

# 2D Public Service Announcement: Challenge Home-based Learning during Pandemic on University Students

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**Abstract—** Home-based learning (HBL) was aimed to help teachers in implementing home-based teaching and learning as an alternative to learning new norms. To ensure contact between teachers and students, home-based learning is implemented online using online communication apps such as Google Meet, Microsoft Teams, and numerous accessible services such as video conferencing. Over an amount of time, students use a screen device such as a computer, laptop, tablet, or smartphone. Technology is important, but there are many factors to consider when creating online learning environments that are truly engaging for students. This research is to study on the challenges of home-based learning during the pandemic that impact to university students. The focus of the research will cover several elements such as style infographic, visualization, illustration, and audio. Also, this research will evaluate the effectiveness among selected respondents regarding the 2D Public Service Announcement (PSA). The model chosen is the ADDIE model which is Analysis, Design, Development, Implementation and Evaluation as the technique to follow. Therefore, I hope that this research will provide a better informed and awareness by using this method among university students in Malaysia.

**Keywords:** Home-based learning, new norms, online, technology, students, challenges, pandemic, PSA

## 1. INTRODUCTION

The outbreak of covid-19 has affected various sectors such as education. All schools and IPTs were forced to close after the government issued an MCO. This led to the closure of many universities across the globe. Universities around the world were forced to go into lockdown mode, closing all campuses and switching the learning method to online learning and digital tools, also known as e-learning, as a replacement. (Mahiswaran Selvanathan, 2020). The lecturer is advised to process Home-based Learning (HBL) online to ensure that IPT students' learning is not affected during this Movement Control Order (MCO). Therefore, in this research we will discuss the effectiveness among selected respondents regarding the 2D

Public Service Announcement (PSA) on the challenge of home-based learning during a pandemic among university students.

This PSA video could be created using 2D animation. Animation now not most effective tickles the eye of youngsters. However, it additionally draws in lots of viewers to help spread the message. The two most hard approaches in 2D animation production are, the era of key-frames and in among frames. The massive quantities of nevertheless animation are produced by using most cool animated film studios manually, that is time-eating and heavy (Idrus, 2020). Public service announcements (PSAs) are a conventional approach for authorities' organizations and non-profit organizations to speak with the public. PSAs are usually broadcast on television and radio, displayed outside on billboards, and posted in print (newspapers and magazines) advertisements with the aim of raising awareness, reinforcing advantageous ideals, intensifying private worries, and motivating human beings to behave on their issues. (Dzaa Imma bt Abd Latiff, 2013).

### a) Objective

The objective of this research is to develop an interactive 2D PSA video on challenges of Home-based learning (HBL) during pandemic on university students, especially teens to have information on Home-based learning during Pandemic. This PSA need raise awareness of home-based learning during the pandemic on university students. Besides, it must evaluate the effectiveness in creating awareness by using Public Service Announcement (PSA).

### b) Problem statement

In the past, Public Service Announcement (PSA) advertising was viewed as dull and uninspiring. The typical public awareness activities, such as forums, have not been able

to raise awareness within the community (Azliza & Wan Ahmad Jaafar, 2012). That's because there's been a lack of creative standards in advertising for years, which has led to this present crisis in advertising visual creativity (Safinas & Ghazali, 2014). Many companies reacted with multi-media anti-bullying campaigns. However, those programs are from time to time unrealistic, giving children extra purpose to view adults as clueless and not able to help them manage the problem (Wiseman, 2011).

Based totally on observation that changed into done, it could be concluded that there is too much out-of-home marketing, specifically in print billboards, signs, and posters, this is simply an element of an advertising and marketing approach for a brand or company photo. To be sincere, this tells loads greater about how companies are falling into societal need than it does about how they're elevating social awareness. This situation needs to be done, and the researcher should decide to be growing and executing an intensive public service announcement (P.S.A.). That makes use of a selection of approaches to capture the attention of the target audiences. It's miles and tries to offer people who are being bullied with an at ease manner to seek help from others.

