

Product Success Criteria

When considering the success criteria for my animated film, I started by reviewing the purpose of my product. I wanted to show that I could animate my drawings. I then had to make some decisions about the parameters for this. To help me, I did some initial research on animations. When researching, I would see what professional animators are capable of and set myself realistic standards based on that, ensuring that the work I do will be of respectable quality. When setting the more artistic goals for myself, I ensured to make them realistic but difficult to reach, and I borrowed some of the strands from the design cycle, using things such as aesthetics as things to assess my product on.

Product Success Criteria	Details
<u>Function:</u> 1. The story is clear and understandable to all by the end of the film.	<p>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.</p> <p>I will measure this through a short survey that I will give to a test group of viewers.</p>
<u>Aesthetics:</u> 2. All of the drawings are of high visual quality, complete with shading and finer details	<p>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.</p> <p>I will ask my art teacher to assess my drawings prior to animation, based on my criteria.</p>
<u>Animation:</u> 3. I will create two minutes of animation	<p>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.</p> <p>It seems that within my time frame, and with all of the work I have to do, 2 minutes will be challenging but achievable.</p>
4. Movement in the animation will be fluid and realistic	<p>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.</p> <p>I will measure this through a short survey that I will give to a test group of viewers.</p>

5. 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.

Plan for Achieving the Product

I created two separate timelines for the project, one being a general timeline for the entire project and all its due dates, and the second being a product specific one. The general timeline is more of a weekly/monthly planner that will just give me a general understanding of what I am supposed to be working on, while the product specific timeline was created to plan out each step of my creation process up until January 26th. I set up task lists or 'to do' lists for each deadline to ensure that I could complete everything I planned by the due date. While creating my plan, I was careful to consider my product criteria, to ensure that I focused on the specific requirements I had set myself. I found it easier to do this by adding a column to my plan which reminded me which criteria was being addressed.

Plan for Achieving the Product

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

Applying Skills

Achieving the Learning Goal - ATL Skill: Research

In order to achieve my Learning Goal of understanding how to turn my drawings into animation I had to prepare and do a considerable amount of research. When I began doing my research my first step was to create a research plan:

<p>Research Question(s):</p> <ul style="list-style-type: none"> - What must one need to know in order to create an animated piece about astronomy? 	
<p>Complementary Questions:</p> <ul style="list-style-type: none"> - Animation: <ul style="list-style-type: none"> - What are the most common types of animation? <ul style="list-style-type: none"> - 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? <ul style="list-style-type: none"> - 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: <ul style="list-style-type: none"> - What is the universe made up of? <ul style="list-style-type: none"> - 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? <ul style="list-style-type: none"> - 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? <ul style="list-style-type: none"> - 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? 	
<p>Source #5: https://washiblog.wordpress.com/2011/01/18/animation-production-detailed-guide-to-how-anime-is-made-and-the-talent-behind-it/</p>	<p>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.</p>
<p>Source #8: http://www.creativebloq.com/character-design/tips-513264</p>	<p>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.</p>
<p>Source #18: https://solarsystem.nasa.gov/planets/solarsystem/indepth</p>	<p>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.</p>
<p>Source #24: Potential primary source (t.b.c) - several lessons/masterclasses on CGI animation at a videogame and software development studio</p>	<p>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.</p>

Excerpt from Research Plan

My research plan was very useful because in it I outlined all the content I need to cover throughout my research and what information I need to find, along with some starting links and potential sources. I would refer to the plan whenever I would get stuck or confused to get myself back on track. As for the research itself, it went by well. I had looked at a wide variety of sources when doing research. I had primary research, which was information gathered directly by myself, such as interviews and lessons in animation. Then there were books and textbooks, which were useful when it came to astronomy, as it is more factual therefore is easier to find in books. Then there was online research such as various videos, articles, interview transcripts, amateur posts on social media, and official organization websites. However because not all sources can be trusted, I had to evaluate them in order to see if the information is actually reliable and can be used. In order to do that, I went through them using the CARRDS method. The evaluation helped me to identify the sources which would be the best ones to help me reach my goal. When conducting research, most particular on animation and art, I would try to balance the sources between professional and amateur ones and look at a variety of sources. I would look at documentaries or interviews with people from the animation business such as professional animators, editors or storyboard artists (Berkeley Advanced Media Institute, 2016), but also go on blogs (Aneyka, 2016) where other students or amateur artists would write their own tips and suggestions that I could later consider. I did this because I wanted to understand animation and digital art in particular from a perspective of a trained professional and a self-taught amateur. This approach helped me to achieve my learning goal because it helped me to understand what was possible for me as an amateur, and the skills and techniques that I could practice for myself. In the end I wrote all my research out on a single document which helped me put it together and answer the questions I had before starting my product. One of the best pieces of research I did was the in-person lesson on CGI animation. Being able to talk it through with an expert was very valuable. I did some general research on the topic before the lesson so that I was able to prepare questions in advance. My learning goal was to learn how to turn my drawings into animation and I feel that the research I did gave me an answer to that question, and prepared me to create my product.

