

## **CREATIVE PEDAGOGIES AND VIDEO MAKING: A STUDY ON MALAYSIAN ADOLESCENTS' PARTICIPATION IN ENVIRONMENTAL ISSUES**

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*This study aims to use a creative visual approach to examine how creativity can be boosted using video making and new media technologies. It is hypothesised that adolescent participation may be optimised through exposure to creative pedagogical techniques that encourage greater freedom of expression. Examples of these techniques include dialogues, small group discussions and a redefinition of roles between researcher and participant. When offered greater autonomy, participants may be more inclined to express their views rather than giving researchers favourable answers. The findings suggested that the individual's response to environmental issues was dependent on his or her knowledge of the issue and familiarity with the given medium. When both of these factors were high, the response was relatively higher. Three themes have been identified from the data collection: (1) motivational outcomes, (2) cognitive impacts and (3) construction of a new identity as active media consumers.*

Keywords: creative pedagogies, video-making, new media, adolescent

### **INTRODUCTION**

The field of creative virtual learning for young children is developing at a steady pace, yet its techniques have yet to be applied to older age groups. As the voices of end users are increasingly essential to planning the design of educational spaces (Woolner et al., 2007), the Young People and the Environment Media Literacy project was launched to explore the possibility of harnessing creative pedagogy for adolescents in Malaysia. The perspective of a child often contradicts the conditions that adults deem to be "desirable" (Burke and Grosvenor, 2003; Rudduck and Flutter, 2004), but their involvement in imagining educational spaces has produced "ideas that teachers would not have thought of" (Rudduck and Flutter, 2004: 21). In this vein, this study aims to explore how

adolescents may contribute original and out-of-the-box ideas with regard to environmental issues when given greater creative license.

## **THEORETICAL FRAMEWORK**

### **Adolescent's Participation in Creativity**

Traditional learning theories show that adolescents learn passively through watching and modelling (Bandura, 1986); in other words, they are non-reactive in their learning process. However, with the introduction of new media, adolescents are allowed space to explore, construct and discover meanings through media consumption without boundaries and restrictions (Lee and Conroy, 2005: 9). Compared to their parents (the baby boomers), adolescents today are more technology savvy; the virtual world of cyberspace, with which they are well acquainted, daily bombards them with large quantities of visual information that, in turn, helps them to make sense of the world they live in (Buckingham, 2003). As constant media consumers, they are endowed with a greater capacity to understand complex issues, and hence they adopt a more concerned stance towards environmental issues.

Adolescents are likely to be more creative if exposed to a conducive learning environment that encourages them to take initiative, collect information and interact with each other (Lucas, 2001). Scholars have researched deeply into the development of creativity in relation to social elements, despite an earlier focus on individual experiences (Ryhammar and Brolin, 1999). According to Vygotsky (2004: 11), creativity is strongly associated with emotions, fantasies, individual experiences and social experiences. Therefore, an engaging learning process has a higher tendency to nurture genuine and critical ideas when adapted from the learner's own perspective. Teachers should encourage self-expression, the individual construction of meaning, and personal creativity instead of consensual creativity (Runco, 2003; 2004; 2007).

Creativity can be developed and taught (Cromptley and Cromptley, 2008). Researchers argue that creativity requires divergent thinking; when adolescents consider other viewpoints, they are able to generate better solutions. Craft (2007) suggests that "possibility thinking" is at the core of creativity in education, and it involves both problem finding and solving. Amabile (1996) further elaborates that intrinsic motivation also plays a crucial role in the development of creativity because intrinsically motivated individuals tend to be more curious, cognitively flexible, open-minded and willing to use non-traditional methods such as film making to reach decisions.

## **Video Making as Creative Pedagogy**

Video entered the public sphere in 1956 via the already established broadcast medium and under the heavy influence of cinema's representational practices (Berko, 1985). As a creative medium, video offers particular assets that other traditional mediums (e.g., print) cannot: (1) a video recording addresses multiple senses by providing both graphical and audio-based representations, which increases the likelihood of students, with their various learning styles and capabilities, understanding and processing the represented information (Koc, 2011); (2) a video recording is capable of visually representing intricate content so that that viewers can notice and concentrate on moments that they think are important and relevant (Wang and Hartley, 2003); and (3) with the advent of the digital video format, adolescents can easily produce, manipulate, and experiment with video, sharing their ideas in a "constructivist" form of learning (Jonassen, 1999).

