Danger Of Online Gambling Using 2D Animation And Its Acceptance Using UTAUT

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Abstract
At this time, technological developments are unavoidable. Moreover, technological developments in learning media play an important role in educating the public. One of them is learning media with animated videos. This study aims to determine the effect of 2D animated video about the dangers of online gambling on teenagers in Batam City. The author uses the Multimedia Development Life Cycle (MDLC) method in designing 2D animated videos. The author also used quantitative approach by distributing questionnaires through Google Form with a total of 400 respondents. The result of this research shows that the indicators tested are relatively positive. For the measurement model, confirm that all outer loading values are ≥0.65. CR values range from 0.839 to 0.877. The AVE value is between 0.597 to 0.692. Therefore, convergent validity has been met in this case study. For discriminant validity has also been met. The results of the research on the structural model confirmed that Hedonic Motivation (HM) had a significant positive effect, followed by Effort Expectancy (EE), and Students' Innovativeness (SINN) in order. However, Performace Expectancy (PE), Social Influence (SI), Facilitating Conditions (FC), Learning Value (LV) showed that there was no significant effect on Behavior Intention of Animation Usage (BI) in animation usage.

Keywords: MDLC, Animation Video, Online Gambling, Education, UTAUT

Introduction
Technological developments are something that we cannot avoid. Humans actually always want change and progress in all aspects of life (Anggraini et al., 2022). One of them is in the education sector, which plays a role in educating the public. Education plays an important role for humans because it can hone potential and provide more knowledge. Commonly used learning media such as books, power points, booklet, and so on are less effective in increasing

knowledge. According to (Saputra & Gunawan, 2021), learning that uses digital-based media encourages the acceleration of Indonesian society to welcome the era society 5.0 which is in sight. For example computers, audio-visual media, audio media, cellphones, e-books, etc.

The development of educational media with an audio-visual approach not only has an attractive appearance, animated videos make the information provided last longer in memory and make respondents satisfied/happy (Aisah et al., 2021). Now animation media is one of the important things in delivering material. According to (Wahyuni et al., 2021), animation is an interesting learning media in the form of motion visuals. By learning to use animated media, it will further increase your understanding of this online gambling.

In society, there are still many who have not received education on how to deal with existing technological advances. In general, there are still many teenagers who cannot choose how to use the internet properly. The development of technology is the cause of changes in the way people think and act. Harmful actions and bad deeds will make the values in society weak. (Pratama, 2021). One form of unlawful action due to current advances in science and technology is online gambling. Technology provides a new way of gambling, namely online gambling (Purnawinata, 2021). So that online gambling becomes very accessible to various groups in society.

Gambling is one of the oldest games in the world, which almost all countries recognize it as a game that provides benefits (Aulia et al., 2021). In Indonesia, this gambling activity is an activity that is difficult to eradicate and is still growing. Gambling provides benefits at first but will provide harm in the end, which will make people who play it think that the benefits will be obtained again. So gambling is often considered a disease that plagues society and can be especially harmful to the younger generation.

Based on the problems above, it is necessary to make efforts to sensitize teenagers to be able to stop playing online gambling. The author intends to design a 2D animated video about online gambling using the MDLC (Multimedia Development Life Cycle) method. Then, the author conducted further research by distributing questionnaires through google form. With this animated video, it is hoped that it can provide awareness and knowledge about online gambling as a deviant behavior in society. With this, the author raises a research entitled "The Dangers of Online Gambling Using 2D Animation and Its Acceptance Using UTAUT".

Literature Review

In this study entitled "The Dangers of Online Gambling Using 2D Animation and Its Acceptance Using UTAUT" is based on several studies conducted previously, namely as follows:

Research from (Tanuwijaya & Wibowo, 2020) entitled "Designing a 2-Dimensional Animated Video of Malin Kundang Folklore with Toon Boom Harmony Application" discusses the Malin Kundang folktale from West Sumatra. This 2D animated video is made with Adobe After Effects application and then used by the teacher as a learning media. This research uses the MDLC method (Multimedia Development Life Cycle) so that the research is designed in accordance with the objectives, which consists of 6 stages, namely concept, design, material collecting, assembly, testing, and distribution. The result is an animated video with a duration of 5 minutes and 20 seconds. Based on the results of interviews with several teachers who

have used the video, it can be concluded that the feedback from this animated video is effective.

Research from (Wahyuni et al., 2021) entitled "Development of 2D Animation Learning Media in Class X Physics Subjects at SMA Negeri 1 Sawan" discusses the implementation of learning for physics subjects in class X in the form of 2D animation. This research uses research and development and MDLC methods. The results of this study are in the form of learning media packaged in CD form. The test results consist of 100% content expert test, 100% media expert test, 74.34% effectiveness test, 88% teacher response test and 81.02% student response test which is concluded to have a positive impact.

Research from (Dajani & Hegleh, 2019) entitled "Behaviour Intention Of Animation Usage Among University Students" aims to examine the behavioral intention of using animation among students in Jordan. This study uses quantitative methods with the Unified Theory of Acceptance and Use of Technology (UTAUT2) model. The questionnaire was distributed randomly to Jordanian students and received 320 respondents. The results of this study confirmed that with the UTAUT2 model, 48.4% of students intend to use animation, concluding that the research has a positive impact.

