

CHAPTER 5

A Short-animated Film Exploring Disability, Employment and Mental Health

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5.1 Introduction

Disability can be defined as a physical or mental condition that significantly restricts an individual's ability to perform daily activities or work [38]. Those that have been diagnosed as disabled are not classified as having a chronic illness. As stated in defining disability, it involves any physical or mental condition that limits a person's interactions with the world, thus including impairment of their functions. This also encompasses bodily functions, including any physical, mental, intellectual, or sensory conditions that result in substantial limitations to one or more major life activities. According to the World Health Organization, approximately 1.3 billion individuals, representing 16% of the

global population worldwide, were living with significant disability as of 2022, which is equivalent to 1 of 6 populations worldwide [39].

The quality or state of being aware is the direct definition of awareness. This is also referred to as knowledge and understanding that something is happening or exists. (Oxford Dictionary) Raising awareness of disability is necessary due to various factors. The importance of it such as promoting inclusion, reducing stigma, and work and disability employment. Many data have been collected and proven to society on the unemployment rate of disabled individuals in Asia and Pacific were over 370 million persons with disabilities, and 238 million (about 7 and a half years) of them of working age. The unemployment rate is usually double that of the general population and it's even higher to 80% or more [40]. The gap of behaviors and discrimination faced by disabled individuals are twice the number of non-disabled individuals, especially when hiring them as employees. Based on the French field experiment, the highly qualified able-bodied applicants were 1.78 times more likely to receive a favorable response than their disabled counterparts [41].

Animations are not only limited to being a source of entertainment that are meant to be enjoyed regardless of their age. A fascinating medium of entertainment that has been profoundly embedded in global culture, which also shapes and reflects social norms. Several studies [University of Ljubljana, Slovenia] the "Evaluation of The Impact of An Awareness-Based Animation on Students' Knowledge about Mental Illness" [42] have shown the effectiveness of animation in mental health awareness. However, there is limited research applying this to disability awareness. They highlight on giving an outstanding statistic that significantly increases in knowledge about awareness of mental illness and its way of influencing their behaviors. The effectiveness of this research is a pivotal key to demonstrate in raising awareness, especially for children and youth. This method of approach can keep audiences engaged on the topic.

This study aims to develop a hybrid animated short film and evaluate its effectiveness in raising awareness of employment discrimination against people with disabilities. While animation has been used to promote mental health awareness, its application in the context of disability and employment remains underexplored. This project employs a hybrid of 2D and 3D animation production, combined with survey data collection to assess audience awareness and perception. It is anticipated that the animation will increase viewers' awareness and empathy toward disability inclusion in employment. This paper is structured into five sections: introduction, literature review, methodology, results and discussion, and conclusion.

5.2 Literature Review

Disability is still a crucial subject in the field of social and economic discourse. Analyzing the relationship between awareness, employment, workplace accessibility for the disabled community, and its visual representation, particularly in the culinary field. Individuals in this community continue facing barriers dividing them from obtaining their rights to employment and participation completely in society. Advocating for their own basic human rights while also combating discrimination to be equal with those non-disabled. While Rahim et al. [43] demonstrate that 2D animation significantly enhances student engagement and emotional connection, Faria and Peres [44] argue that hybrid formats improve cognitive retention and artistic flexibility. By adopting both styles in this study, it gives both formats to bridge engagement and memory outcomes effectively lasting on the educational impact. This literature review integrates with the preexisting research on disability awareness, employment, work environment and experiences of disabled individuals while also focusing on providing the potential of animation to foster an understanding of the disabled community.