## 2. RESEARCH QUESTION

Three research questions are defined in this research project. the first research question, it is a 2d Public Service Announcement (PSA) an effective medium to raise awareness among university students. Message delivered visually is more attractive to the audience. This might also result in more effective delivery of information to the audience on the challenges of home-based learning during a pandemic. Second of that, what is the audience's level of awareness and knowledge regarding PSA. During the design phase, it begins with the material and part assembly. All the elements from 2D design, text, background image, and illustration are assembled into PSA videos using development tools in adobe after effect and Adobe Premiere Pro. While making a 2D scenes using Adobe Illustrator. The third question is PSA engagement capable of simply spreading the word to university students. In this study, the research question was assessed using a questionnaire. Based on the data collected in the results and observations, the questionnaire included a total of 28 questions about the user experience and effectiveness. A total of 30 people responded to the questionnaires. According to the results, most respondents strongly agree that the message in the psa clear based on the video. This was focused on several questions, such as 96.7% of respondents answered yes that they can learn more about home-based learning by watching this video.

## 3. RELATED WORKS

### A. Public Service Announcement

PSAs are defined as an advertisement "for which no charge is made, and which promotes programs, activities, or services of

federal, state, or local governments or the programs, activities, or services of non-profit organizations or any other announcements regarded as serving community interests (LaMay, 2002). PSA can now be done using animation techniques as well. By presenting actual life using animated characters to raise awareness of an issue. For this research, I decided to use 2D animation to present the PSA. The Two-Dimensional (2D) animation focuses on creating characters, storyboard, and backgrounds in 2D environments (Idrus, 2020). There are a lot of studies related to persuasion, but most of the time, these studies are only used for the sake of creating public service announcements (PSAs). As a result, most of these ads fail to gain success. As cited in (Bator & Cialdini, 2000) pre-production stage and pretesting stage were included in the step-by-step instructions provided for PSA campaign concepts. Prior to the creation of the PSA campaign, do research on the target audience's attitudes and behaviors during the pre-production stage. As an outcome of these studies, marketing goals may be defined, plans developed, and messages tailored to specific target audiences. In the pretesting stage, responses from the desired audience are gathered using initial sorts of messages before the finished products are created. PSA campaigns should also be evaluated for design execution and effectiveness, both during and after they are completed.

### B. Home-based Learning

According to a media statement (Malaysia Ministry of Higher Education, 2020), all teaching and learning (T&L) activities must be implemented online by December 31, 2020, and no face-to-face T&L activities will be allowed. Because of the unexpected closure of institutions, students lose out on social connection, which is critical for education and socializing, while most schools have started offering online classes. (Shelina Bhamani, 2020). A home-based education system would improve education in general and ensure learning success. Nevertheless, due to the availability of many online resources, some forms of learning may be simple to accomplish. Using technology to perform learning tasks has become easier due to the rapid advancement of technology.

### C. Online learning

Because of the COVID-19 outbreak, during the semester, many students around the world switched from direct instruction to an online learning environment. (Aguilera-Hermida, 2020). The structure of learning environments (e.g., the workspace in which individuals learn) can have a substantial impact on learning outcomes, and technology affects interaction among students (Bower, 2019). Therefore, all students should familiar themselves with online learning because it is impossible to predict when the epidemic will cease due to the epidemic we are facing. However, several critical factors influence the deployment of e-learning technology, such as connection speeds, accessibility, and the amount of time available to instructors and students. (Siti Nurshahidah Sah Allam, 2020).

#### D. Situational and environmental challenges

Concentration while at home was cited as the most difficult task by students. There were numerous distractions, including family members, background noise, and chores (Aguilera-Hermida, 2020). Additionally, environmental interruptions like work commitments and a big home environment, impact readiness level due to lack of self-discipline. As well, interruptions by friends during online class sessions by encouraging the student to engage in online activities such as chatting, shopping, and gossiping affect preparation and self-discipline. Students who lack self-discipline and motivation are at risk for attrition, which negatively impacts their academic performance.

#### E. Case Studies

1. 2D PSA Animation of Green Peace Malaysia, YouTube  
<https://www.youtube.com/watch?v=JvLvNfv3umk>



Fig. 1: PSA 2D Animation Green Peace Malaysia

The idea of this video is to deliver information to the viewer through a narrative. A high degree of narrative structure has a main theme, character, and scenes that follow a timeline of how the characters' goals lead to actions and eventual outcomes (Yang Feng, 2021). It is simpler to understand what must be presented. The animation created is also visually attractive. PSAs combine animation methods and characters to make a stronger impact on viewers, raising awareness of specific concerns and motivating them to do something in the real world. (Dzaa Imma bt Abd Latiff, 2013). Subtitles are included in the video for good understanding. The audience may easily read the infographics because they are not too long. The choice of color in this video is very appealing to the eye and corresponds to the title. The only thing wrong with this video is that it isn't full screen and has a black frame around it. The font is also difficult to read.