	<p><u>CARRDS Evaluation of Sources</u></p> <p>Source: Karpenko, N. (2017). <i>CGI Animation Beginner's Lesson</i>. [Personalized lesson to student researcher] 28 October 2017</p>
CREDIBILITY:	<p>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.</p>
ACCURACY:	<p>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.</p>
RELIABILITY:	<p>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.</p>
RELEVANCE:	<p>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.</p>
DATE:	<p>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.</p>
SOURCES:	<p>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).</p>

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).

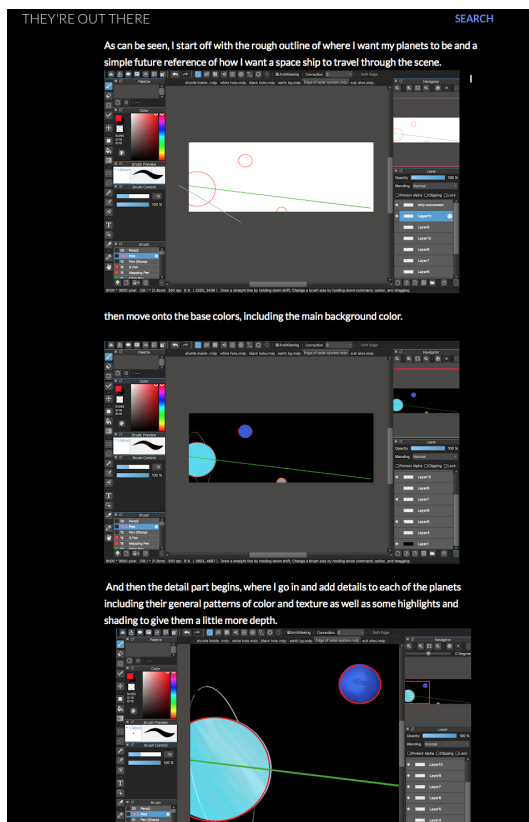
Once the key frames are done, they are passed down to the in-between animators, but not before they are checked by the animation directors. Animation directors check for style consistency and double check that the style chosen by the key animators are appropriate. Then they are passed down to the in-between 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.).

Applying Skills to create a product: Thinking Skills (Critical and Creative Thinking)

When I was done with my research, I realized how challenging this product really is. When I researched the process of how traditional animation was done I understood that I will struggle to do any of that as an individual amateur, and decided that I need to manage my time really well to avoid the risk of turning in an incomplete animation. I had to think creatively in order to be successful. Throughout my planning and brainstorming process I would often write ideas that I had to cut because they

were unrealistic, and I would often have to check that I'm not underestimating the difficulty of the project. When I realized I was behind schedule with my film production, I brainstormed some alternative ways for me to complete the project, such as changing movements of the character to something easier to animate or adding in less complicated background paintings in place of more advanced ones. Once I started the animating process, I also briefly struggled with the software I was using, as the only animation software I was familiar with was that from a private lesson I took on CGI (Karpenko, 2017). However since CGI and traditional animation are quite different, it wasn't easy to figure out the traditional software. To solve this problem, I added some time into my plan to just get to know the software, playing around and seeing what worked. I realised that as I had scheduled the extra time, I didn't feel stressed and

could take my time and get to know the program. After exploring the program, I started noticing similar terms in the options and began finding my way through, eventually familiarizing myself with the software. This solution ultimately helped me to achieve my product as it allowed me the time I needed to ensure I had the necessary skills. In the picture, you can see evidence of the software I used, and some of the steps I took to develop my product.



