

THE EDUCATION UNIVERSITY OF HONG KONG

Final Year Project Proposal entitled

*Explore the Purpose of a School Showcasing Student Digital Arts
in the School Public Space*

Submitted by

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Declaration

I, Chan Wing Tung declare that this research report (Explore the Purpose of a School Showcasing Student Digital Arts in the School Public Space) represents my own work under the supervision of Dr. Wong So Lan and that it has not been submitted previously for examination to any tertiary institution.

Chan Wing Tung
17 April 2022

Abstract

A good learning environment brings many benefits to students' personal development, performance and learning atmosphere (蔡文豐和王玲玲, 2012; Hanrahan, 1998; Susanti et al., 2020). Although schools in Hong Kong always showcase students' artworks, they have suffered from the traditional method of showcasing. According to the learning environment and the showcasing of digital arts at schools for visual arts subjects in Hong Kong, limited relevant research is found. After visiting a school that showcased students' works in the form of digital arts, the researcher was fascinated to explore the purpose and factors of the school showcasing student digital arts in the school public space.

This case study used qualitative research for investigating the teachers' perspectives and methods of showcasing students' digital arts at school. As the school is the research subject, semi-structured interviews were designed for two visual arts teachers at this school. Referring to the result of findings, the purposes of the showcasing are mainly for enhancing students' arts learning and creating a better learning environment. With the support from schools and colleagues, teachers achieved a great success in it. The research identified that teachers perform a significant role in organizing the showcasing. Teachers need to be a proactive, passionate, responsive life-long learner. Although the school in this case study faced many difficulties in implementation, they had a remarkable achievement

in showcasing students' digital arts at school. By providing a successful reference, the researcher hopes that it could encourage visual arts teachers to make changes in the traditional showcase, moreover, create a digital arts learning environment and cyber atmosphere for the school. It is of paramount importance to enhance students' learning motivation for arts and encourage active participation in creative activities.

Keywords: School Showcasing, Digital Arts and School Public Space

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Chapter 1 Introduction

1.1 Background

Learning environments are important in helping students learn effectively. Susanti et al., (2020) stated that students learning in a high-quality environment would have a good attitude toward learning and produce a positive atmosphere. A good learning environment brings many benefits to students' personal development, performance and learning atmosphere (蔡文豐和王玲玲, 2012; Hanrahan, 1998; Susanti et al., 2020). Table 1-1 below shows that all three studies indicate that a conducive learning environment brings many benefits, such as students' learning motivation being highly increased if the learning environment is well-developed. Due to a good learning environment, students' cognitive and learning autonomy are also developed and can learn actively. The researcher visited a primary school and saw many large-scale students' works and digital arts on display, which attracted the attention of the researcher. The researcher is interested in exploring why teachers display student work in this way, especially in large-scale digital art forms.

Table 1-1 Benefits of Conducive Learning Environment

		Hanrahan (1998)	蔡文豐和王玲玲(2012)	Susanti et al., (2020)
Personal Development	Leadership attitudes			✓
	Self-regulation	✓		
	Cognitive engagement	✓	✓	
	Time management		✓	
Personal Performance	Improve learning outcomes		✓	✓
	Learning autonomy	✓		✓
	Active participation	✓		✓
	Increase motivation	✓	✓	✓
Learning Atmosphere	Arouse attractiveness			✓
	Positive atmosphere		✓	✓
	Interaction with teachers		✓	

(Hanrahan, 1998; 蔡文豐和王玲玲, 2012; Susanti, Damris, Maison, & Tanti, 2020)

With a new generation, the trend of art at the moment is more digital and electronic.

Popper (2007) found that contemporary virtual art is refined for the digital arts of the late twentieth century. Nowadays, art galleries and museums are not only exhibiting traditional paintings, photographs or sculptures. Electronic and digital installations are strongly promoted and praised. From my personal experience of visiting a primary school, it showcased students' artwork by digital (see Figure 1-1). Using simple electrical equipment, such as computers and projectors, all the students' artwork can be shown as an animation. From my experience of visiting a digital art exhibition in Hong Kong (see Figure 1-2), to compare with the method of showcasing, I am interested in the display of digital arts and want to know the reason why the school showcases students' works in the form of digital arts.