Research from (Widyanto et al., 2021) entitled "Student Acceptance of Online Learning During the Covid 19 Pandemic" discusses student acceptance in the implementation of the online learning process during the pandemic. This research uses quantitative methods with survey methods using a sample of 50 students at SMAN 1 and 50 students at SMAN 2 Kahayan Tengah District, Pulang Pisau Regency, Central Kalimantan Province. The research model used is the UTAUT model. The results of this study indicate that performance expectancy and effort expectancy affect behavior intentions. behavior Intentions affect user behavior in participating in the online learning process. Meanwhile, facilitating and social influence do not affect behavior intentions in participating in the online learning process.

Research from (Pratama, 2021) entitled "Criminological Analysis of Gambling CrimesOnline in the Legal Area of the Bali Regional Police" discusses the factors that cause online gambling crimes as social symptoms in community life. This research uses empirical legal research methods and is descriptive in nature. The results of the study resulted in internal factors, namely low human resources and internet abuse. External factors such as economic factors, community factors are not law-abiding, and environmental factors.

Research Methods
Reseach Flow

There are stages in the research carried out by the author in the form of a systematic framework in several research flows, and these stages will explain the entire research process of the author. The following is the author's research flow (refer to Figure 1):
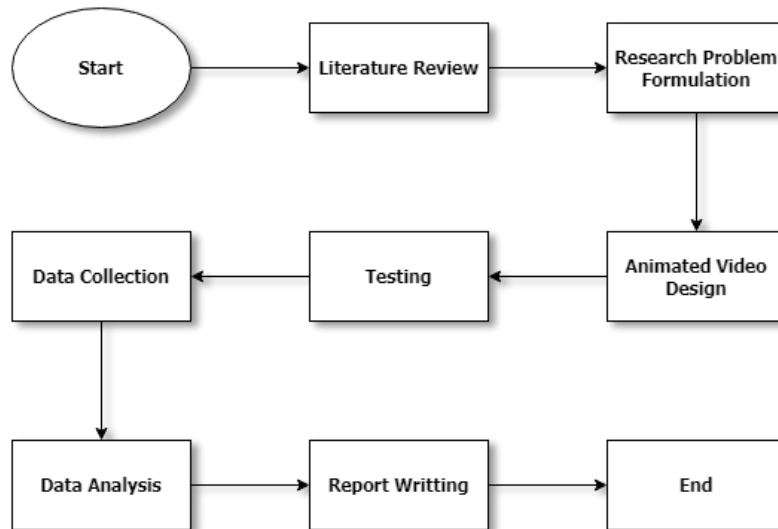
Figure 1. Research Flow

The following is an explanation of the stages of research that will be carried out by the author:

1. At the literature study stage, the author will collect sources relevant to the research topic as references for research.
2. The research problem formula stage, the author formulates and identifies the problems that will be carried out and produced in this study.
3. In the animation design stage, the writer will plan a 2D animation video about gambling online using Multimedia Development Life Cycle (MDLC) method.
4. The testing stage, after the 2D animation video is complete, testing will be carried out to ensure that the animated video runs properly and correctly.
5. In the data collection stage, the author will collect quantitative data by distributing questionnaires via google form to teenagers who have watched the 2D animation video.
6. At the data analysis stage, the author will analyze the data that has been collected through the questionnaire.
7. Report writing stage, the last stage where the author will compile the results of the research in the form of a report.

Problem Analysis

Based on the background of this research, online gambling, which is often carried out by teenagers, is one of the activities that is difficult to eradicate and is still growing due to the lack of awareness of the actions taken. With this, the author will design and develop a 2D

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animated video to increase teenagers' understanding of online gambling activities. The 2D animated video is designed using the Multimedia Development Life Cycle (MDLC) method. Then in this research, the author will conduct a quantitative approach to test the effect on adolescents in learning the designed 2D animated video.

Multimedia Development Life Cycle (MDLC)

In this study, the author uses the Multimedia Development Life Cycle (MDLC) research method. The method is appropriate for designing and developing animated video learning media that combines images, sound, video, animation and others. It consists of six stages, namely concept, design, material collecting, assembly, testing and distribution (Kumala et al., 2021). Below is a summary of the process using the MDLC method.
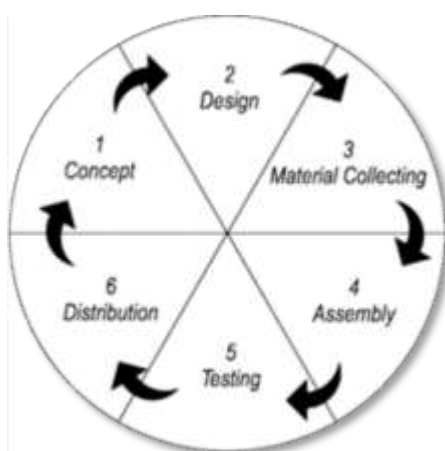

Figure 2. Multimedia Development Life Cycle (MDLC)

1. Concept

In the concept stage, the author determines the purpose of a study by thinking about the concept in making 2D animation such as determining the content of the material, content, subject, duration, and sound in the animation video.

