MEETING 9
ANIMATION

A. LEARNING OBJECTIVE

In this chapter you will be able to use dependent clause in sentences, able to write sentences by using dependent clause, able to speak about animation, able to understand reading text about animation, computer, understand listening text animation

B. DEPCRIPTION DEPENDENT CLAUSE

It is called a dependent clause because the clause is not a complete expression, it is a group of words consist of subject and verbs.the clauses can be adjective clause noun clause or adverb clause

1.1 examples of dependent clauses that are adverb clauses:

- Students stopped making noise when the lecturer arrived in class
- I study hard to my computer project because I like to get best score
- Bill examined inside the CPU As if he knew how to fix it
- If you can finish you study this year you can apply job in my office
- We did the database project in computer lab Until the lab assistant asked us to leave.

1.2 adjective clause such as:

- That I sold him an affordable laptop it is true
- I went to computer fair Which is located in down town area
- I like you to me my friend Who is good at designing
- Whom we met after the class was my brother
- The student, Whose project was always success has graduated

Dependent clause that are noun clause such as below:

- I don't know Why my computer is frozen
- Whomever understand language programming will be a good programmer
- How he finished study was inspiring
- What she thought about the computer lesson was not that hard

C. EXERCISE

1. Structure

1.1 Underline the Dependent Clauses in Sentences

1) Where he goes for vacation nobody knows
2) The leaves fly wherever the wind blows them.
3) While he ordered food online his friend came over with food bag of food in his hands
4) Whereas most new PCs have several USB slots, older ones often only had one.
5) Where is the charger that was on the table?
6) After I asked several friends to help me with the SQL homework, Ali helped me.
7) The Campus where I am studying is located in Pamulang
8) I can't figure out why my computer can’t work faster.
9) We will do whatever is necessary.
10) The animation I like to watch has very interesting story.
11) Animation that most children watch here is Ipin and Upin.
12) The animators that create Nussa are from many different educational background.
13) Children need entertainment that contain education
14) Animations that help children to develop their imagination should be introduced to parents.
15) Animators that create cartoon for children should learn about children needs.
16) The television channels that display cartoon show are always be favorite for children.
17) I like animations that is 3D technology.
18) The thriller movie that I watched yesterday was awful.
19) The special effect in the movie that I watched was awesome.
20) The computer that is running with open source operating system is new.

1.2 Complete the sentences below by using word or words phrase in the box !

a. Moviegoers	**f. modern animations**
b. hand drawn frames	**g. key-frame**
c. computer animation	**h. algorithms**
d. sophisticated	**i. games and movie**
e. Sword-wielding	**j. animate**

1) _____ entertained by hand-drawn cartoon since 1930.
2) Series of_____ can create illusion of lifelike movement.
3) Pong game is the example of the simplest _____ that involves drawing object.
4) More _____ animation can create motion scene.
5) Movement like _____ needs several different positions.
6) _____ uses modern version of animation techniques.
7) The drawings are _____that capture important movement by characters.
8) _____ is possible to be created that describe the optimal in-between frames.
9) There days computer animation could make not only cartoon but also _____.
10) Algorithm can in reality _____ people, animals and other complex objects.

2. Speaking

2.1 Practice the conversation with your partner below!

Mike Do you watch animation based on comic book?

Mark Yes I do I sometimes watch animation based on comic book, but mostly I watch cartoon that is popular and available on screen.

Mike What is more important to you, Story or picture?

Mark Both are important to me. I had watched the cartoon The Lion King traditional animation, I know the story but when there was new released 3D version I watched again.

Mike What is the different between traditional and modern animation?

Mark Traditional animation uses hand-drawn frames while modern animation use computer tools and software.

Mike So what was your favorite old cartoon movie?

Mark There were few cartoon I liked such as Doraemon, lion king old and Sinchan .

Mike How often do you go to movie theater?

Mark I don’t go often I go to movie theater only when there is good cartoon movie.

Mike What is your favorite cartoon movie?

Mark The lion king new version, I have watched many times.

Mike What makes it very special for you?