Gauntlett (2004) argues that video making comes naturally to adolescents due to their early exposure to media. Indeed, adolescents are frequently more skilled than their parents and other adults in handling new media technology. This social gap underlines the importance of understanding how adolescents use media to represent themselves and their social world. When making a video, adolescents are given the tools to present their views in a myriad of individual and unique ways. Traditionally, in projects that involved subject filming, the researcher alone operated the camera. However, in recent years, a more collaborative approach was introduced, in which participants are encouraged to become personally involved in creating representations of their own experiences. (Buckingham, 2009). In such an approach, the researcher hands over the means of representation to the participants, allowing them to use the recording equipment. It was believed that that this process would encourage the participants to express themselves more honestly, thus aiding the researcher to capture their genuine thoughts or feelings on a particular subject. The final product is a participatory video that involves the combined observations of researchers and contributions of participants. The practice essentially destabilises power relations between researchers and their subjects; as the latter gain more autonomy, their role has switched from passive content consumers to active producers.

Harford and MacRuairc (2008) conducted research on groups of student teachers who were asked to film each other as a form of participation in a teaching tutorial. Their findings showed that peer-videoing bridged the gap between reflection and practice by fostering critical dialogue and reflective practice among participants. Scholars Calandra et al. (2009) also agree that video editing helps to cultivate reflective practice because participants in a video recording group wrote longer and more multifaceted reflections than their counterparts in a non-video recording groups.

According to Gauntlett (1999), creative pedagogy allows those whose voices are "under the radar" to participate in constructive criticism. For example, young children and adolescents are regarded as vulnerable and submissive to their parents or other adults such as teachers and leaders in the community, religion and country. Their participation in environmental issues is more passive because adults consider their opinions to be less important. Gauntlett (2004) argues that video making would be a better way to empower adolescents because it gives a voice to the voiceless. He views creative research as a way of restructuring and changing power relations between researchers and participants by giving more power to the powerless, by creating a more equal, transparent and democratic environment. He further argues that creative tasks tend to take longer to complete and lead to a more reflective process because adolescents must take time to think about what they intend to produce and how to achieve it. This time encourages a sub-conscious processing of the research issues and responses to it. It is indeed a more appealing and engaging approach compared to other traditional research methods such as interviews or questionnaires, which have pre-determined questions for the participants.

Another scholar, Cheung (2013) proposes a five-step process in her pedagogical framework for creative practice: (1) Motivation—involve children in creative tasks and encourage them to make meaningful connections with their previous learning experiences; (2) Divergent process of generating possibilities—ask children to search for ideas or possibilities through problem solving and to maximise them; (3) Convergent process of selecting ideas—children are next asked to select the best idea or solution and weigh the positive and negative aspects of each possible idea; (4) Putting an idea into practice—children are required to execute their ideas effectively and (5) Evaluation—children need to evaluate the quality of their ideas and make recommendations for improvement. The same pedagogy may be applied to adolescents at the early stage of creative learning. A key principle underpinning the deployment of creative methods is that engaging adolescents in practical tasks of their own choosing enables them to give voice to their experiences such that the quality of the final output is not compromised by their verbal competency or lack thereof (Gallacher and Gallagher, 2008; Hunleth, 2011; Tinkler, 2008; Wright et al., 2010; Lomax, 2012).

## **RESEARCH DESIGN AND METHOD**

Creative and arts-based methods have opened myriad opportunities for research with children and young people, especially in the development of dynamic and innovative methodologies for participatory research (Gillies and Robinson, 2012).

The Young People and the Environment Media Literacy project is a tailored qualitative research method (Matthews, 2007) that aims to explore the relationship between adolescents and media using creative engagement, focus groups and group discussions. It is widely believed that individuals are engaged and empowered within particular socio-economic and political contexts (Johnson, 1996). Powell, Single and Lloyd (1996: 499) defines the focus group as "a group of individuals selected and assembled by researchers to discuss and comment on, from personal experience, the topic that is the subject of the research."

This research involves a thematic analysis of a video-making process that selected adolescents participated in as part of a production project. A total of four video clips and focus groups were used as primary data sources for the research. Participant reflections were recorded during the focus groups and were later transcribed. These adolescents were able to better express themselves through creating their own media content and sharing it with their peers (Niesyto, Buckingham and Fisherkeller, 2003). This creative experience helped these adolescents to achieve a greater level of understanding about their actual feelings regarding the environment (Gauntlett, 1999).