2. Design

At the design stage, the author creates a 2D animated video design based on a predetermined development concept. The author uses a storyboard as a description of each scene as a reference.
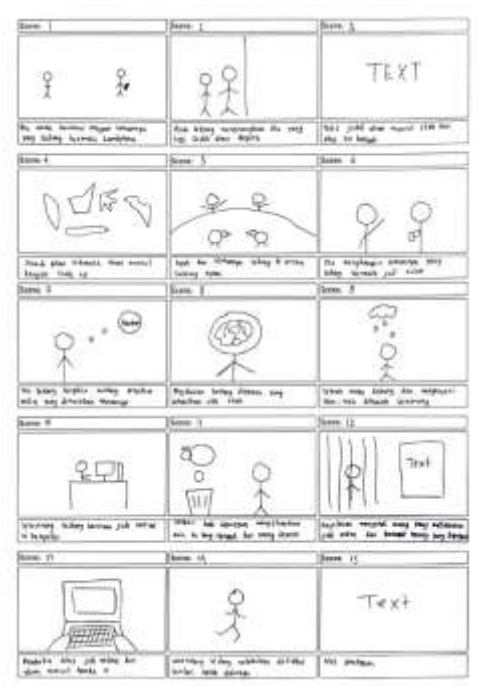
Figure 3. Storyboard

3. Material Collecting

In the material collecting stage, the author looks for educational material content about the dangers of online gambling from several sites and journals related to the designed video. After the related material has been collected, the author compiles it into a script for the animated video, and the voice actor who reads the script will be filled by the voice of ai from the ElevenLabs site. The background sound for the video was searched through Youtube. Materials such as clip-art, graphics, animations, characters, and other images were obtained from designs using Adobe Photoshop and Adobe Illustrator.

Figure 4. Assets for Animation Video

Figure 5. Scripts for Animation Video

4. Assembly

In the assembly stage, after the required materials are collected, there are several processes that must be carried out, namely compositing, keyframe animation, motion graphics, sciprting, audio, output, and rendering using Adobe After Effects. Making a 2D animated video based on the storyboard and creative process derived from the concept design stage. The software and hardware requirements that will be used by the author in this stage include:

a. Software Requirements

- Adobe Photoshop
  Assets such as objects and backgrounds needed in the design of 2D animation videos will be created using Adobe Photoshop.
- Adobe Illustrator
  Characters, clip art, and other objects needed in the design of 2D animated videos will be created using the Adobe Illustrator application.
- Adobe After Effects
  After the materials have been created, the author uses Adobe After Effects application to do compositing, keyframe animation, motion graphics, sciprting, audio, output, and rendering.

Figure 6. Animation Video Design Process

b. Hardware Requirements

The following are device specifications for designing and developing 2D animation videos, among others:

Table 1. Hardware

Operating System	Windows 11 64-bit	
System Manufacturer	MSI	
System Model	GF63 Thin 9SC	
Processor	Intel(R) Core(TM) i7-9750H @ 2.60GHz	CPU
Memory	16.00 GB RAM	

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5. Testing

In the testing stage, the author tests whether the results of the preparation are in accordance with the design stage and identifies whether the 2D animation video is suitable for distribution to test its effect.

6. Distribution

At the distribution stage, the author will publish the 2D animation video that has been designed to YouTube, as well as share YouTube links and questionnaires on social media such as Instagram, Whatsapp, and Line.

Model Penelitian

The research model used is a reference to research conducted by (Dajani & Hegleh, 2019) namely in the form of the Unified Theory of Acceptance and Use of Technology (UTAUT2) model. In this research model, there are two variables, namely the independent variable consisting of Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Learning Value, Hedonic Motivation, Students' Innovativeness, and the dependent variable consisting of Behaviour Intention of Animation Usage. The following is the research model used (refer to Figure 7).
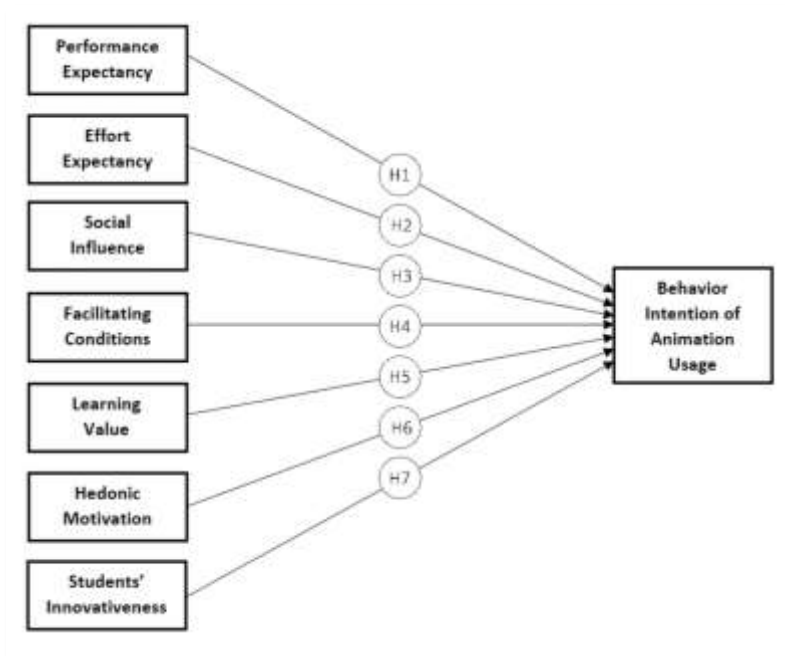
Figure 7. Unified Theory of Acceptance and Use of Technology (UTAUT2) Research Model

The research hypothesis is as follows:

H1 : Performance expectancy has a positive impact on the value of student behavior in using animation.

H2 : Effort expectancy has a positive impact on students' behavioral value in using animation.

H3 : Social influence has a positive impact on the value of student behavior in using animation.