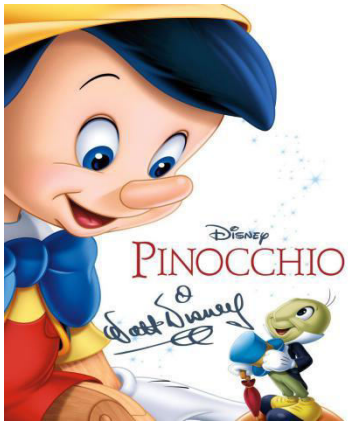
Mark The quality of the sound track is very good, the pictures and the story

Mike Thank you for answering my questions?

Mark My pleasure

2.2. Discuss the question below!


Snow white




underwater

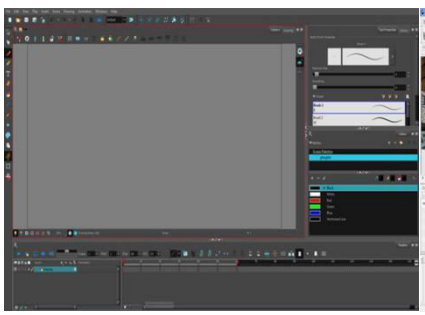
1. Have you seen any of the cartoon movies above?
2. What is your favorite cartoon movie?
3. Why is the cartoon movie interesting?
4. Which is traditional animation? Which is 2D? 3D?
5. Which do you think is easier to make? Why
6. Is traditional animation more difficult? Why or why not
7. Have you ever seen finding Nemo cartoon movie?
8. Is finding Nemo 2D or 3D
9. What is the different between 2D picture and 3D picture?
10. How would you rate Adit Sopo Jarwo animation? Poor, average, good or very good, why?
11. How would you rate Ipin & Upin animation? Poor, average, good, or very good, why?
12. Do you think it is possible to make 4D cartoon?

Example :

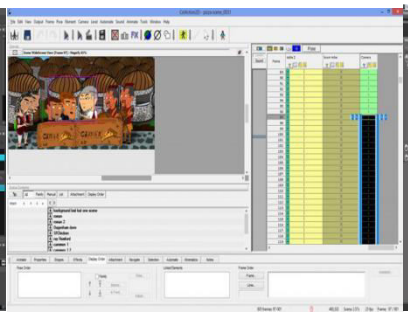
Kim	Have you seen any of the cartoon movies above?
Lee	Yes I have seen them all
Kim	What is your favorite cartoon movie?
Lee	My favorite is the Lion King
Kim	Why is the cartoon movie interesting?
Lee	The pictures make the cartoon is very interesting. There is no impossible movement. Everything is possible.
Kim	Is traditional animation more difficult? Why or why not
Lee	Yes I think so, it is because traditional animation used hand-writing frames, a movie will need millions hand-drawing to finish one movie.
Kim	Which is traditional animation? Which is 2D? 3D?
Lee	Snow white and Pinokio are traditional animations. And incredible 2 and Finding Nemo are 3D animation.
Kim	Which do you think is easier to make? Why
Lee	I think 3D is easier to make because it is computerized and it has software
Kim	Have you ever seen finding Nemo cartoon movie?
Lee	Yes. I have seen many times.
Kim	Is finding Nemo 2D or 3D?
Lee	It is 3D animation
Kim	What is the different between 2D picture and 3D picture?
Lee	2D animation shows that the object has two dimensional while 3D animation comprises the object in height, width and depth.
Kim	How would you rate Adit Sopo Jarwo animation? Poor, everage, good or very good, why?
Lee	I think Indonesian animations need is already good we only need to be improve and create more animation. We have many traditional storied can can be animated. Adi Sopo Jarwo I rate it good. The story and the picure

are already good

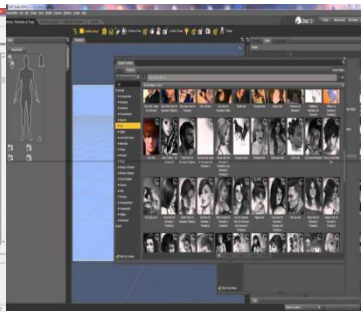
2.3 discuss the question about software animations below!