### **Research Questions**

The key research questions that this study addresses are as follows:

1. How do adolescents depict their perceptions of the environment using media?
2. What are the implications of creative pedagogy for adolescent participation in environmental issues?

### **Location**

Like many Southeast Asian countries such as Vietnam, Malaysia's educational system upholds certain Confucianist principles (Giacchino-Baker, 2007; Woodside, 1983) that view formal education and intellectual achievement as "among the noblest human pursuits" (London, 2007).

The Confucian tradition is well known to emphasise passive learning, i.e., book learning and theoretical engagement with the subject matter, as well as examinations that favour rote memorisation and a competitive rather than collaborative approach (Hamano, 2008; Peyser, Gerard and Roegiers, 2006; Roxas, 2004; Saito and Tsukui, 2008). This type of system indoctrinates students to adhere to authorities and be submissive to decision makers. Furthermore, the system rarely exposes students to discussions in the public sphere. One consequence of this sheltering is a noticeably passive attitude towards social obligations and public responsibilities, such as environmental issues. This

research attempts to encourage adolescents to respond actively and openly to local, national and global environmental issues via a creative medium.

Two states from Malaysia, namely Pulau Pinang and Miri, Sarawak, were chosen based on their geographical and cultural similarities. Pulau Pinang is located on the north-western coast of Peninsular Malaysia (Penang State Government Official Portal, 2013) and in 2013 had a majority Chinese population of 683,400; Sarawak, as part of Borneo Island, had a Chinese population of approximately 603,300 (Department of Statistics Malaysia Official Portal, 2011). Both are urban and industrialised cities with strong educational systems, ranging between pre-school (under 7 years old), primary (7–12 years old), secondary (13–18 years old) and tertiary (19 years old and over) levels. Two universities, namely Universiti Sains Malaysia in Pulau Pinang and the Curtin University Sarawak Miri campus, were selected as bases for the four-day workshop. To aid the research process, the researchers made use of the universities' facilities and equipment. Several students were also hired as assistants.

### **Participants**

We randomly selected two secondary schools, namely Sekolah Menengah Kebangsaan (SMK) Convent Green Lane (Pulau Pinang) and Sekolah Menengah Kebangsaan (SMK) Lutong (Miri), to take part in this research. Approximately 30 secondary school students, aged 16, voluntarily participated in these workshops during the school holidays. The mid-teens age bracket was selected because adolescents of this age are capable of handling more sophisticated filming equipment and can also express their opinions and views clearly. With regard to the selection process, it was agreed that participants should be drawn from a homogenous group to ensure that all responses to the given topic would come from a similar context (Kahan, 2001). A group comprising 16-year-old secondary school students of similar age and educational background were selected.

### **The video project**

Participants were required to complete the video project in small groups and later share their work through social media. The steps outlined graphically in Figure 1 were adapted from Koc's (2011) model and are as follows: forming a pre-production focus group, identifying a theme, shooting the scenes, editing the video, holding a post-production focus group and sharing and discussing.