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H4 : Facilitating conditions have a positive impact on the value of student behavior in using animation.

H5 : Hedonic motivation has a positive impact on the value of student behavior in using animation.

H6 : Learning value has a positive impact on the value of student behavior in using animation.

H7: Students' innovativeness has a positive impact on students' behavioral value in using animation.

The operational definition of variables used to develop this research instrument is shown in the table below.

Table 2. Operational Definition of Variables

Variabel	Indicator
Performance Expectancy	**PE1:** Using animation is a useful learning process.
	PE2: Using animation helps me to better achieve my learning duties.
	PE3: Using animation increases my learning process productivity.
	PE4: Using animation enhances my possibilities of earning better grades.
Effort Expectancy	**EE1:** Using animation is clear and comprehensible.
	EE2: It is simple to become proficient when using animation.
	EE3: Using animation is easy.
	EE4: Learning to work with animation is simple.
Social Influence	**SI1**: Individuals who affect my actions believe that I must use animation.
	SI2: Individuals who are significant to me believe that I must use animation.
	SI3: Teachers are supportive to use animation.
	SI4: Overall, the university may support animation usage.
Facilitating Conditions	**FC1**: I get the important means to use animation.
	FC2: I possess the important information to use animation.
	FC3: Using animation is well-matched with other systems I use in the learning process.
	FC4 : Individual(s) is there to help me if I face any problem in using animation.
Learning Value	**LV1**: Animation provides me with the opportunity to control my own learning time.
	LV2: Animation provides me a chance to enhance my knowledge and to control my success.
	LV3: Animation helps me to immediately and easily communicate my knowledge with others (e.g., short movies, animated images, forums, etc.).
Hedonic Motivation	**HM1**: Interaction with using animation is fun in my learning process.
	HM2: I find using animation is thrilling in my learning process.

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	HM3: I find using animation is enjoyable in my learning process.
	HM4: I find using animation is exciting in my learning process.
Students' Innovativeness	**SINN1**: If I knew about a new innovation, I would discover new ways to try it (e.g., animation).
	SINN2: I would be the first among my friends to try out a new technology.
	SINN3: Generally, I seek to experiment new technologies (e.g., animation)
Behaviour Intention	**BI1**: I expect to use animation in the next semester.
	BI2: I would advise my friends of animation usage in the following semester.
	BI3: I would tell constructive things about animation usage in my learning process.

Population and Sample

The population in this study is the adolescent population in Batam City. The adolescent population is aged 15-24 years based on the Batam City BPS (Badan Pusat Statistik) with a population of 189,433 in the 2020 population census data. The sample was taken based on stratified random sampling method. The sampling technique in this study used the Slovin formula. The number of samples to be used in this research is 400 people with a margin of error of 5%. The author will take three age groups from the existing data to be included in the questionnaire, namely the age groups 15-17 years, 18-21 years, and 22-24 years.

Data Collection

The author will collect data by distributing questionnaires in the form of google forms. The questionnaire contained in the google form is in the form of questions related to the indicators used. The author measures respondents using a Likert scale of 1-5, namely 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree), and 5 (strongly agree). The questionnaire will be distributed through social media such as Instagram, Line, Whatsapp and there will also be a link to the questionnaire in the description of the video that will be uploaded on Youtube.

Data Processing and Analysis

After the author collects data from respondents, the data collected will be processed and also analyzed using the Smart PLS 4 program to test convergent validity, reliability, discriminant validity, and hypothesis testing. Variables are declared valid if the outer loading value is> 0.65, a good Cronbach's alpha value is more than 0.7, the composite reabilities (CR) value is> 0.8 the item variable is reliable, and the average variance extracted (AVE) value is> 0.5, meaning that the requirements for good convergent validity have been met or indicate that the construct can explain 50% or more of the variation in the item. For discriminant validity, cross loading testing must show a higher indicator value for each construct compared to indicators on other constructs.

In hypothesis testing, the criteria used are path coefficients, T statistical value, and probability value. The path coefficients criterion indicates that if the value is positive, then there

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is a unidirectional relationship between the influencing and influenced variables. Conversely, if the value is negative, then there is an opposite relationship between these variables. For the T statistical value criterion is> 1.98 and a hypothesis is said to be significant if the probability value (P < 0.05) to decide whether the hypothesis can be accepted or rejected.

Results and Discussion

Animation Video Design Result

The final result of this design is a 2D animation that educates about the dangers of online gambling, which includes the main problems, causes, consequences, and how to overcome them. The process of making this 2D animation video uses hardware in the form of an MSI laptop. For software needs, Adobe Photoshop and Adobe Illustrator were used in the asset creation stage and Adobe After Effects in the animation video editing stage. The following are the results of some learning video footage that has been made:

Figure 8. Scene 1

In the first scene, we will enter the video with a blur effect in the first second. The main character comes up to a friend, and is confused about what is being done to his friend. The main character waves his hand and a question mark appears above his head.

Figure 9. Scene 2

In the second scene, a father comes from right to left to approach his son who is sad or depressed. Then his father strokes his son's back to calm his son down.

Figure 10. Scene 3

In the third scene, there is an animated video title that appears with a slide effect from top to bottom in order from the word danger, then gambling, and finally online.

Figure 11. Scene 4

In the fourth scene, Indonesia country will zoom in quickly at the beginning, then immediately change to the fifth scene.