2. PSA 2D Animation Spring 2020, YouTube  
<https://www.youtube.com/watch?v=U1J4Hdo3IQ>

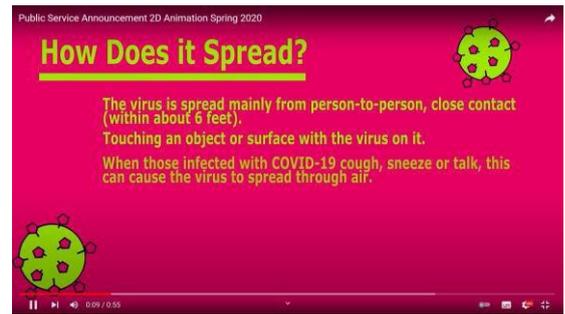


Fig 2: PSA 2D Animation Spring 2020

Based on this video, only infographics and background music are used. There is no narrative in this video, audiences must read for themselves. A story ad with a low degree of narrative structure does not have a clear timeline or causality between scenes, characters, or narrator (Yang Feng, 2021). This distracts people from the video's attraction. Furthermore, the information is too long to read, and it may bore the audience. The colors chosen in the video make it very difficult to read the text. This video also doesn't use a lot of animation, which makes things a bit uninteresting.

3. DELISH, YouTube  
<https://www.youtube.com/watch?v=-NNaSSMyZCU>

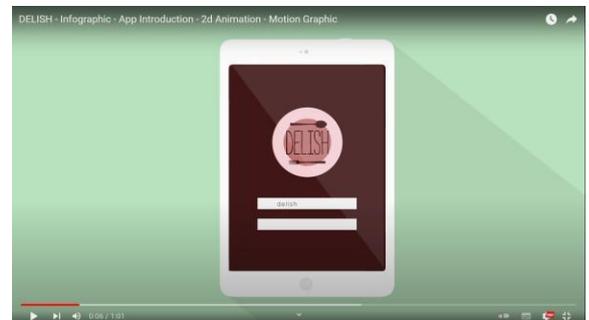


Fig. 3: DELISH

Based on this video, the viewers will be really impressed with the color choices that have been made for excellent impact in all scenes. An animation designed in a minimalist manner makes the information seem more organized, making it easier to connect. In accordance with the animation that has been produced, all steps are clearly presented. There is no narration to the audience in this video, making it less interactive. This video seems to lack subtitles as well. A few of the fonts that were chosen don't go well with the scene.

#### 4. METHODOLOGY

Based on a lack of awareness of how to disseminate PSA to the general audiences, this research aims to demonstrate the proper methods for accomplishing this goal. As a result, the ADDIE model was chosen. According to Eoghan Quigley, 2019, the ADDIE method is a system of instructional design that is designed to help, organize, and optimize the introduction of your direction content. The reason for using the ADDIE model as a technique is because it is straightforward and simple to understand throughout the development process. ADDIE is the most suited for multimedia progress because of its works on interactive multimedia. Because of the time constraints associated with this initiative, ADDIE is also a useful option to consider. This model is divided into five phases, which are shown in Figure 4, and they are respectively referred to as the following analysis, design, development, implementation, and evaluation.

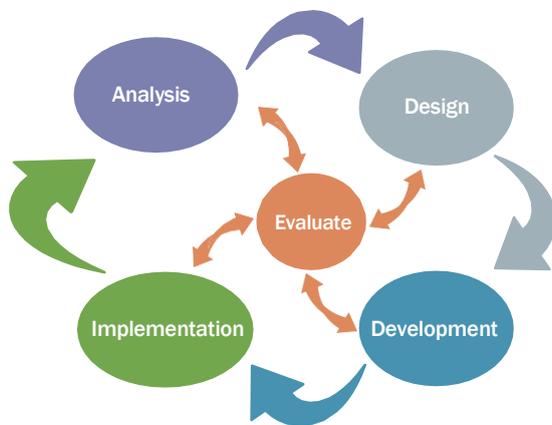


Fig. 4: ADDIE Model

##### 1. Analysis

The initial level of this project was to pick the great title to suit the presentation of the observe topic. The title must be applicable to the cutting-edge infectious disease worries, given that how the difficulties are resolved is critical. Next, analysis is conducted, which involves identifying the problem's main cause, as well as its objectives, aims, and target audience. It also includes identifying the material to be covered, as well as outlining the relevant solutions.

