>Animation:</u> I will create 2 minutes of animation	After my initial research, I was able to set realistic expectations for what I could create in my first attempt and within the recommended hours for the Personal Project. It seems that within my time frame, and with all of the work I have to do, 2 minutes will be challenging but achievable.
Movement in the animation will be fluid and realistic	I want to make sure that my animation is more than stop-motion, so that I can prove to myself that I can move to the next level. I want my work to look polished, even though I am a beginner. I will measure this through a short survey that I will give to a test group of viewers.
All of the animation frames must be coloured and complete.	My initial research told me that colouring backgrounds and frames would take me considerable time, but would be essential to achieve a finished look in my animation (with no white spaces or missing parts). I decided early on that I wanted to make sure I achieved as professional a look as I could, so I included this as one indication (criteria) for the success of my product.

Evaluation of product

Areas of strength (Glow)	Product success criteria	Areas for development (Grow)
All of the responses from my survey said that they had understood the story. I was pleased that the storyboarding process had contributed effectively to this criterion.	<u>Function:</u> The story is clear and understandable to all by the end of the film.	
	<u>Aesthetics:</u> All of the drawings are of high visual quality, complete with shading and finer details	My art teacher observed (and I already knew) that there were sometimes inconsistencies in the drawings between frames (for example in the details of the man's face in the two close-up scenes). I need to focus more on details and making sure I am consistent.

My final animation was 2 minutes and 20 seconds long, and I felt that the pacing was good. I was able to match my story to the mood and tone of the music.	Animation: I will create 2 minutes of animation	
	Movement in the animation will be fluid and realistic	Although I am an amateur, I had high expectations for myself. The movement is generally good, but there are some areas it could have been smoother. I might go back and fix them after the final project. I did not have time to make them exactly as I would have wanted them. Particularly the movement of the spaceship between the flight frames - it felt jumpy and stilted.
I was very pleased that I had no issues with colouring or finishing the frames. All of my backgrounds were complete, even the nebula. I was especially pleased with the space walk scene and the costumes.	All of the frames must be coloured and complete.	

Planning timeline

Dates	Task	To do	Relevant Success Criteria	Progress notes
October 28th	Animation lessons CGI Animation Beginner's Lesson - N Karpenko	- prepare research questions in advance of lesson - record session to review	Animation	DONE
November	Create story outline	- consider plot and characters - must be simple in terms of story and setting	Function	Deadline 20/11 - DONE
November	Initial paper drawings	- 2 characters: man and pet - costumes - space craft - internal and external	Aesthetics	Deadline 30/11 - DONE
1st - 15th December	Script and Storyboard	- choose music and sync story/events - 8 scenes - clear storyline	Function/Aesthetics	DONE
16th - 31st December	Design backgrounds	- space backgrounds - nebula - planets	Aesthetics	Deadline - 31/12 Complete all backgrounds - DONE
1st - 6th January	Start animations - drawing and movement	- drawings into the software - movement within scenes - 2,3,4,7	Animation	Deadline - 6/1 Complete all backgrounds - moved to 12/1 - DONE
7th/8th January	Working with the software	Time to 'play' with the software, to develop confidence and understanding	Animation	Added on 3rd January, following dates adjusted
10th - 15th January	Animations - in-between frames	- review storyboard	Animation	DONE
15th - 20th January	Animations - colouring frames	- review initial drawings for colours	Animation	DONE
20th - 25th January	Editing - transitions and any final tidy ups	- add background music	Animation	DONE
26th January	Final Product due to Supervisor	- share survey with audience		DONE

Extracts from Research Plan

Research Question(s): - What must one need to know in order to create an animated piece about astronomy?	
Complementary Questions: - Animation: - What are the most common types of animation? - How does each differ from the other? - How does editing impact the narrative? - How to create and develop an original character? - What is the production process like? - Storyboarding - Animating - Editing - What is FPS? - How to maintain a consistent art style - How does traditional art differ from digital art when it comes to animation (pre-production included) - Astronomy: - What is the universe made up of? - What is dark matter? - What is dark energy? - What is known about our solar system? - What is known about galaxies and solar systems beyond ours? - How does our compare to others? - What are black holes? - What are nebulas? - What are supernovas? - What are the different types of stars and constellations? - What type of theories are currently being researched/debated? - Multiverse theory - White hole theory - Planet X theory - What are some big current or future NASA projects? - What are the living conditions like when on a mission?	
Source #5: https://washiblog.wordpress.com/2011/01/18/anime-production-detailed-guide-to-how-anime-is-made-and-the-talent-behind-it/	A detailed description and step by step guide to the Production of anime, which is traditional frame by frame Japanese animation. It covers pre-production, animation process and post-production/editing.
Source #8: http://www.creativebloq.com/character-design/tips-513264	An amateur post on character designs, a collection of tips on how to create a character with some type of backstory that triggers a certain impression from the viewer, depending on what the creator wants to communicate.
Source #18: https://solarsystem.nasa.gov/planets/solarsystem/indepth	An in-depth NASA article/report on our solar system and what it is made up. It covers the various distances between points in the system, the formation and growth, the structure and the exploration of it in detail.
Source #24: Potential primary source (t.b.c) - several lessons/masterclasses on CGI animation at a videogame and software development studio	Due to connections to people at a videogame and software development studio in Kiev, I can organize lessons there for myself with some of the people who work with computer animation, so that they can teach me about the basics of it and I can learn through first hand experience rather than just reading about it online. As well as that, animation software for computers costs large amounts of money (usually well over \$500), so purchasing the software wouldn't be a wise decision for 2 months worth of usage.