Figure 12. Scene 5

In the fifth scene, the chicken arena and the two characters who are his father and his father's friend will enter using a slide effect from top to bottom. The two chickens will walk

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from the left and right into the arena. The hands of the father and his father's friend will move up and down to support the chickens that are fighting in the arena.

Figure 13. Scene 6

In the sixth scene, the main character approaches his friend and realizes that his friend is playing online gambling on the gadget he is holding. The gadget that his friend is holding will show plus and minus signs of the money he is playing.

Figure 14. Scene 7

In the seventh scene, the main character thinks whether it is true that playing online gambling can make a lot of money so that he will get rich quickly.

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Figure 15. Scene 8

In the eighth scene, this scene will appear a person facing right. Then the opacity on the person decreases and a brain appears on his head. The blue line that appears on the brain is dopamine. We will explain about dopamine produced by the brain.

Figure 16. Scene 9

In the ninth scene, a person is hoping that he can get money in a fast way. So there is a cloud coming from the left to right above the person, then it rains coins on the person.

Figure 17. Scene 10

In the tenth scene, Neymar Jr. is playing online gambling on his computer, then loses and spends about 16.3 billion Rupiah that will appear on the monitor. Neymar Jr. was shaking his head and dizzy due to losing gambling.

Figure 18. Scene 11

In the eleventh scene, the main character has a sad and depressed expression. There is a piggy bank that drops its money into a trash can, because of the explanation of spending the savings only to play online gambling.

Figure 19. Scene 12

In the twelfth scene, there is a prisoner knocking on the bars of the prison. On his right side there is a box that will contain an article about people who play online gambling. The text will be displayed with a typewriter effect.

Figure 20. Scene 13

In the thirteenth scene, a person is accessing an online gambling site and the hand is typing on the laptop keyboard. Then the X logo appears, which explains that we should be able to block sites like this.

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Figure 21. Scene 14

In the fourteenth scene, Neymar Jr. is doing useful activities such as running. Because doing useful activities can reduce activities such as playing online gambling.
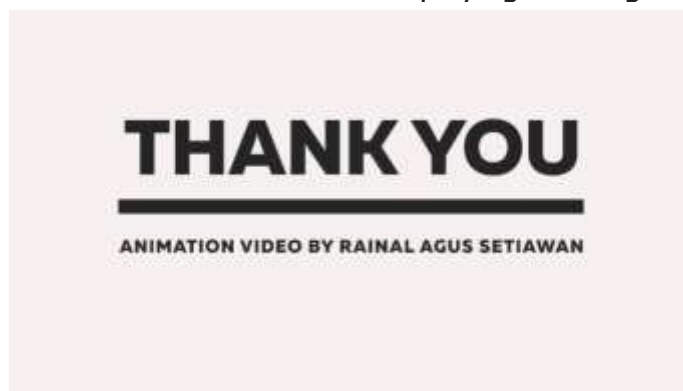
Figure 22. Scene 15

In the closing scene, the text Thank You will appear from the top and a long line will appear from the left. After that, the text Animation Video by Rainal Agus Setiawan will appear from the long line.

Quantitative Data Analysis Results

The result of a questionnaire that has been completed by 400 teenage respondents in Batam City. The respondents were 196 males (49%) and 204 females (51%). The number of respondents taken based on 3 age groups, namely 15-17 years old totaling 35 people (8.75%), 18-21 years old totaling 301 people (75.25%), and 22-24 years old totaling 64 people (16%). This means that the highest percentage of the sample is represented by adolescents aged 18-21 years with a percentage of 75.25%.

Table 3. Descriptive Statistics of Research Variables

	Mean	Standard Deviation	Excess Kurtosis	Skewness
PE01	4.202	0.743	2.980	-1.264
PE02	4.225	0.741	1.634	-0.979
PE03	4.183	0.761	1.494	-0.969
PE04	4.152	0.774	1.978	-1.082
EE01	4.195	0.753	2.807	-1.256
EE02	4.202	0.746	1.398	-0.964
EE03	4.180	0.795	1.997	-1.172
EE04	4.155	0.804	2.139	-1.187
SI01	4.157	0.802	2.196	-1.198
SI02	4.110	0.805	1.152	-0.953
SI03	4.270	0.786	2.347	-1.293
SI04	4.155	0.729	1.737	-0.910
FC01	4.225	0.751	2.611	-1.213
FC02	4.197	0.777	2.377	-1.226
FC03	4.180	0.805	2.350	-1.263
FC04	4.107	0.791	3.284	-1.349
LV01	4.188	0.789	1.956	-1.143
LV02	4.168	0.758	1.551	-1.016
LV03	4.160	0.741	1.578	-0.968
HM01	4.228	0.742	3.048	-1.241
HM02	4.210	0.759	1.339	-0.992
HM03	4.280	0.753	1.473	-1.078
HM04	4.190	0.771	2.359	-1.196
SINN01	4.205	0.740	2.486	-1.127
SINN02	4.188	0.736	2.425	-1.141
SINN03	4.205	0.750	1.333	-0.962
BI01	4.213	0.789	2.352	-1.224
BI02	4.165	0.795	2.221	-1.232
BI03	4.210	0.782	2.108	-1.175

Descriptive analysis in Table 3, the results show that the mean value is higher than 3.5 in all indicators (29 indicators), which is a relatively positive indicator for these answers. Data testing using Smart PLS 4 by analyzing the data collected in two stages. The first step is with the measurement model to assess the reliability and validity of the theoretical constructs. The second step is the structural model to describe the pathways between the constructs. PLS was used because it is a good technique for calculating path coefficients in structural models and has the ability to model latent constructs when data are not normally distributed and when samples are small to medium in size.