##### 2. Design

In the design process, we recognized the information in literature review to relate the observer's consequences. 2D animation with narration and characters are the measurement of our PSA accommodate the narration of the 2D animation, back-ground sound, audio, narrator,

typeface, interface, coloration and graphic coordination of theme and sense of the PSA. Further to this, the researcher additionally carried out a case examine to decide the discrepancies available on the ones clips to be had online.

As a result, the researcher decided on the characters for the PSA home-based learning, which contains two collections. Character sketches, typography choices, narration, and the PSA's concept and tone were created. The motive is to make it aesthetically attractive, to make sure that messages are transmitted, and to assist the target audience in know-how meanings and tales. In conclusion, a look at turned into completed with the correct audience from the internet for evaluation before launching the PSA.

##### a) Storyboard

A storyboard is a useful tool for visual media project planning. To show how the concept works by describing how it appears through video. Consider how the storyline or plot will be presented, as well as how the scene sequence will be arranged, before starting the project. The final storyboard was created in Adobe Illustrator so that the project's design could be demonstrated.

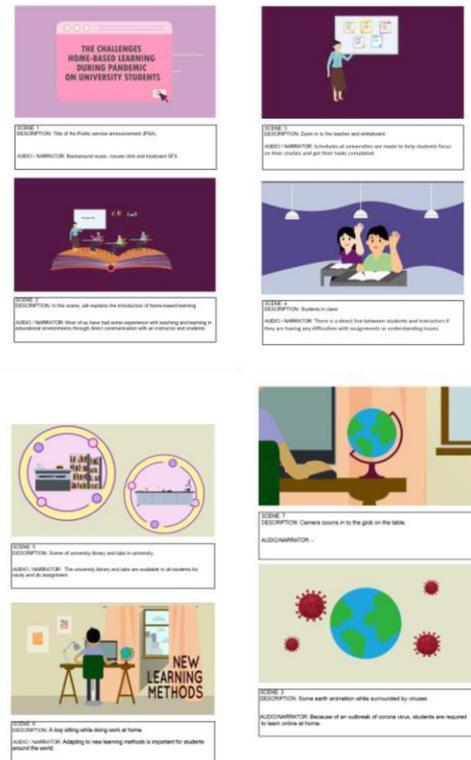


Fig. 5: Storyboard design

b) Theme and Concept

This project's theme is bold and cheery color. The cheerful color entertains the viewer's interest as well as that of the PSA's target audience, which is teenagers. It is important to choose the light and bold color in the right way to have more feelings and moods to the audience, since the bright colors could play upon the storyline as well as the overall theme. A way of arranging a scene to make it more attractive, dynamic, and capable of effectively conveying the information.

c) Content Management



Fig. 6: Prototype screenshot 1

The figure 6 represent the PSA's first scene in series 1. The definition of Home-based Learning is being clarified in this scene.

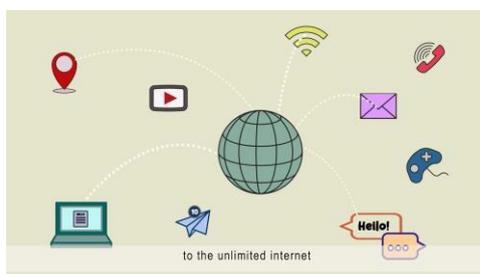


Fig. 7: Prototype screenshot 2

Figure 7 in video series 2 describe the first scene. This scene showed one of the challenges experienced by university students during the pandemic.



Fig. 8: Prototype screenshot 3

The figure showing the final scene of Series 3 describes the video's conclusion.

d) Typography

Typography is important in every multimedia project. Inclusion of interaction sense and screen typography is exceptionally imperative within the instruction video substance (Kopalakrishanan, d. p, 2020). The developer utilised the font Franklin Gothic for the video content and Arial font for the video subtitles in this PSA.