	<u>CARRDS Evaluation of Sources</u> Source: Karpenko, N. (2017). <i>CGI Animation Beginner's Lesson</i>. [Personalized lesson to student researcher] 28 October 2017
CREDIBILITY:	This was a direct, in-person lesson with a professional computer animator, Nikolay Karpenko. He has been in the field of art, graphic design and animation for over 20 years, and over 10 in computer animation specifically. He has given me his contact details for any further questions I might have, and is willing to organize a second or even third lesson if I need more practice and experience. Since animation is not an exact science or math, there are not a lot of wrong and rights, but rather styles where the wrong and rights vary. In CGI, there is a certain process and style many studios stick to, and that is what I got to experience and try out. I can trust my teacher as he has had years worth of experience in one of the most successful computer animation studios of the country.
ACCURACY:	I have done brief research on CGI before the lesson, so that I would not be completely clueless and we would have something to start from rather than starting from scratch. I did research on the process of an average computer animation process, and the layout and animating process. From what I have done with him, the concept seems to be almost identical to what I researched, and the process was rather similar with certain differences due to the large market and variety of animation software.
RELIABILITY:	During the lesson, the only form of bias present was the bias towards his and his studio's animating style and technique, however he did mention that there is an endless list of possibilities to do certain things he was showing me, and that if I continued practicing I would experience these styles myself, or just see them around me in things like movies or video games. Therefore, it is clear that he was not forceful and pressuring with his bias, and can be trusted - he clearly stated that his way is not necessarily the only correct way, but rather an approach.
RELEVANCE:	This is an in-depth primary source that has not only expanded my knowledge of the topic but also the experience I have in the field, preparing me for my final product rather well. With something like the arts, it is crucial to have first hand experience with what you're researching if you are hoping to apply it to real life somehow, and with CGI it was a great opportunity to try out, as CGI softwares are usually not just expensive (hundreds to thousands of dollars) but also difficult to figure out as an amateur with no guidance. This lesson has given me first hand experience as well as taught me more about the process - and it was easier to understand and process the given information as it was an interactive lesson.
DATE:	This information was not created the day of the lesson, but rather collected and then developed, evaluated, reflected upon, and adjusted to be as useful as it can be. The teacher has been gaining the experience he shared with me for years, and he got it all by working on animated pieces on his own, and learnt from his own mistakes and improved. That is the best sort of information I can get, as with animation, experience is crucial, and my teacher had lots of it. Therefore the stretched out data collection period of time is ideal for my topic and project.
SOURCES:	He did not cite any sources as this experience was gained directly, and the lesson was purely verbal (besides the parts where we worked on the software).

Gathering information

Animation

The following is an explanation of the modern animating process of anime, as it is the most common example of traditional animation in the 21st century (mostly due to the fact that most other movies and shows have moved onto 2D or 3D computer animation rather than traditional), and it has a rather large group of fans due to the variety of genres within the medium. As for the animating process specifically, it is split into specific sections which are managed by different groups of crew members. The first step after the completion of the storyboard and all final meetings, is the production of key frames. That is usually done by the key animator(s) (who are usually most important and respected, as their artistic style that they include in the key frames is what the final shot will look like, as the other animators will have to recreate and continue what they started), and it is a collection of a small amount of frames drawn for each shot, usually varying between 2-5 shots depending on the amount of action, i.e. simple facial movements vs a full body movement (Richmond, 2009).

Once the key frames are done, they are passed down to the in-between animators, but not before they are checked by the animation directors. Animation directors check for style consistency and double check that the style chosen by the key animators are appropriate. Then they are passed down to the in-between animators. Their position is rather self-explanatory. These animators are in charge of filling in the gaps left by the key animator, and make a smoothly running animation in the end. They use the key frames given as guides for what they produce, and strictly follow the design and style of the key frames to maintain consistency. Once all the frames have been drawn out and are neat and ready for work, they are scanned and transferred to computers for further work, specifically inking (tracing/lineart), and coloring. A group of animators, using digital art tablets and a digital art software (depends on studio) will then proceed to trace each scan of each individual frame whilst still maintaining a consistent style, essentially creating everything exactly as it is on paper. Once that is done and they have a traced and transparent lineart of the frames, the coloring begins. The coloring is done by a group of animators who have an assigned color palette for each scene (i.e. nighttime palette, sunset palette, and so on), and they simply color in the corresponding areas of the frame to the assigned colors. The colors they apply are the base colors, and they are simple flat colors. Once all the frames have been fully completed, they are passed onto the shading department, in which a group of animators simply add the necessary colors to the scene such as shading, highlights and so on. Once all coloring is complete, the frames are then passed down to the special effects department. No CGI is involved (with some exceptions, depending on the anime), but there are still special effects in anime. In many action pieces, special effects such as fire or explosions are required, and that is what the special effects department is responsible for. They add all necessary sparkles, glows, shimmers and explosions to the frames. As well as add special effects, these animators also wrap up the animation part of the production. However while the frames are being worked on, a separate group of artists develop all the necessary backgrounds with a similar method. If this process does not seem extremely difficult as is, then it is necessary to say that the average number of frames per a 20-25 minute episode is around 15,000. Again, this depends on the amount of action in the piece (Washi, n.d.).

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