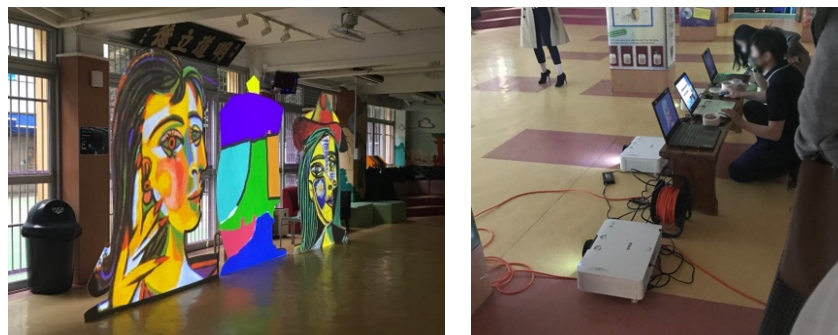


Figure 1-1(a) (b) Site Visit of the Primary School

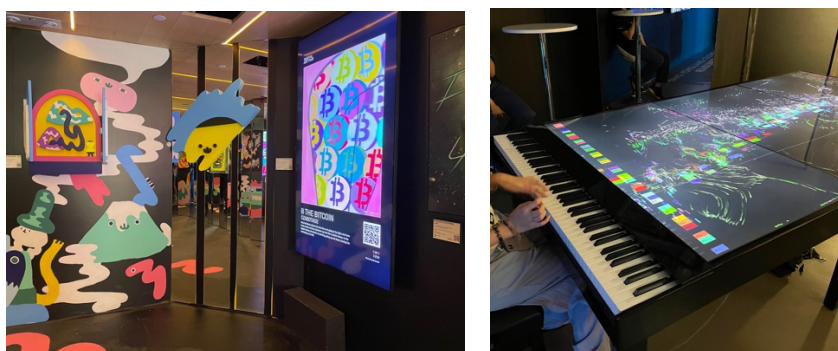


Figure 1-2(a) (b) Personal Experience of Digital Exhibition in Hong Kong

Understanding why and how the school think of using digital arts to showcase students' works in school public spaces and therefore will become the focus of this research.

1.2 Objectives

蘇淑芝和徐于棋(2018) suggested that the learning environment and supports are not enough in Hong Kong visual arts education. Traditional showcasing is usually used for visual arts subjects which is displaying the original students' artworks at school. However, since there is a new showcasing method for students' artwork in a school environment, the researcher would like to know and learn the methods of using digital arts for showcasing

students' artwork. In addition, the research results can enable pre-service and in-service teachers to master new methods of showcasing students' works, so as to enhance students' learning motivation and encourage students to actively participate in creative activities. At the same time, it can also create a digital arts learning environment and cyber atmosphere for the school.

Since there is less relevant research on the learning environment and the showcasing of digital arts at schools for visual arts subjects in Hong Kong. I hope this study will be a reference for pre-service teachers and in-service teachers to understand the importance of showcasing and recognize the implementation of showcasing artworks by digital arts in a school learning environment. Moreover, by the research, teachers can reflect on themselves and make a great effort to cultivate students' artistic development. It is for encouraging visual arts teachers to create an innovative and effective visual learning environment for students to learn.

1.3 Research Questions

The main focus of this study is to investigate why visual arts teachers showcase students' artworks by digital arts in a school environment and how visual arts teachers showcase students' digital arts in school. Moreover, the relationship between the school-

based curriculum design and the implementation of digital arts showcases for students will be discussed.

The research questions are as follows:

1. Why do visual arts teachers showcase students' digital artworks in the school environment?
2. How do visual arts teachers design, implement and showcase students' digital arts? What factors and capabilities need to be considered?

1.4 Significance and Contributions

There are not many studies relevant to the current situation of schools' learning environment and showcasing of visual arts artworks at schools in Hong Kong. The Hong Kong Education Bureau (2017) stated that under experiential learning, students explore the relationship with the environment of visual arts. It mentioned the environment indirectly.