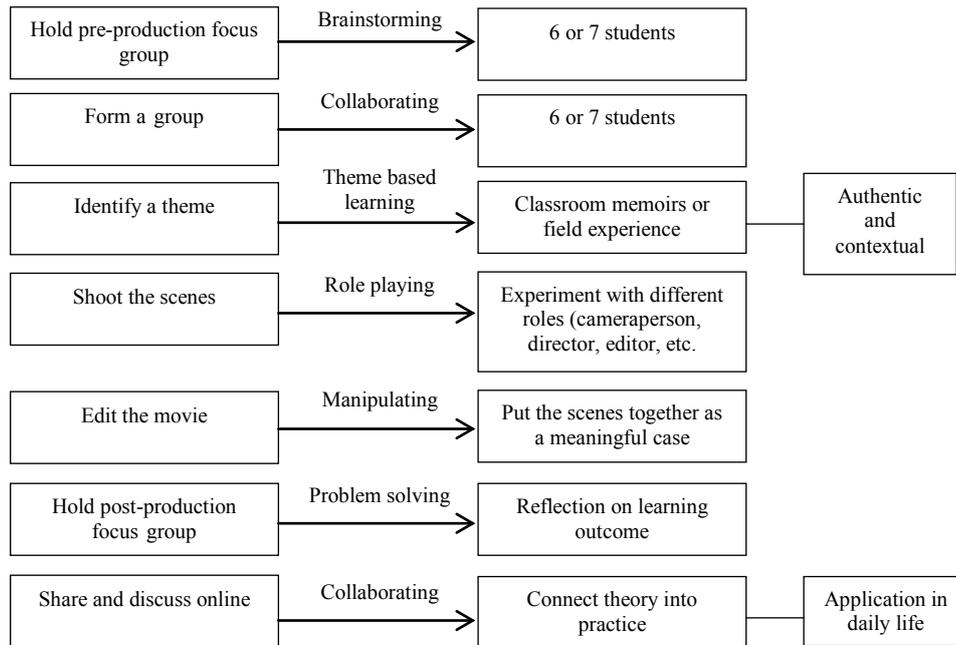


Figure 1: Outline of the video project.

*Day 1: Pre-production and focus group*

On the first day, researchers from both Pulau Pinang and Miri briefed the participants on filming techniques, types of angles, the production process, video editing and scripting. Two focus group sessions were scheduled separately for the pre- and post-production periods. Participants were divided into two groups to discuss and share their personal experience pertaining to environmental issues (Powell, Single and Lloyd, 1996). They were then divided again, this time randomly, and given the following questions to consider.

After the focus group, participants were told to create videos that depict their relationship with the environment. They drew storyboards, composed scripts, and produced and edited film content with the aim of publishing their completed work. The creative workshop consisted of four stages: (1) brainstorming, (2) script writing, (3) video filming, and (4) video editing. At the start, participants were sorted into groups of six to seven, and each member made a list of potential film ideas. From this list, they developed their raw ideas into a tangible storyline, complete with plot, characters and theme.

Table 1: Questions asked during the pre-production focus group

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**Pre-production Focus Group:**

1. What is your favourite form of media?
  2. What are the things (messages) that you have learnt from media?
  3. Which form of media provides you with the most information about environmental issues?
  4. Do you watch news or documentaries from your favourite media? If yes, which ones and why? If no, why not?
  5. According to the news and documentaries that you have seen, do you think that these programmes tell the truth and give an accurate picture of reality?
  6. "The Internet tells me everything about how other people live and their practices". Do you agree with this statement? Why?
  7. Do most of the programmes you watch focus on international or local issues?
  8. Do you ever express your opinion on or involve yourself in environmental activism? Explain.
  9. Do you think that you learn about the environment effectively through media? Please give some examples of environmental issues that you have come across?
  10. Is the media coverage of environmental issues sufficient to make you more aware of the problems faced by society today?
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*Day 2 to 3: Production*

The next day, participants were required to present their developed story and theme to the facilitators in charge of the workshops. Once the green light was given, each group then drew up their storyboard. They were given complete freedom to decide how to visually represent their ideas, from scene to scene. Next, participants started filming. The university compound was used as the setting. Basic filming equipment was supplied (a handy camera and tripod), and the participants were allowed to bring props and costumes from home. Many also made use of the facilities and materials available on location. Before they set off, each team divided up the crew roles of producer, director, cameraperson, video editor and cast members based on a consensus vote.

The process of translating ideas from an imaginative space to the visual domain was difficult and challenging. The participants were brought outside the classrooms to scout for suitable filming locations. This procedure gave rise to a paradoxical outcome: (1) on the one hand, it revealed the participants' true passion for video making; on the other hand, (2) it led many of them to disengage from the project's aim, which was to compose a video on how to preserve the quality of the environment. Participants were nervous during filming due to time pressure. Technical difficulties, such as managing the filming equipment, also posed a challenge. Some participants claimed, "We don't have sufficient resources here, we need more time and probably (need to) shoot elsewhere." The

pressure to complete the video intensified when the facilitators informed the participants that their videos would be broadcast on social media. However, despite internal friction, group members finally agreed to work together and finished their work on time.

*Day 4: Post-production and focus group*

Relief and excitement were palpable when the groups finally began the editing process. Some were disappointed with the image quality of their footage, even insisting on extra time to re-film particular scenes. After persuasion and reassurance by the facilitators, participants were advised to improvise with what they had collected. They were encouraged and determined to use their own ideas and expressions to complete the video, rather than clinging rigidly to the pre-established script. Researchers paid close attention to the development of group dynamics during this stage and how the participants increasingly built attachment and understanding within the group.