Reflecting

Reflection: The impact of my project on my learning

When I started the project I thought that I would be able to learn everything I needed to make my product through traditional research. The biggest takeaway for me was that I was surprised to find that actually, I learned more through

the creation of the film and my tutorial than through reading books and websites, as animation is such an interactive topic that it is easier to learn trying it out rather than reading about it. After I got to experiment with various techniques and styles I found a middle ground that suits my skill level and worked comfortably with it, exploring tools in painting softwares that I never knew about. Those tools I found out about are actually extremely useful and I have already began using them for my own personal drawings I do outside of school. I also learnt about CGI as well as traditional animation and how they're made. Creating the drawings and the animations, taught me about the beautiful things humans are able to create to express themselves and tell stories and ideas. I combined those two together to understand that even though earth is technically insignificant in the universe, we can create significant things such as animation to tell stories and express emotion to share them with each other to make our insignificant planet significant to us. Overall, as a result of this, I will now feel more comfortable in taking risks and learning while doing, where I would have previously held back. I understand that research can also be practical, and trial and error.

Product Evaluation



My Product

My final product was a short animated film, consisting of 12 backgrounds and 4 animation sequences. The film shows the journey of a young astronaut and his sidekick traveling from earth, beyond the solar system and through the universe until they reach an alien civilization. I was most inspired by the traditional animation style during research, therefore implemented the Japanese anime-style techniques into my process, resulting in frame by frame movements and more Japanese inspired character aesthetics. While working on the film, I had my criteria by my side to ensure that I am covering all the strands. I would see if what I am doing actually hits the standards I set for myself and if I am moving towards a good grade. The film's visuals depict the beauty of space and what it might potentially hold, which meets my goal. The film shows ideas such as the journey of a man through space and eventually discovering a new civilization, however everything turns out to be a dream in the end. The sad ending suggests that even though it is not possible yet, some day human migration can eventually lead us to meeting other species. I used the global context as inspiration for me to create a film that shows a personal story of one astronaut who gets to see the beauty of outer space, and thus share what he sees with the audience.

Product success criteria: One point rubric

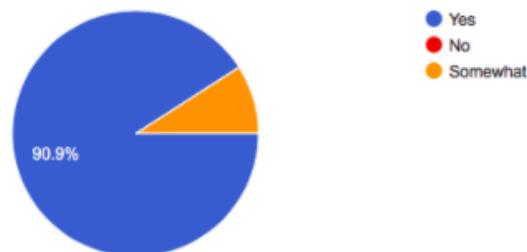
Areas of strength (Glow)	Product success criteria	Areas for development (Grow)
All of the responses from my survey said that they had understood the story. I was pleased that the storyboarding process had contributed effectively to this criterion.	Function: The story is clear and understandable to all by the end of the film.	
	Aesthetics: 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.	
<p>Overall Evaluation: I think that I created a successful product, however not to the highest standard possible. I believe that I did well for a person with my skill level, but naturally nothing is perfect and there's always room for improvement, especially in terms of art. My main weaknesses were maintaining consistent character design and creating fluid movement, and the lack of accurate representation of my knowledge of astronomy. I feel like I could have done more practice background</p>		

drawings before starting the the movie to be more familiar drawing techniques, because I redid a lot of my backgrounds more than once because I couldn't get them to look accurate. If I did trial pieces beforehand, I could have gotten through the process quicker and done more backgrounds to show even more of my knowledge. I met my goal, but not as well as I could have. I sent out a survey to my peers that hits on all strands of my criteria so that I could consider their opinion in my final evaluation.

Product Evaluation: excerpt from my survey

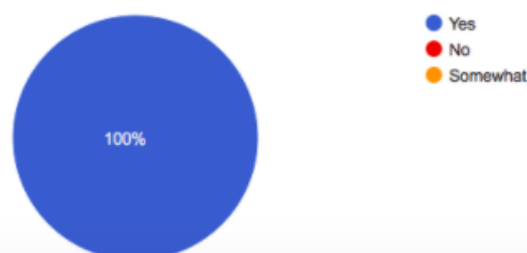
Is this product visually/aesthetically pleasing to look at? Do the drawings look complete and well thought out?

11 responses



Do the sizes of the images look well edited and organized? Do the dimensions look consistent (rather than messy)?

11 responses



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