1. Measurement Model

According to (Dajani & Hegleh, 2019), first outer loading is considered valid if >0.65. Second, a good Cronbach's alpha value is above 0.7 (Simon et al., 2021). Third, the composite reabilities (CR) value> 0.8 variable items are realizable. Fourth, the average variance extracted (AVE) value> 0.5 means that the requirements for good convergent validity have been met or indicate that the construct can explain 50% or more of the variation in its items. The results of this analysis confirm that all outer loading values are >0.65. CR values range from 0.839 to 0.877. The AVE value is between 0.597 to 0.692. Therefore, convergent validity has been met in this case study. These measurements can be seen in Table 4.

Discriminant validity of cross loading testing should show a higher indicator value of each construct compared to indicators on other constructs. The measurement results show that there is no strong relationship between the variables. This indicates that the model is suitable for the proposed research as shown in Table 5.

Table 4. Validity and Reliability Test Results

Items	Loadings	Cronbach's Alpha	CR (rho_c)	AVE	Conclusion
Performance Expectancy		0.785	0.861	0.608	Realible
PE01	0.778				Valid
PE02	0.754				Valid
PE03	0.766				Valid
PE04	0.819				Valid
Effort Expectancy		0.779	0.858	0.601	Realible
EE01	0.759				Valid
EE02	0.761				Valid
EE03	0.770				Valid
EE04	0.811				Valid
Social Influence		0.774	0.855	0.597	Realible
SI01	0.786				Valid
SI02	0.753				Valid
SI03	0.785				Valid
SI04	0.766				Valid
Facilitating Conditions		0.812	0.877	0.640	Realible
FC01	0.801				Valid
FC02	0.788				Valid
FC03	0.802				Valid
FC04	0.808				Valid
Learning Value		0.734	0.850	0.654	Realible
LV01	0.834				Valid
LV02	0.751				Valid

LV03	0.838					Valid
Hedonic Motivation		0.806	0.873	0.632		Realible
HM01	0.805					Valid
HM02	0.775					Valid
HM03	0.792					Valid
HM04	0.807					Valid
Students' Innovativeness		0.711	0.839	0.636		Realible
SINN01	0.840					Valid
SINN02	0.740					Valid
SINN03	0.809					Valid
Behavior Intention of Animation Usage		0.776	0.870	0.692		Realible
BI01	0.846					Valid
BI02	0.801					Valid
BI03	0.847					Valid

Table 5. Discriminant Validity Test Results

	BI	EE	FC	HM	LV	PE	SI	SINN
BI01	**0.846**	0.705	0.687	0.728	0.664	0.664	0.665	0.680
BI02	**0.801**	0.700	0.686	0.704	0.624	0.661	0.649	0.680
BI03	**0.847**	0.721	0.688	0.700	0.661	0.693	0.683	0.705
EE01	0.645	**0.759**	0.691	0.692	0.634	0.660	0.617	0.676
EE02	0.636	**0.761**	0.649	0.636	0.606	0.656	0.636	0.633
EE03	0.677	**0.770**	0.657	0.650	0.580	0.606	0.621	0.605
EE04	0.684	**0.811**	0.672	0.670	0.655	0.650	0.662	0.660
FC01	0.682	0.694	**0.801**	0.726	0.651	0.703	0.662	0.675
FC02	0.624	0.668	**0.788**	0.677	0.63	0.687	0.639	0.672
FC03	0.658	0.687	**0.802**	0.694	0.609	0.675	0.676	0.651
FC04	0.678	0.703	**0.808**	0.668	0.648	0.654	0.706	0.635
HM01	0.672	0.696	0.710	**0.805**	0.638	0.655	0.672	0.680
HM02	0.678	0.682	0.661	**0.775**	0.620	0.661	0.617	0.649
HM03	0.689	0.662	0.677	**0.792**	0.656	0.668	0.649	0.644
HM04	0.677	0.674	0.701	**0.807**	0.615	0.712	0.596	0.678
LV01	0.642	0.682	0.680	0.659	**0.834**	0.648	0.733	0.685
LV02	0.586	0.624	0.600	0.617	**0.751**	0.628	0.606	0.623
LV03	0.667	0.630	0.644	0.654	**0.838**	0.638	0.642	0.637
PE01	0.634	0.640	0.672	0.688	0.609	**0.778**	0.620	0.656
PE02	0.636	0.651	0.675	0.649	0.644	**0.754**	0.604	0.616
PE03	0.603	0.606	0.599	0.616	0.566	**0.766**	0.58	0.576
PE04	0.647	0.683	0.699	0.688	0.637	**0.819**	0.662	0.668

SI01	0.612	0.649	0.623	0.600	0.642	0.593	**0.786**	0.639
SI02	0.605	0.616	0.630	0.596	0.612	0.602	**0.753**	0.643
SI03	0.640	0.657	0.685	0.646	0.632	0.636	**0.785**	0.646
SI04	0.615	0.603	0.654	0.619	0.639	0.613	**0.766**	0.607
SINN01	0.678	0.707	0.681	0.685	0.681	0.675	0.671	**0.840**
SINN02	0.646	0.636	0.628	0.661	0.588	0.617	0.593	**0.740**
SINN03	0.654	0.638	0.656	0.647	0.645	0.639	0.696	**0.809**

2. Structural Model

In hypothesis testing, the criteria used are path coefficients, T statistical value, and probability value. The path coefficients criteria indicate that if the value is positive, then there is a unidirectional relationship between the influencing and influenced variables. Conversely, if the value is negative, then there is an opposite relationship between these variables. The criterion for the T statistical value is> 1.98 and a hypothesis is said to be significant if the P value is <0.05. (Marlius, 2017).