A limited proportions of younger generations demonstrate adequate awareness regarding disability, which may hinder inclusive society [45]. Their lack of knowledge about disability, resulting in their behavioral characteristics towards those

individuals, is unethical. A wide range of understanding of the importance of awareness can be beneficial to many people. This help in fostering empathy and respect, creating inclusive communities and workplaces which can accommodate to all individuals need. Moreover, in-depth comprehension reduces stigma and discrimination by dispelling myths and stereotypes that have been set for disabled community [46]. It also supports structural changes for equitable access for more opportunities and services. Thus, amplifying personal stories is one of the most impactful ways of creating awareness. A method that could bring the whole community together by voicing their voices, which helps dispel misconceptions and develop empathy to the public. Their voices can be heard by creating accounts on social media that will spread awareness widely by partnering with influencers or advocates. It will reach an even broader audience to educate and promote their messages, which can be inclusion to society [47]-[49].

Individuals with disabilities have been underrepresented in the workforce as employment jumped. The rate has remained low, with only 0.3% of the public service workforce that has been compromising the individual with a disability or person with disabilities (PWDs) as of the year 2022 [48]. Moreover, the employment rate of non-disabled individuals has relatively been higher than people with disabilities (PWDs). The contributing factors also include social stigma, discrimination, lack of workplace accommodation, and limited access to education. This is also similar in the field of culinary arts, which can be even more challenging. An instance in which the blind chef, Ian Edwards, stated that one of his workers told him that "I'll never get a job because no one will give me a job" because of her visual impairment [49]. This kind of belief has been one of the obstacles to robbing them of opportunities. However, there have been practical examples on individuals that strive against the impediments thrown at them. Universe Santi, a restaurant in the southern Spanish city of Jerez, by recruiting applicants that are unemployed and have more than 35% disability to qualify [50]. The success story of Christine Hà defying the dangers and challenges in the kitchen to become the first blind chef to win

MasterChef's third season, an individual that thrives in kitchens adapted to their needs [51].

A disability-friendly work environment is a project that requires both structural and procedural adjustments to create them. Disabled workers' workplace and facilities need attentive care to make their place safer and more comfortable for them to work. Individuals with disabilities and workplaces are usually designed to their considerations: physical accessibility and ergonomics, and tech and assistive innovations. This poses a similar case to those working in the field of culinary arts. NDIS-approved builders in Melbourne played a crucial role in transforming kitchens into a disability-friendly environment. One of the modifications is having clear pathways to ensure unobstructed pathways to accommodate mobility aids such as wheelchairs or walkers [52]. Changes that help these individuals to have pleasant experiences during their time working.

Animation has been an exceptional way of promoting social change, including raising awareness. With its captivating visuals and relatable storytelling, animations have the power to influence society in various ways. A pivotal role in helping shape society's consciousness by inspiring, educating, and addressing social norms. This has been proven by the success of emotionally impacted viewers with their complex storytelling and messages. Based on "Animation Concept as a Media to Increase Awareness of Gender-Based Violence against Women with Intellectual Disabilities", the animation has raised the awareness among the Indonesian audiences [53]. This method also helps in raising awareness globally using other social media platforms such as Instagram and TikTok for marketing and advertising. Inspired by the impact of previous awareness animations, this study applies similar approaches to the local Malaysian context through short film animation.

5.3 Methodology

5.3.1 Research Design

This study combines both creative practice and data survey collection. By applying this method, it allows an experimentation on how animation can be used to raise awareness to society, especially to the younger generations. This study is structured into four main components.

(i) Practice Based Method: 2D Animation Development

This practice-based method is the main method, in which we undergo the production of 2D animation, *Chep*. The animation is created as a storytelling tool to raise awareness of disability and keep the audience engage in helping to build a more caring and inclusive society. The creative process involves: Character and background design inspired by the combination of two animated film which is *Camp Snoopy* and *Overcook*.