With the anticipation of enhancing the students learn visual arts, this study can be a reference for visual arts teachers to review the school environment and redesign or create the showcasing digital arts. Moreover, it can provide basic data for teachers to understand the reasons and implement showcasing their artworks at school by digital arts which assists teachers to design an innovative and effective school visual environment.

Chapter 2 Literature Review

林曼麗(2001) stated that arts education encourages students to interact with the environment and build up their environment perception so that they would learn actively in visual arts (as cited in 胡郁珮, 2010). There is a strong linkage between arts and environment which prompts the use of the school environment for visual arts learning. For showcasing students' artwork at school, the culture of the school would be created. Purkey and Smith (1982) found that an effective school is distinguished by its culture, also the culture channels students into successful learning (as cited in Frymier and Joekel, 2004). Why do schools display students' works, and what is the purpose and outcome of the display? Why do some schools display students' digital arts, and what are the characteristics of digital arts? It will be discussed below.

2.1 The Showcase of Students' Artworks

According to Bandura (1997), the "student-led" approaches affected importantly to their engagement and performance in learning (as cited in Killeen et al., 2003). Since students create their artworks in visual arts lessons, teachers provide an opportunity for showcasing students' artworks in a school environment which enhances learning effectiveness. Moreover, for cultivating their self-learning capabilities and self-initiated learning attitudes, displays of students' artworks are needed for peer appreciation and criticism (The Hong Kong Education Bureau, 2007). With a close relationship between

visual arts learning and showcasing of artworks, students' works are highly recommended for display which brings many benefits. To explore why showcasing is used for learning, especially artworks display, the objectives and outcomes of showcasing will be discussed.

2.1.1 The Objectives of Showcasing

For maximizing the benefits of learning and teaching, teachers are willing to display or exhibit students' artworks in a school environment. Also, students are invited to design their showcase themselves for decorating school. D'Acquisto (2006) stated that planning an exhibition by students is comprehensive learning for developing their design, communication, problem-solving and interpersonal skills. Moreover, Hart (1987) suggested by developing a sense of involvement and social responsibility, students can participate in designing a space (as cited in Killeen et al., 2003). In the research of Qiu, Xiao and Jiang (2020), the experience of organizing an online art exhibition for displaying students' artworks can motivate them to develop their professional skills, such as communication skills by cooperation. For the objectives of showcasing students' artworks, besides the beautification of schools, the competence and skills in visual arts of students can also be developed greatly.

2.1.2 The Outcome of Showcasing

According to D'Acquisto (2006)'s research, displaying students' artwork not only benefit students but also assists teachers to teach and develop. As a learner, teachers

promote visual arts through the school visual environment, the process of planning and guiding enhances teachers' development such as deepening the understanding of subject knowledge and collaboration with teachers. As a result, it becomes the driving force for school improvement. Besides teachers, students are the main beneficiary. Moreover, Eckhoff (2019) pointed out that displaying students' work in school is significant for shaping the viewers' understanding of the culture of school and students. Hence, authentic showcasing enhances students' recognition of their sense of belonging and value in school public spaces.

Sakr (2017) mentioned that making artworks and displays is supportive for developing students' creativity, ownership and interactions. Some visual arts teachers presented with the Award for Teaching Excellence provided exhibitions and showcases of students' artworks at school for arousing students' interests in visual arts (The Hong Kong Education Bureau, 2006; 2016). Regular showcasing encourages students to create and foster art appreciation and criticism.

2.2 Digital Arts

余瓊宜(2011) stated that digital arts becomes the new category of art history because of the well-developed digital computer technology. As digital arts is starting to be developed, Sweeny (2010) stated that artists and art educators offer insight into using a

digital design which is for facilitate active learning, critical thinking and creativity. Sakr (2017) also mentioned that students are motivated to question and challenge through digital arts-making, moreover, the showcasing assists in developing students' collaborative creativity. By using digital arts for showcasing students' artwork in a school learning environment, the display method of digital arts is very significant for increasing students' effectiveness in visual arts learning.