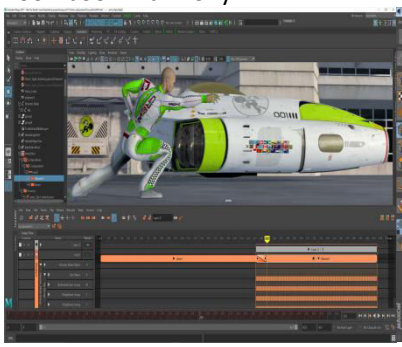
Toon boom harmony



celAction2D

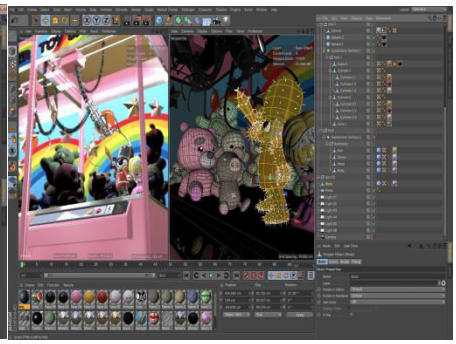


Daz3D Studio



Autodesk Maya

Cinema 4 studio



MAXON 4D cinema

1. Have you tried any of the software animations above? Why, why not?
2. What software do you think is the easiest? Which is the most difficult?
3. Which software is good for making movie?
4. Which software is good for making game?
5. How long does it take to make an hour animation?
6. Which animation software would you like to download? Why
7. If you like to make game? What kind of game?
8. If you like make movie animation. What kind of movie will be?

3. Reading

3.1 Underline the dependent clause in the reading text below!

3.2 Read and record loud the reading text in your phone!

Animation

Ever since the first hand-drawn cartoon features entertained moviegoers in the 1930s, animation has been an important part of the popular culture. Traditional animation uses a series of hand-drawn frames that, when shown in rapid succession, create the illusion of lifelike movement.

Computer Animation Techniques

The simplest form of computer animation (illustrated in games such as *Pong*) involves drawing an object, then erasing it and redrawing it in a different location. A somewhat more sophisticated approach can create motion in a scene by displaying a series of pre-drawn images called *sprites*— for example, there could be a series of sprites showing a sword-wielding troll in different positions.

Since there are only a few intermediate images, the use of sprites doesn't convey truly lifelike motion. Modern animation uses a modern version of the traditional drawn animation technique. The drawings are "key-frames" that capture significant movements by the characters. The key-frames are later filled in with transitional frames in a process called *tweening.* Since it is possible to create algorithms that describe the optimal in-between frames, the advent of sufficiently powerful computers has made computer animation both possible and desirable. Today computer animation is used not only for cartoons but also for video games and movies. The most striking use of this technique is morphing, where the creation of plausible intermediate images between two strikingly different faces creates the illusion of one face being transformed into the other.

Algorithms that can realistically animate people, animals, and other complex objects require the ability to create a model that includes the parts of the object that can move separately (such as a person's arms and legs). Because the movement of one part of the model often affects the positions of other parts, a treelike structure is often used to describe these relationships. (For example, an elbow moves an arm, the arm in turn moves the hand, which in turn moves the fingers). Alternatively, live actors performing a

repertoire of actions or poses can be digitized using wear-able sensors and then combined to portray situations, such as in a video game.

Less complex objects (such as clouds or rainfall) can be treated in a simpler way, as a collection of “particles” that move together following basic laws of motion and gravity. Of course when different models come into contact (for example, a person walking in the rain), the interaction between the two must also be taken into consideration.

While realism is always desirable, there is inevitably a tradeoff between the resources available. Computationally intensive physics models might portray a very realistic spray of water using a high-end graphics workstation, but simplified models have to be used for a program that runs on a game console or desktop PC. The key variables are the frame rate (higher is smoother) and the display resolution. The amount of available video memory is also a consideration: many desktop PCs sold today have 256MB or more of video memory. the intensive effort that goes into contemporary computer animation suggests that the ability to fascinate the human eye that allowed Walt Disney to build an empire is just as compelling today. (Encyclopedia of Computer Science and Technology Revised Edition by Harry Henderson)

3.3 Answer the question below

1. When was first hand-drawn cartoon features entertained moviegoers?
2. How did traditional animation create the illusion of lifelike movement?
3. What is *sprites?*
4. What it *tweening?*
5. What is morphing technique ?
6. What is the function of Algorithms in modern animation?
7. What model has been used to program that runs in PC?
8. How does a complex object move in modern animation? Give example!
9. How does Less complex objects work in modern animation? Give example
10. What does desktop PC specification need for modern animation?