Figure 5.1: Background of the story in 2D



Figure 5.2: Characters of the story



Figure 5.3: Background of the story in 3D

(ii) Character Pre-production, Production and Post-production

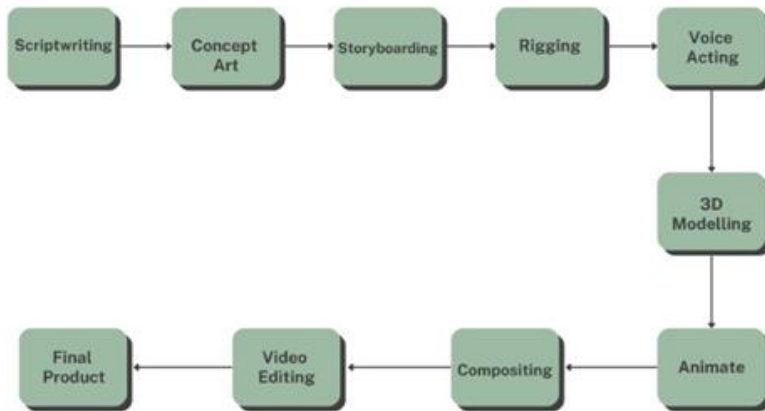


Figure 5.4: Animation Pipeline

5.3.2 Practice Based Method: 2D Animation Development

This project has applied a practice-based method by developing a hybrid animation short film that mainly focuses on 2D animation. It is also a way to explore how to raise awareness about disability to society through modern storytelling. This project does not serve only as an entertainment product but also promotes the importance of combating discrimination against people with disabilities. The type of animation that we choose is 2D animation because it allows a highly stylized visual that makes it ideal for expressive storytelling that can appeal to a diver's target audience.

For this animated film, it been produced using Adobe Photoshop, Moho, Clip Studio Paint and Adobe After Effect. The animation process begins with pre-production in which the characters were made using Clip Studio Paint and Adobe Photoshop then rig the character using Moho. Moho is 2D animation software that

provides powerful rigging systems and make characters look like puppetry. In Moho, we used smart bones to get high-quality rigging and animated our character for smooth movement.

5.3.3 Practice Based Method: 3D Modelling Development

In this hybrid animation project, most of the backgrounds are in 3D while the animation was in 2D. This allowed us to do the animation a lot easier as it needed fewer views from different perspectives. It also makes it possible to gain more realistic lighting that will significantly improve the overall mood and atmosphere for our scenes. Using 3D background also enhanced stylizing the world of animation Chep. Blender is a 3D software that we chose as it is easy and user friendly for beginners. The process of making the backgrounds consists of four steps: modelling, texturing/coloring, lighting, and modelling.

In the post-production process, the use of Adobe After Effect and CapCut software. These softwares are easy to use for enhancing the final product of our animation.

5.3.4 Survey Data Collection

This survey aims to measure understanding of disabilities and to get the audience's preferences about how animation can be a tool for spreading awareness to the public. It has two types of question approach methods which are using both quantitative and qualitative methods while using 'Google Form' as the medium. A total of 56 participants, aged 18-60 were selected via convenience sampling using online platforms, WhatsApp. The main variables measured were (1) awareness level, (2) perceived accessibility, and (3) attitude towards animation. Data were analyzed descriptively using percentage comparison.