<b>Franklin Gothic</b>	<b>Arial</b>
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Table 1: Type of Font

3. Development

Adobe software became employed in the project's design. In the storyboard procedures, Adobe Illustrator 2020 was applied. It tracks the images and sketches to provide the very last 2d animation output. After effects 2020 software was applied in a 2D picture animation method. Each picture is lively the usage of key frames. The researcher used Adobe premiere pro 2020 to combine all the animation scenes right into a video. At least 70% of the final prototype had to be completed to confirm that the solution worked as expected and without problem. Once the storyboard is complete, the project starts to take design by displaying the interface design utilising the idea that was selected.

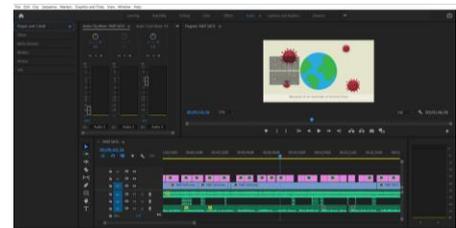
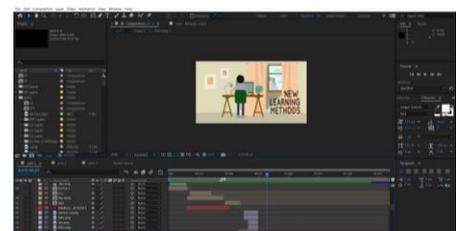


Fig. 9: Progress development

#### 4. Implementation

During the method of implementation, the animations will be put into a video. The final step in which the researcher did experimental process. Earlier than being posted to the target audience, a final look at became completed for faults or system defects before the final process of Questionnaires to the audience was done.

#### 5. Evaluate

To get everything ready, the evaluation procedure was completed. The project was assessed by the team before it was eventually presented to the actual audience.

The distribution of the questionnaire would then carry out the summative evaluation. The video has been watched by users and 28 questions of questionnaires will be given to the target audience so that they can provide feedback on the product by watching the video. The developer can use the information and data received from the reviews to improve the video and ensure that the goal and objectives are achieved.

### 5. RESULT AND DISCUSSION

Based on the results, questionnaires were distributed to respondents using Google Forms and successfully evaluated. In total, 28 questions were distributed and answered by 30 respondents.

3. I can learn more about Home-based Learning by watching this video.  
30 responses

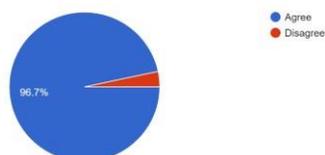


Fig.10: Respondent's agreement they can learn more about Home-based learning by watching this video

Based on figure 10, the pie chart is the respondent's agreement they can learn more about Home-based learning by watching this video. 96.7% of the respondents answered yes and the other answered no.

2. This video can help me in resolving my learning issues during a pandemic.  
30 responses

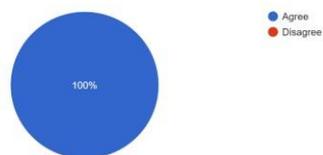


Fig.11: Respondent's agreement this video can help resolving learning issues during pandemic

Based on figure 5.24, the pie chart is the respondent's agreement this video can help resolving learning issues during a pandemic. 100% of the respondents answered agree to this statement.

2. Was the message in the PSA clear based on the video?  
30 responses



Fig. 12: Pie chart of respondent's opinion that message in the PSA clear based on the video

Based on figure 12, the pie chart is the respondent's answer for question did the message in the PSA clear based on the video. 93.3% of the respondents answered yes and the other answered no.

### 6. CONCLUSION AND RECOMMENDATION

At the conclusion of the research project, a public service announcement video was created. The ADDIE model was successfully completed, which involves research, design, development, implementation, and evaluation. Research discovered the issue statements, research objective, and literature review during the study process. Following that, researchers started designing thumbnails and storyboards in the design process. During the development process, the prototype's interactivity was improved. After that, the design elements were assembled into the video. The testing process is then completed, as most probable respondents will want to watch the video before continuing to the evaluation phase. In the end, the questionnaire was distributed to all audiences. The data collection and analysis for the survey are then completed. Almost half of the respondents are completely convinced that the content of this PSA is clear to them.

#### a) Future Recommendation

In consideration of further research and development, the developer will be creating a PSA video with a various of animation styles to make it appear smoother. Also, a more interesting storyline may also improve a PSA video. As a result, it is suggested that more development be done to improve the video so that it can satisfy the audiences.

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