3.4 Match the term [A-G] and the statement below [1-7]

A. Complex objects movement, B. Sprites, C. tweening,
D. Algorithms, E. Less complex object,
F. key-frames, G. morphing

1. Displaying a series of pre-drawn images. _____
2. Catch important motion by the character. _____
3. Key frame that are filled in with transitional frame. _____
4. The making of reasonable intermediate picture in midst two absolutely appears that makes the fantasy of one appears in transforming to others. _____
5. It is able to animate people, animals, and different complex things need the capability to make a design that contains that part of the things that able to transfer individually._____
6. The moving all part of arm form the fingers to hand then for arm or from arm hand then fingers. _____
7. Particle that switch together following basic laws of movement and gravity. _____

https://joshuaprakash.artstation.com/projects/oO6PkO

3.5 Mark True for correct statement and mark False for incorrect statement below !

1) It is called traditional animation if it contains sequences of hand-drawn structure that create phantom of lifelike movement.
   O True
   O False
2) Pong is The complex form of computer animation that involves drawing object.
   O True
   O False
3) It can be one kind of sprite displaying a sword-wielding troll in diverse positions.
   O True
   O False
4) The use of sprites conveys truly lifelike motion.
   O True
   O False
5) Modern and traditional animation use the different animation technique.
   O True
   O False
6) Key-frames captures insignificant movements by the characters.
   O True
   O False
7) A person walking in the rain is example of less complex object.
   O True
   O False
8) Today computer animation is only used for cartoons.
   O True
   O False

4. Listening

4.1 Listen to Sultan Issa Hampton talking about computer animation and mark True for correct statement and mark False for incorrect declaration.

1. Computer animation is the process used for **generating** animated images.
   O True
   O False

2. CGI stand for computer-generated imagery.
   O True
   O False

3. Computer animation only appoint to the moving picture and Computer Generated Imaginary includes both static sight and dynamic picture.
   O True
   O False

4. Old computer animation usually uses 3D computer graphics.
   O True
   O False

5. Computer graphics which are 2D don't use for stylistic, faster real-time and low bandwidth anymore.
   O True
   O False

6. Computer animation is important a digital **predecessor** to the end motion method employ 3D models.
   O True
   O False

7. **Applying** edging-by edging animation of 2D fantasy is called traditional animation techniques.
   O True

O False

5. Writing

5.1 Complete the sentences below!

1) A friend who I went to the computer fair with,

_____

2) _____

while my brother do online course.

3) _____

until the new semester begin.

4) _____

that you saw in computer lab belongs to Smiths.

5) Whenever I go to campus

_____

6) Since no one else help me with computer problem,

_____

7) If you can give me two reasons,

_____

8) The animation that use hand-drawing frame

_____

9) 3D animation that uses computer graphics

_____

10) The animation that has good picture and story

_____

11) Animations that is screen these week

_____

12) The Lion King animation is the animation

_____

13) Children will enjoy the cartoon movie

_____

5.2 Translate the sentences below!

2) I can't figure out why my computer can’t work faster.

_____

3) We will do whatever is necessary.

_____

4) The animation I like to watch has very interesting story.

_____

5) Animation that most children watch here is Ipin and Upin.

_____

6) The animators that create Nussa are from many different educational background.

_____

7) Children need entertainment that contain education

_____

8) Animations that help children to develop their imagination should be introduced to parents.

_____

9) Animators that create cartoon for children should learn about children needs.

_____

10) The television channels that display cartoon show are always be favorite for children.

_____

11) I like animations that is 3D technology.

_____

6. key words

6.1 find the synonym and translate them

English	Synonym	Indonesian
approach, capture, **convey,** describe, desirable, **Entertained** fascinate **illusion,** inevitably, **involves,** **lifelike,** **movement,** **moviegoers,** plausible, require, significant, **sophisticated,** **succession,** **sword-wielding,** **troll,**		

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https://joshuaprakash.artstation.com/projects/oO6PkO