After the video editing process, participants were interviewed about what they had learnt from the workshop, the changes in their perception about media and the environment, and the distribution of their video after the workshop. Each group was interviewed for approximately one hour. The questions are listed in Table 2.

Table 2: Questions asked during the post-production focus group

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**Post-production Focus Group:**

1. What have you learnt from the workshop?
  2. How much has this project changed your perceptions/feelings about the Internet and the environment?
  3. How do you plan to contribute to your community after acquiring these video-making skills?
  4. How do you plan to use these skills to improve your life?
  5. Who is the target audience for your video and what is the message that you are trying to convey through your video?
  6. How do you plan to distribute the content to raise environmental awareness?
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**RESEARCH FINDINGS**

Over the course of the four days, the participants of the creative visual workshops produced four meaningful short videos titled (1) *One Planet Future*, (2) *You Can Make a Change: Save Water*, (3) *Environment Girl to the Rescue*, and (4) *Be Our Own Hero*. Of these, *One Planet Future* and *You Can Make a Change* were

produced in Pulau Pinang, while *Environment Girl to the Rescue* and *Be Our Own Hero* were made in Miri. Through the medium of film, the adolescents who took part in the workshops expressed how they felt about the world around them and proposed solutions to address environmental concerns. Because the sample group was homogenous in terms of age, educational level, background, social relations and culture, it was relatively safe to make inferences from a careful analysis of the visual materials. Throughout the process, researchers and facilitators were careful not to dominate or over-rule, thereby minimising their influence over the adolescents' decision making process. Participants were allowed to interact among themselves and worked together in teams on their short videos.

The themes developed focussed on several key environmental issues:

1. Recycling
2. Energy and water conservation
3. Cleaning stagnant water and clogged drains to prevent disease
4. Littering
5. Pollution

The geographic locations (Pulau Pinang and Miri) appeared to have little influence on the general ideas submitted by the adolescents. Presumably this lack was due to the wealth of information available online.

### **Descriptions of the Videos**

In *One Planet Future* by SMK Convent Green Lane, Pulau Pinang (Group 1), the story began with a glimpse of a teenager who had contracted a serious dengue fever. The next scene was a flashback to the past, showing how careless littering had led to the accumulation of aluminium cans and rubbish in a drain. Over time, due to public negligence, the drain was clogged, and then a heavy rainfall occurred. The next scene re-enacted the same scenario, but this time, correct action was taken: some teenagers were seen collecting rubbish and throwing it away into a dustbin in the garden, washing plant pots to ensure that there was no stagnant water and cleaning the drain. The story ended with the airing of the slogan "everyone plays a role" and a demonstration of how to correctly dispose of rubbish into the appropriate recycling bins.



Illustration 1: Student production on the importance of maintaining environmental cleanliness.

The other short video titled *You Can Make a Change: Save Water* by SMK Convent Green Lane, Pulau Pinang (Group 2), also highlighted the negative effects of public disregard for environmental awareness and water and energy conservation. A female student was first seen talking on the phone. Evidently distracted by her conversation, she left the tap open. She then threw a used tissue into the basin. Next, the scene changed to a group of students watering plants. Like the girl, they carelessly left the hose tap open after they were done. In contrast, the second half of the video showcased several steps that people could take to care for the environment such as turning off the tap after use, watering plants with the right apparatus (a bucket instead of a short hose) and cleaning up any rubbish or litter. Emphasising individual responsibility and accountability, the video ended with a slogan "You can make a change".



Illustration 2: Students of SMK Convent Green Lane demonstrating the dos and don'ts of human behaviour.

Students from SMK Lutong, Miri (Group 1), incorporated the idea of the "hero" in their work because each individual is capable of making a significant change to the world. In *Be Our Own Hero*, the opening scene depicted two students jogging on a walkway. One student fell down after tripping over a discarded soda can. The next scenes then showed how irresponsible pollution had serious consequences for the environment and for human lives. A presenter

appeared and urged the audience to work together and change the world. The slogan was "Save our earth, (it) starts from you and it's never too late to change".



Illustration 3: Students of SMK Lutong delivering suggestions on how to make the earth a cleaner and safer place to stay.