2.2.1 Characteristics of Digital Arts

林珮淳和吳佩芬(2002) mentioned the key concept of digital arts is the creation is made through digitization, such as digital images, sound, systems and information. Moreover, there would be interactive, variable and reproducible. 陳麗秋(2001) also stated that digital art can be divided into two methods. The methods are using digitization during creation and traditional art creation but use digitization to be processing (as cited in 林珮淳 and 吳佩芬, 2002). 范銀霞(2004) suggested the interaction between digital arts and the audience is important. Furthermore, from the research by 黃明正 and 蔡登傳(2005), they summarized the definition of digital arts from different scholars which are listed in table 2-2. There are some foreign scholars who also definite digital arts. Rani (2018) pointed out mass production and digital media are used by creating digital arts. Bautista (2013) stated that digital arts is known as new media art, moreover, it showed cooperation

between arts and technology. Both scholars indicated digital media is a key component of digital arts.

In table 2-2, scholars pointed out that the most important elements of digital arts are digitization for creating and interacting with the audience. Only two of them suggested innovation, experimental and communication for identifying digital arts.

Table 2-1 The Characteristics of Digital Arts

	張恬君 (2000)	葉郁田 (2000)	陳麗秋 (2001)	林珮淳和 吳佩芬 (2002)	范銀霞 (2004)	陳瑩 (2004)	林珮淳和 莊浩志 (2004)	Bautista (2013)	Rani (2018)
Use digitization for create	✓	✓	✓	✓		✓	✓	✓	✓
Interaction with audience	✓	✓			✓		✓		
Innovation					✓				
Experimental					✓				
Communication				✓					

(林珮淳和吳佩芬, 2002; 范銀霞, 2004; 黃明正和蔡登傳, 2005; Bautista, 2013 and Rani, 2018)

2.2.2 The Showcase of Digital Arts

Paul (2015) stated that digital arts was established by the end of the century when art museums and galleries started to collect and exhibit digital works. At present, lots of artists explored digital arts and created numerous artworks with new technology or software. However, the showcase of digital arts is diverse, such as using digital images and 3D models with digital music. Colson (2007) pointed out digital artists would use powerful

software, the Internet and interactive technology for making digital arts. Furthermore, Marner (2013) mentioned digital media in art education requires more flexibility to teach, moreover, digital media acquired powerful tools for the production, presentation and communication of art. Since digital arts need lots of techniques for creation, learners can understand the production of digital arts, such as the used resources and the process of making. Having a significant difference in presentation between traditional and digital artworks provided more opportunities for the audience to communicate and interact.

Emilie (2021) mentioned Digital Art Fair Asia, an exhibition held in Hong Kong in 2021, that exhibited many digital contemporary arts that inspired a new generation of showcasing artworks by technology (see Figure 2-1). The artworks are divided into five parts, immersive, prestige, pioneer, new media and virtual reality art experience zone. The exhibition showed many digital arts productions. Digital arts is not only presented through digital images, it can also be a performance with different digital visual elements, such as augmented reality and virtual reality. With digital images and sounds, digital arts become more diverse. For Hong Kong, digital arts is going to be developed. Furthermore, Anadol (2020) introduced Refik Anadol who is a media artist interested in machine intelligence and digital arts. His works showed strong creativity significantly by combining digital and architecture. The studio used 42 large-scale laser projectors with 50K visual resolution,

and also 1.2M luminance (see Figure 2-2). In conclusion, digital arts can be presented with different art elements. Also, professional equipment is needed for showcasing.



Figure 2-1 Digital Art Fair Asia



Figure 2-2 Refik Anadol's digital art

2.3 Conclusion

To summarize the above discussion, the following research framework is developed by the researcher (see Figure 2-3) which helps to analyze the purpose and implementation of showcasing students' digital arts in a school public space. Moreover, it inspired the researcher to understand the expectations and factors of using digital arts to showcase students' work in school.