5.4 Result and Discussion

Your Age

53 responses

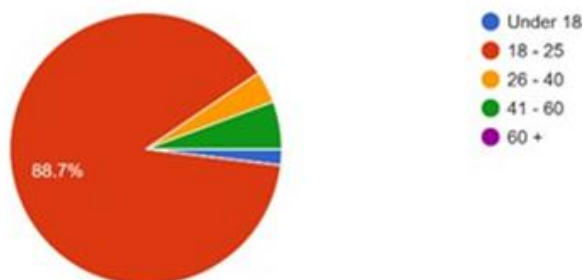


Figure 5.5: shows diagram the participant's age

Your Background

57 responses

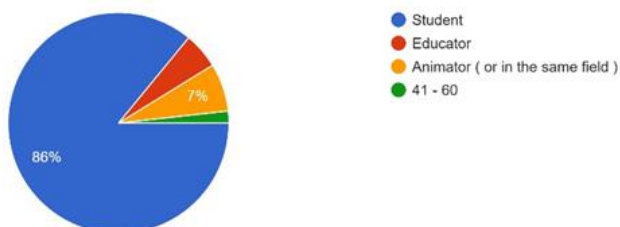


Figure 5.6: Shows diagram the participant's background

In Figure 5.5 and 5.6 show diagrams of the participants characteristics which include their age and background. This help on having a better understanding of the topic based on participants perspective. The Google Form was distributed on college groups, friends and family. The total respondent as of now is 55 respondents.

As shown on Figure 5.5, the diagram shows 89.1% of respondents are individuals at the age of 18 – 25, 5.5% respondents at the age of 41 – 60, 3.6% of respondents at the age of 26 – 40, and 1.8% of respondents at the age of individual under 18. Three groups of participants at the age of 18 – 60 are the ideal age for this project.

In Figure 5.6, the diagram shows that almost 89.1% of the respondents are students. While the minority group that take up 5.5% are people works as educators, 3.6% of individuals work as animator or in the same field.

5.4.1 Awareness of Disability

On this section it will be focusing on respondents' knowledge on Awareness about Disability. It's consist of having three questions with multiple questions (qualitative methods).

Table 5.1: Familiarity answer percentage

Question	Familiar	Somewhat familiar	Not very familiar	Not at all familiar
How familiar are you with the different types of disabilities (e.g., physical, sensory, intellectual, mental health)?	30.9%	52.7%	16.4%	0%

The table 5.1 above provides the familiarities respondent with the different types of disabilities such as physical, sensory, intellectual, and mental health. It shows that half of the respondents are somewhat familiar with the different types of disabilities with the percentage of 52.7%. While 30.9% answer familiar and 16.4% answer not very familiar.

Table 5.2: Yes / No answer percentage

No.	Question	Yes	No	Not Sure
1.	Do you believe that society treats people with disabilities equally?	20%	52.7%	27.3%
2.	Have you ever participated in or come across any campaign or program aimed at raising awareness about disability?	50.9%	49.1%	0%

The table 5.2 highlighted two different questions on awareness about disability. The first question show that half of the respondents do not believe that society treats people with disabilities equally with the percentage of 52.7%, 20% answer yes and 27.3% answer not sure. this provides us information that the need to raise awareness on equality for disabled community even more.

Respondents that participate have participate and come across any campaign or program that aimed at raising awareness about disability with the percentage of 50.9%. However, this campaign or program need to produce or held more to rapidly increase the awareness of it as almost half of the respondents answer no which 49.1% does not know this campaign or program exist.

5.4.2 Facilities for People with Disabilities

Table 5.3 show that almost all the respondents believe that the public space are somewhat accessible for people with disability. This reveal that almost many public spaces such as schools, malls, and transportations are 78.2% somewhat accessible for

them. While 10.9% answered it very accessible and 10.9% answered it was not accessible.

Table 5.3: Accessibility answer percentage

Question	Very accessible	Somewhat accessible	Not accessible	Not sure
In your opinion, how accessible are public spaces (e.g., schools, malls, transportation) for people with disabilities?	10.9%	78.2%	10.9%	0%

Table 5.4: Section Multiple answer percentage

Question	Accessible public transportation	Inclusive education	Healthcare services
Which of the following support services do you think are adequately provided for people with disabilities in our country?	72.7%	60%	81.8%

Financial assistance	Employment support	None of the above	Not sure
40%	38.2%	1.8%	5.5%

This table 5.4 unveils that 81.8% healthcare services are being supported adequately provided for people in our country. Responders also choose 2.7% selected accessible public transportation, 60% chose inclusive education, 40% chose financial assistance, 38.2% selected employment support 5.5% not sure.