The last video, titled *Environment Girl to the Rescue*, adopted the story of a heroine and a villain. The lead actor, a schoolboy, was largely ignorant of the importance of environmental cleanliness and water and energy conservation. While playing catch-me-if-you-can with his friend, he littered carelessly, left the classroom air-conditioner switched on and left the tap in the toilet running. Alerted to his misdeeds, the female heroine, Environment Girl, materialised and "chased" him. When caught, the boy knelt down and begged for forgiveness. The heroine then transported him to an imagined future, where earth was riddled with trash, pollution, disease and death. The villain repented and promised to change for the better. The video ended with the superheroine saying "Sav(ing) the environment is our responsibility. Think before you act".



Illustration 4: A student enacts the role of an environmental heroine who reprimands a misbehaving schoolboy.

### Data Analysis

Three themes have been chosen to represent the data collected from the focus group interviews and video analysis. The themes, which were adapted from Koc's model (2011), are as follows: (1) motivational outcomes, (2) cognitive impacts, and (3) construction of a new identity as an active media consumer (Table 3).

Table 3: Thematic analysis of participants' reflections on environmental issues and creative pedagogy

Themes	Descriptions
Motivational outcome	Sharing among peers. Attracting attention. Desire to produce another video. Increased conversations and participation in environment-related activities at home and in school.
Cognitive impact	Comprehension of environmental issues. Understanding of media content. Visualisation of content. Interpreting images.
Construction of a new identity as an active media consumer	Creating and distributing media content about the environment. Confidence in voicing out opinions. Building social networks.

In the following section, the participants are quoted verbatim as they reflect on their perceptions of the environment and the media.

**Motivational outcomes**

Participants agreed that the video-making workshops were interesting because they were more interactive and engaging than typical academic classes. The motivation for joining these workshops was largely individual interest in video making; a majority had voluntarily registered themselves, while three were persuaded to do so by their parents after the invitations were sent out to the respective schools.

They (parent) want me to learn how to produce video. (Miri, Male 2)

I think I do more useful things than I do at home, like spending 24 hours on the Internet or Tumblr, and she (mum) said it's better if you stay here and learn something... (Miri, Female 4)

Many participants were excited to see their final video product. Some stated that they were motivated to produce another video so that they could share it with their family and friends, either face-to-face or through the Internet, for example on social media (i.e., Facebook) or blogs (i.e., Tumblr). These participants went on to explain that they would choose more specific topics, such

as natural disasters (i.e., tsunamis) or water pollution. Several mentioned that being an actor or producer in the short video had piqued their interest in learning more about filming techniques. One enthused about the attention that could be gained from uploading this type of video to social media, while another commented that video making was an important skill in the media industry. Both aspects were important motivating factors for participants in terms of acquiring filming skills.

I want to make a video, but I want to make it really, really attractive so, hopefully, all youngsters and the whole world will watch. I hope they appreciate it...I will choose global warming. (Pulau Pinang, Female 4)

Presentation. Maybe I want to be a journalist. Who knows? Journalism; they need it. (Pulau Pinang, Female 2)

Participants registered full attendance throughout the four-day workshop and punctuality was satisfactory. After the workshop concluded, participants agreed that they would participate more in environmental activities either at home or in school.

Like you guys organise the workshops. So maybe I can join, so you know, kind of like talk about the environment and all these; then I should practice recycling, which I do. Don't simply throw rubbish; think before you throw. (Miri, Female 10)

Yeah. For example, if they say the campaign is to plant more trees, bring your own trees to plant, so I bring my own trees to plant. If they hold a blog or something about knowledge, about protecting the environment, maybe I will give some of my knowledge, contribute. That's all, what else? (Pulau Pinang, Female 1)

### **Cognitive impacts**

A significant outcome of this project is that participants were encouraged to be more aware of environmental issues. By the end of the workshop, many perceived the environment to be an essential part of their daily life and were conscious of the threats posed by human greed and ignorance. They believed that misconduct and negligence would eventually destroy the environment. However, though awareness was high, their knowledge of the deeper issues surrounding environmental crises remained shallow and simplistic. Many were unfamiliar

with the "different degree(s) and types" of sustainability problems, although they managed to relate them to greenery, health and human activities.