Table 6. Hypothesis Test Results

	Path Coefficients	T-Values	P-Values
PE -> BI	0.064	0.865	0.387
EE -> BI	0.268	3.390	0.001
SI -> BI	0.090	1.371	0.170
FC -> BI	0.046	0.594	0.553
LV -> BI	0.050	0.660	0.509
HM -> BI	0.278	3.668	0.000
SINN -> BI	0.172	2.461	0.014

Table 6 shows that there is a strong positive effect on three hypotheses namely H2, H6, H7, while H1, H3, H4, H5 do not get support. In H2, the path coefficients are 0.268 and have a T value of 3.390 at a significance level of P<0.05. Therefore, this result indicates the hypothesis. It can be concluded that there is a positive impact of Effort Expectancy (EE) on Behavior Intention of Animation Usage (BI). H6, has path coefficients of 0.278 with a T value of 3.668 at a significance level of P<0.05. This result also indicates acceptance of the hypothesis. It can be concluded that there is a positive impact of Hedonic Motivation (HM) on Behavior Intention of Animation Usage (BI). H7, the path coefficients for Students' Innovativeness (SINN) is 0.172 and has a T value of 2.461 at a significance level of P<0.05. This result indicates acceptance of the proposition. It can be concluded that there is a positive impact of Students' Innovativeness (SINN) on Behavior Intention of Animation Usage (BI).

H1, has path coefficients of 0.064, a T value of 0.865 and a significance level of P>0.05. These results indicate rejection of the proportion. Therefore, this indicator does not gain

support and Performance Expectancy (PE) does not have a positive impact on Behavior Intention of Animation Usage (BI). The result for Social Influence (SI) is with path coefficients of 0.090, T value of 1.371, and P>0.05. This result rejects the hypothesis. Therefore, H3 is not supported and Social Influence (SI) does not have a positive impact on Behavior Intention of Animation Usage (BI). H4, has path coefficients of 0.046 and a T value of 0.594 with a significance level of P>0.05. These results indicate rejection and do not get support and Facilitating Conditions (FC) do not have a positive impact on Behavior Intention of Animation Usage (BI). H5, path coefficients of 0.050, T value of 0.660, P>0.05. The results also rejected the hypothesis. Hedonic Motivation (HM) does not get support and has no positive impact on Behavior Intention of Animation Usage (BI).
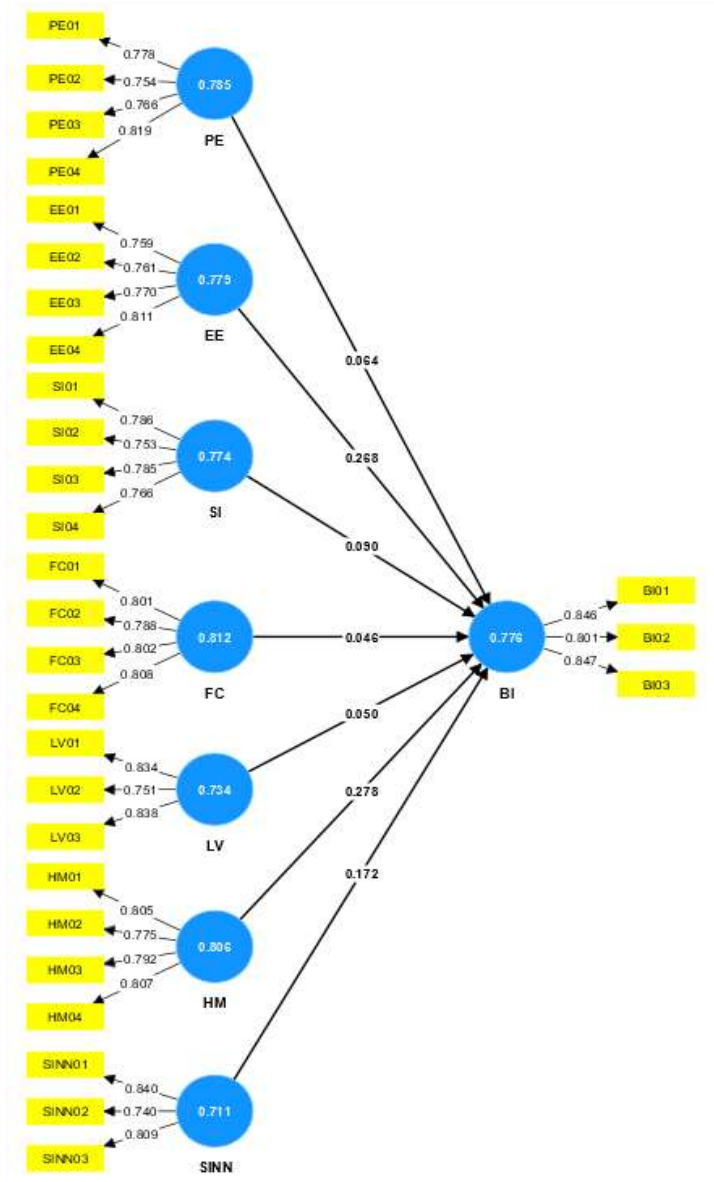