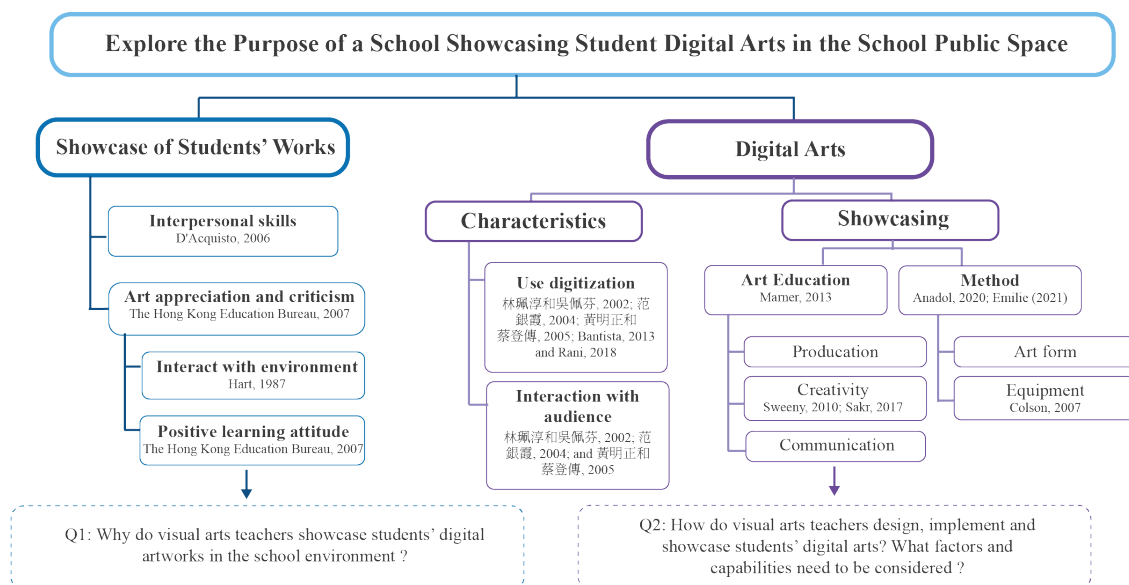


Figure 2-3 Research Framework

Responding to the framework, a conducive school visual environment can affect students' learning effectiveness. Since teachers' objectives and design of showcase is an important factors, the research would analyze visual arts teachers' thoughts and designs of showcasing by digital arts, moreover, explore the implementation of showcasing students' visual arts artworks in a school learning environment. Currently, digital arts is created by several professional types of equipment, the materials and the making process would also be investigated.

Chapter 3 Methodology

The study aims at analyzing why visual arts teachers showcase students' artworks by digital arts in a school learning environment and investigating how they implement visual arts subjects at school. A qualitative research approach is used to explore teacher views and design on showcasing by digital arts and analyze the implementation of showcasing for visual arts. Fossey et al., (2002) mentioned qualitative research is for understanding the meaning and experience of human actions and social behaviors. Qualitative research is suitable for this research which is targeted to explore deeply through the interviews. The reasons and implementation for using digital arts to showcase students' works in school will be greatly investigated.

On the other hand, Scholz and Tietje (2002) stated that a case study is about at least partially personal observation for understanding the situation or problems of the real-life context. Also, single cases could be unique and salient. Crowe et al., (2011) also mentioned an in-depth understanding of the issue and it used for explaining and exploring actions that the participants occur. Tellis (1997) found that the interviews and observation of case study research are insightful for providing perceived inference. Moreover, Yin (2003) stated that the rationale of a single case is for representing a unique case. Since the researcher is intrigued by the surprising showcasing of a visited primary school, a single case study will be essential for

understanding profoundly why and how visual arts teachers use digital arts for showcasing students' works. Based on the traditional method of showcasing artworks, this case study is used to uncover a new method and prove its effectiveness. Through the invitation of the school, visual arts teachers from a primary school in Hong Kong, a thorough comprehension of research questions will be explored.

3.1 Research Method

Wright (2007) stated that qualitative research is to find out the targeted groups or individuals' opinions, attitudes, behaviors and motivations. Mertens and Hesse-Biber (2012) also mentioned that the use of triangulation (see Figure 3-1) in qualitative research helps researchers to discuss the focuses of the research in-depth, for the example, it helps to explore the purpose and methods of visual arts teachers in showcasing digital arts in school public spaces.