Because for me, the environment has green plants, and the sky is a blue colour. (Miri, Female 2)

To me, the environment is quite important because if there are no trees there, oxygen won't be here. Then, more carbon dioxide, which actually affects us... So, I think the environment is very important. (Pulau Pinang, Female 10)

When I think of the environment, I automatically have health issues inside my head. Because, right, in our environment in Malaysia, there is more pollution, destruction and many other problems. I was thinking about how it affects us in our health and what happens to our population and the next generation. (Miri, Female 3)

Participants managed to name a few categories of pollution and their impact on the environment but failed to situate these issues in the various social, political, economic and legal contexts. They thought that greed was the primary cause of all evil. Some explained as follows:

I think about the environment; I will think of the destruction done by humans such as deforestation and the rising sea level. (Miri, Male 1)

Humans just want to get what they want. They don't think about after they throw the rubbish. (Miri, Female 1)

In their videos, participants highlighted irresponsible human behaviour and suggested creative ways to preserve the environment, including using the right apparatus and even using "supernatural" powers (i.e., environmental girl). There was cognitive engagement through brainstorming ideas in teams, developing the storyboard and planning for camera frames and video editing. Participants were engaged in a higher order of thinking as they were encouraged to craft meaning from images, visualise content, reason and analyse during the video-making process.

### **New identity as active media consumers**

In the pre-production stage, when participants were asked who was responsible for caring for the environment, they cited public authorities such as school, the government and society in general.

Yeah, they (young people) can join more environmental campaigns and maybe organise some, and the state government has to organise more interesting, fun campaigns, not the boring, boring one where you go to study all this stuff. (Pulau Pinang, Female 8)

We can grow trees like the government did; replant the forest. (Miri, Female 2)

When they were further questioned about the role of the media in providing access to information, many responded that they learned about the environment from the Internet, television, radio, books and even newspaper comic strips, while some were exposed to environmental activities at school and in textbooks. Two commented as follows:

I remember a theme song that I found on YouTube. It's about the environment of natural disasters. It says that humans were greedy and cause the natural disasters. (Miri, Male 2)

...newspaper comic, there is one, "It's a Durian Life"...in Star paper every day. (Pulau Pinang, Female 2)

From observation to focus groups, the findings suggested that the adolescents' response to environmental issues was dependent on their knowledge and usage of the medium. When the knowledge of video making was high, they found it easier to respond to environmental issues, thus the workshop was designed to give participants more autonomy to determine the outcome of their video production. Each was encouraged to assume an active media role (i.e., producer, director, actor/actress, editor) so that they could comprehend how it felt like to be a content producer and how to look at environmental issues from that perspective. Participants explained that it was easier to use a camcorder to express their ideas because they could capture any image that caught their attention, and it was more intuitive because a picture tells a better story than words. The digital media allowed them to capture images randomly, without the restriction of putting them in linear order at the filming stage, which could be performed later during editing. Participants felt that it was easier to arrange the puzzle after they had gathered all of the pieces. This re-arrangement of images could be easily realised during editing using current digital technology. The function of replay, forward and pause gave participants flexibility and freedom in filming and allowed them to follow their intuitive leads.

Participants responded that it was easier for them to tell their peers about the environment when they could make the message visible and tangible. The ability to "show" the consequences of environmental pollution had a greater

impact on the audience than telling them in words because showing was essentially about making scenes vivid, which helped the audience to visualise and understand the scenes better.

...And we need to do a video about friendship. So we act. She makes a video and finds the actress and we discuss the plan and... so on. Then, we post it on Facebook. (Pulau Pinang, Female 2)

When asked about how new media technologies had changed their perceptions of the environment, participants showed awareness that there was a wealth of information on the Internet that could be easily accessed via search engines and browsers. One student added,

Go green... Use green technology...the smart car. (Miri, Female 6)

Moreover, the rise of sophisticated social networking tools in social media has greatly enriched the user experience. Participants were not just allowed to decide upon the content of their creative artefacts, but were also given the freedom to choose the online distribution platform through which they would upload and share their content. This flexibility allowed them to interact with other adolescents and the general public on topics and issues related to the environment through chat rooms, message boards, picture/video sharing, blogs and emails.

It (is) on Facebook. We can...share the link. (Miri, Female 1)

This action-oriented activity was highly interactive and exposed these adolescents to participation in a democratic society. We observed that the participants were inclined to feel connected to their surrounding community when they were given a voice in important issues such as environmental concerns. Some of them mentioned that prior to attending the workshop, they thought that their only responsibility was to study and that they were too young and vulnerable to make a change.