Figure 23. Results of PLS Analysis

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Conclusions

In the research conducted, it can be concluded that the results of designing and developing a 2D animation video project about the dangers of online gambling were successfully implemented using the Multimedia Development Life Cycle (MDLC) method. This study examines the factors that influence the behavioral intentions of adolescents in Batam City in using animation with the UTAUT2 Model. The measurement model shows that it has a good fit and is able to explain the behavioral intention of using animation in Batam City because all outer loading values >0.65 have been confirmed. CR values range from 0.839 to 0.877. The AVE value is between 0.597 to 0.692. Therefore, convergent validity has been fulfilled. For Cronbach's alpha values on all variables> 0.7. In addition, the structural model of the study supports the suitability of the collected data and validates the hypothesized relationship. The results confirmed that Hedonic Motivation (HM) had the most significant positive impact, followed by Effort Expectancy (EE), and Students' Innovativeness (SINN) in order. However, Performace Expectancy (PE), Social Influence (SI), Facilitating Conditions (FC), Learning Value (LV) showed that there was no significant effect on Behavior Intention of Animation Usage (BI) in animation usage.

The results show that the willingness of teenagers in Batam City to use animation is strongly influenced by the learning value of teenagers that the use of animation can provide a new innovation that can make the learning process more interesting and fun. Activities interacting with this animation can provide convenience and advantages in the efficiency of the learning process because the animation makes the material presented easier to understand. So it is expected that teenagers in Batam City can improve their performance and efforts in using animation and can share with friends the learning value obtained from animation videos.

References

Aisah, S., Ismail, S., & Margawati, A. (2021). Edukasi Kesehatan dengan Media Video Animasi: Scoping Review. *Jurnal Perawat Indonesia*, *5*(1), 641–655.

Anggraini, L. N., Fitriyani, Alqirany, F. H., Yumerda, D., & Aeni, A. N. (2022). Pengembangan Video Animasi Sebagai Media Edukasi Adab Bersosial Media Pada Kelas IV Sekolah Dasar. *Al-Madrasah: Jurnal Pendidikan Madrasah Ibtidaiyah*, *6*(4), 1266–1279.

Aulia, A. Z., Maharani, G., Sahira Z, A., Rahmadian, L., Siska, H., Zaki, A., Sari, D. N., Sari, D. N., Wahyuni, W., Lestari, A. S., Lizikri, M. A., Zahhara, N., Wahyuni, D. S., & Afrilianto, D. (2021). *Segenggam Mozaik Untuk Masyarakat* (Dr. S. Zakir, Ed.). Zahir Publishing.

Dajani, D., & Hegleh, A. S. A. (2019). Behavior Intention of Animation Usage Among University Students. *Heliyon*, *5*(10), e02536.

Kumala, F. N., Ghufron, A., Astuti, P. P., Crismonika, M., Hudha, M. N., & Nita, C. I. R. (2021). MDLC Model For Developing Multimedia E-Learning On Energy Concept For Primary School Students. *Journal of Physics: Conference Series*, *1869*(1).

Marlius, D. (2017). Keputusan Pembelian Berdasarkan Faktor Psikologis Dan Bauran Pemasaran PT. INTERCOM MOBILINDO PADANG. *Jurnal Pundi*, *01*(01), 1–7.

Pratama, I. G. N. A. E. Y. (2021). Analisis Kriminologi Terhadap Kejahatan Perjudian Online di Wilayah Hukum Kepolisian Daerah Bali. *Kerta Dyatmika: Jurnal Ilmiah Fakultas Hukum Universitas Dwijendra*, *18*(2), 20–32.

Purnawinata, D. T. (2021). Aspek Hukum Pidana Dalam Perjudian Secara Online. *Solusi*, *19*(2), 252–271.

Saputra, P. W., & Gunawan, I. G. D. (2021). *Pemanfaatan Media Pembelajaran Digital Dalam Upaya Meningkatkan Efektivitas Pembelajaran Di Masa Covid-19* (Vol. 3).

Simon, K., Mulyono, A., Iskandar, H., Pratama, F. H., Astuti, D. W., & Aulia, A. (2021). Pengaruh Kepemimpinan dan Pengembangan Karir Terhadap Niat untuk Tinggal dengan Keterikatan Kerja sebagai Intervening. *MASTER: Jurnal Manajemen Strategik Kewirausahaan*, *1*(1), 37–46.

Tanuwijaya, N. P., & Wibowo, T. (2020). Perancangan Video Animasi 2 Dimensi Cerita Rakyat Malin Kundang dengan Aplikasi Toon Boom Harmony. *Journal of Information System and Technology*, *01*(02), 124–145.

Wahyuni, N. L. D. A., Sugihartini, N., & Sindu, I. G. P. (2021). Pengembangan Media Pembelajaran Animasi 2D Pada Mata Pelajaran Fisika Kelas X Di SMA Negeri 1 Sawan. *Kumpulan Artikel Mahasiswa Pendidikan Teknik Informatika (KARMAPATI)*, *10*(2), 111–112.

Widyanto, I. P., Merliana, N. P. E., & Tantri, N. N. (2021). Penerimaan Siswa Terhadap Pembelajaran Daring Di Masa Pandemi Covid 19. *Kwangsan: Jurnal Teknologi Pendidikan*, *9*(2), 186–203.