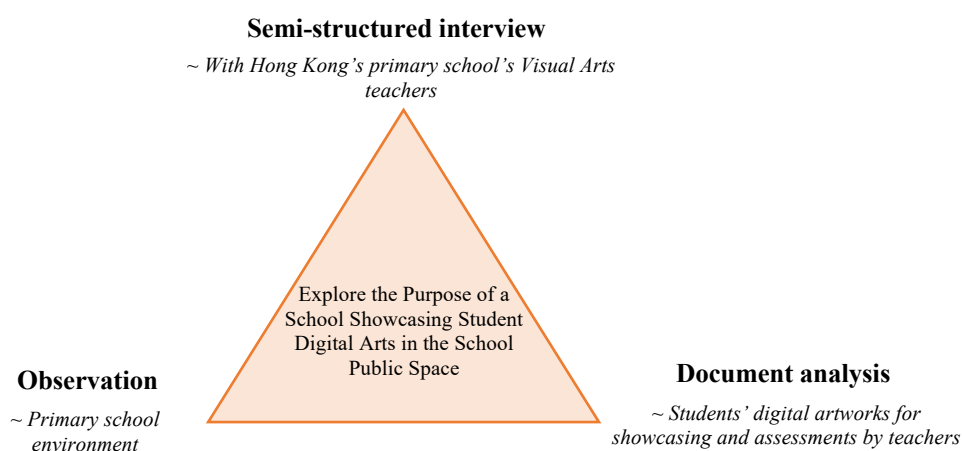


Figure 3-1 Triangulation in Qualitative Research

3.1.1 Interview

According to Schatz (2012), the semi-structured interview is for an in-depth investigation of a particular topic with detailed information. Since the researcher wants to know the reasons and objectives of showcasing digital arts in a school visual environment, two visual arts teachers with excellent performance in presenting the showcasing are invited for this interview. It encourages teachers to explain the implementation of showcasing in detail, such as how teachers cooperate with other colleagues. Through in-depth interviews with teachers separately, the researcher can receive a profound understanding of the interviewees' answers. Based on the research questions, interview questions are set for the principal and visual arts teachers.

1. How many years have you taught Visual Art subject? (Research Question 1 & 2)
2. How many years have you taught Visual Art subject in this school? (Research Question 1 & 2)
3. How would you use to describe the school learning environment (visual elements)? Why? (Research Question 1)
4. What are the purposes of showing students' digital artworks in the school environment? (Research Question 1)
5. What factors motivate the use of digital art to showcase students' artworks in the school environment? (Research Question 1)

6. What factors need to be considered when showcasing digital arts in school public spaces? (Research Question 2)
7. What software and hardware resources does the school need? (Research Question 2)
8. How do students react to showcasing their digital art in school public spaces? (Research Question 1)
9. Why do students have these reactions? Is it what you expected? (Research Question 1)
10. Do you have any future plans in developing school learning environment by visual elements, such as digital? (Research Question 2)

3.1.2 Observation

By using observation in the semi-structured interviews, the researcher can observe teachers' emotions and performance when they are talking about the showcasing at school. It helps the researcher to have a deeper understanding of their thoughts and perspectives for collecting thorough data in this study. Furthermore, for observing the school environment, the researcher can observe from the video which is provided by the interviewees.

3.1.3 Document

For increasing reliability and validity in qualitative research, documents are essential since Yanow (2007) stated that documents corroborate observationally and interview data which requires before conducting interviews. The researcher collected a document of students' artworks which includes digital arts and performances. It is important because it shows their quality and application of them in a school environment. Moreover, the collected video presented the school environment and the exploration of making digital color mapping by one of the visual art teachers. Through the video, the researcher can analyze the equipment and method during the process of making color mapping. Therefore, as a reference, collected documents will be used for interviews to ensure perfection.

3.2 Research Subject

The research is a case study that focuses on a primary school which showcased many large-scale students' works and digital arts on display in the school environment. The researcher had an intensive study of the school for understanding their objectives and implementation of showcasing students' digital arts. To have an in-depth understanding, the researcher had interviews with two visual arts teachers from the primary school. They are responsible for designing digital arts for students to learn and the showcase of students' visual arts artworks in the school environment. (see Table 3-1).