Maybe now we focus on our study first. Study comes first, environment later. (Pulau Pinang, Female 2)

The convenience of new media technology and the practical training imparted has encouraged these adolescents to proactively address environmental issues. Through independent learning and film making, the participants developed enthusiasm for responding to local, national and international environmental issues. Overall, the experience reminded them of their role as

citizens of the country and the significance of their participation in environmental issues, either at home, at school or through social media.

## **SUGGESTIONS AND LIMITATIONS**

Mirzoeff (1999) defines visual culture as not being primarily dependent on images in and of themselves; rather, it pictures or visualises existence. Drawing and video making would appear to be the most direct pathway for mapping imagery from the adolescent mind to the realm of analysable research material. In other words, video making is a practice in creative expression, one that requires a certain level of expertise because it is not easy to visualise an abstract concept. Jenkins (2007) agrees that the emergence of new media has allowed adolescents to manipulate media by reworking its content to serve personal and collective interests. In this context, adolescents have gradually learnt to assume the role of active content producers and consumers endowed with critical thinking skills. Access to various communication channels has enabled youth to have a free voice, one that is capable of challenging the status quo established by the dominant authorities.

For future research purposes, it may be fruitful to ask participants to individually produce a video, instead of working as a cohort, to encourage more diversity in ideas. Furthermore, participants should be allowed to film their videos beyond the confines of the research workplace and also to choose their own video-making forms and styles. Although the participants in this study were few in number, the fact that all participants displayed great enthusiasm for video making, despite coming from different geographical locations, proves that video making is indeed effective for creating environmental awareness among teenagers. One suggestion that may be useful in preparing for the next round of research would be to obtain a larger group of participants with diversified demographic variables such as age, ethnicity, education level, background and geography. The use of video making and other forms of new media to increase adolescent participation in environmental issues is something that the government and local industries should investigate. Collaborating with youth to produce media content would undoubtedly help create greater awareness of the importance of maintaining a sustainable environment, particularly in the case of a developing country such as Malaysia. Moreover, as has been shown, most adolescents are eager to showcase their talents by distributing their work through new media technologies. This mass distribution would help create a direct impact among peers and the general public. Overall, the outcome of this project has convinced our research team that the new media approach is effective in optimising adolescent creativity and may be further improved when combined with other creative forms, such as the interview method practised by Gauntlett (2004) and Buckingham (2009). In addition, creativity may also be optimised

when the subjects are placed in a democratic environment that allows them to express themselves freely (Buckingham, 2009). Buckingham emphasised that the "creative visual" approach is not only a means of expression but also imbued with the attributes of democracy.

This research would be more comprehensive if participants were given a longer time span to reflect on their learning experiences. Although strict time limits increased the rate of performance during the workshop, the quality of work produced was indirectly affected (Kelly and Karau, 1993). Under pressure to complete their projects on time, participants largely focussed on the immediate available information instead of conducting more detailed research. This constraint led them to minimise the severity of certain issues and to generate easy problem-solving strategies, at times to the point of oversimplification. Most of them related environmental awareness to cleanliness and water and energy conservation measures in their short videos. Despite these limitations, creative visual research holds great potential as a field worth exploring because it helps both the government and local industries to reach out to younger audiences by building a participatory culture, i.e., an environment of creating and sharing, where there is no separation between producers and audiences. As shown, when youth are given the autonomy to freely communicate their thoughts, opinions and views, the likelihood of these individuals actively involving themselves in environmental issues tends to increase.

## **CONCLUSION**

This research has studied how a different pedagogical approach influences adolescents to produce descriptions of their views, opinions or responses in both visual and audio forms. Participants were invited to produce their own perceptions of environmental issues using creative and non-conventional methods in a four-day reflective and collaborative process. Through the training received, adolescents learnt to recognise their role and responsibilities as proactive citizens and to engage in finding solutions. As a creative hands-on approach, video making helps to bridge the gap between theory and practice in media research. It could be embedded in the school syllabus and widely used by media educators ranging through the primary, secondary and even tertiary levels. In a knowledge-suffused, globalised world, it is necessary to equip adolescents to express themselves and to understand others, as well as to read and understand media content effectively so that they can harness these skills to spread important messages and participate in social issues. The emergence of new media technologies and media convergence in the current age has made information more accessible and transparent; it is therefore crucial for adolescents to understand that they need not be passive data recipients. Rather, they must be

encouraged to act as empowered and enlightened citizens, capable of using such channels to create new knowledge and to challenge the status quo.

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