5.4.3 Employment Opportunities for People with Disabilities

Table 5.5 show that respondents believe that people with disabilities do have equal opportunities for employment in our country with the percentage of 54.5%, 3.5% disagree and 10.9% not sure. This can help decrease the amount of people who are unemployed.

Table 5.5: Yes / No answer percentage

Question	Yes	No	Not Sure
Do you believe people with disabilities have equal opportunities for employment in our country?	54.5%	34.5%	10.9%

Table 5.6: Multiple answer percentage

Question	Answers	Percentage
What do you think are the main challenges people with disabilities face when seeking employment?	1) Workplace inaccessibility (e.g., lack of ramps, assistive tools)	90.9%

2)Employer bias or discrimination	81.8%
3)Lack of inclusive hiring policies	49.1%
4)Inadequate education or training opportunities	41.8%
5)Social stigma or misconceptions	74.5%
6)Lack of legal enforcement or support systems	56.4%

This section focuses on employment opportunities for people with disabilities. Table 5.6 highlights that people with disability face many challenges when seeking employment. However almost all the respondents agree that the workplace for the are inaccessibility with percentage of 90.9%. While, 81.8% answer employer bias or discrimination, 49.1% answer lack of inclusive hiring policies, 41.8% think inadequate education or training opportunities, 74.5% answer social stigma or misconceptions and 56.4% answer lack of legal enforcement or support systems. This challenge needs to be addressed immediately to increase their possibilities of getting employment in a safe and comfortable environment.

5.4.4 Animation as a Tool for Awareness

Table 5.7 prove that 61.8% of the respondents have seen an animated video or film that raised awareness about disability. While other respondents answered no and not sure (29.1% and 9.1%). This show that animation do help on influencing society on raising awareness about disability with its fascinating storytelling.

Table 5.7: Yes / No answer percentage

Questions	Yes	No	Not sure
1)Have you ever seen an animated video or film that raised awareness about disability?	61.8%	29.1%	9.1%

Table 5.8: Agree answer percentage

Question	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Do you think using animation is an effective way to educate people about disabilities and promote inclusion?	49.1%	43.6%	7.3%	0%	0%

Table 5.8 reveals that almost all the respondents agree that using animation is an effective way to educate people about disabilities and promote inclusion with 49.1% answer strongly agree, 43.6% answer agree and 7.3% are neutral.

5.4.5 Suggestion to Improve on Raising Awareness for Disabilities

This survey also has an open-ended question that allows us to see from respondents' perspective on ways to improve on raising awareness for disability by making more media and creative campaigns and taking educational initiatives from an early age.

Table 5.9: Section 6 Open- ended answer percentage

Question	Category	Percentage
1) Suggestions to improve on raising awareness for disability	1) Educational initiatives	20%
	2) Media and creative campaigns	20%
	3) Social Interaction and Empathy Building	10%
	4) Empowerment of disabled voices	10%
	5) Social interactions and empathy buildings	10%
	6) Public awareness and attitude shift	15%

5.5 Conclusion

To conclude, this research shows that animation plays a pivotal role in raising awareness about disability and educating the younger generation. By also emphasizing that animation is not just merely a form of entertainment but also a powerful medium for educating that can significantly address the need of equality for individuals in disabled communities.

This study successfully developed a hybrid animation of 2D and 3D by using survey responses from 56 participants to evaluate its effectiveness in raising awareness about disability. While the animation shows how immersive engagement from the audiences, the reliance on online survey alone may limit depth of feedback. Future studies should consider qualitative interviews. With this short animated film *Chep*, hope to be a greater purpose as educational content in schools, NGOs or awareness campaigns. Collaboration with disability organizations in the future will be recommended for wider outreach. This short animated film *Chep*, can demonstrate society to build a more caring and inclusive society, where they are inclined to build unbiased judgement. From this animation, future research can explore the long-term impact of animation on behavioral change in promoting awareness. It also hopes to be a source of encouragement to those combating discrimination and mental health.