Table 3-1 Research Subject Data (Teachers)

Respondent	Code	Gender	Years of Teaching (Visual Arts)	Title	Face-to-face Interview Date
Teacher 1	T1	F	> 4 years (Primary school which used digital arts for showcasing students' visual arts artworks)	➤ Visual arts Subject Teacher ➤ General Studies Subject Teacher	08 Feb 2022
Teacher 2	T2	M	> 30 years (Primary school which used digital arts for showcasing students' visual arts artworks)	➤ Visual arts Subject Panel Head ➤ Activities Leader ➤ In Charge of School Transport	19 Feb 2022

3.3 Research Schedule

This study is well-planned by determining the proposal, discussion and applications in the first stage. Moreover, for research, the invitation of interviewees and analysis of data would be done after finalizing research questions. The study would conclude from the evidence by completing the research report (see Table 3-2 for details).

Table 3-2 Research Schedule

Date	Implementation Matter
13 May 2021	➤ Submission of project proposal
Jan to mid - Oct 2021	➤ Meetings with supervisor for discussion
15 Nov 2021	➤ Submit the full research proposal and the ethical review application
Nov to Dec 2021	➤ Design research questions
Feb 2022	➤ Interview with the interviewees
Feb to mid - March 2022	➤ Data analysis
14 Mar 2022	➤ Honours project online presentation
18 Mar - 18 April 2022	➤ Refine project report
18 April 2022	➤ Honours project report submission

3.4 Research Limitation

Due to the time constraints and pandemic, the format of the interview with teachers changed to be online interviews by Zoom. For the school observation, teachers mentioned that digital artworks are showcased for one to two days only. There is no opportunity to observe the real situation of showcasing this time, though the researcher could visit the school. Online observation is used. Also, because of the confidential information of primary school, the photos and information are not represented comprehensively. Therefore, the results of this research can only be a reference.

Chapter 4 Findings and Analysis

The study focuses on a primary school that has an outstanding performance in showcasing large-scale digital artworks and students' digital arts. It aims at exploring the purpose of the visual arts teachers to showcase students' digital artworks in the school environment, moreover, how do visual arts teachers design, implement and showcase students' digital arts. There are two sections. The detailed analysis of interviews and the documents provided by visual arts teachers are classified according to the two research questions.

4.1 Purposes in Showcasing Students' Digital Artworks at School

According to the benefits of a good learning environment in the literature review, several purposes were mentioned by different scholars. By showcasing students' digital artworks in the school public space, schools and teachers strive for building cognitive engagement, learning autonomy and a positive atmosphere. In the in-depth interviews, the interviewees also put focus on building an effective school learning environment. The interviews result share a couple of similarity with the literature review, the objectives are shown below (see Table 4-1).

Table 4-1 Purposes in Showcasing Students' Digital Artworks in the School Environment

		T1	T2
Literature Review of Learning Environment	Cognitive engagement	Nil	Nil
	Improve learning outcomes	✓	Nil
	Learning autonomy	✓	Nil
	Active participation	✓	✓
	Increase motivation	✓	✓
	Positive atmosphere	✓	✓
Interviews of T1 and T2	Government's Policy in Education	Nil	✓

From the table, both interviewees pointed out the main purposes are to create a positive atmosphere, enhance students' interests in learning visual arts and motivate students to actively participate in the artmaking and showcasing. Notably, only one of the interviewees considered the Government's policy in education, especially the development of visual arts education.

4.1.1 Creative Effective Visual Learning Environment

From the literature review and interviews, a positive atmosphere is highlighted as the principal purpose for showcasing students' digital arts in the school environment. Through the intensive interviews, T1 and T2 described their school learning environment and talked about the display of students' artworks in detail. Furthermore, they were excited and confident about their achievements.

“We like to share students’ artworks, for example, the two sides of walls in corridors are fully posted.” (Interview, Teacher 1, A3)

“We always showcase all the classes’ artworks, that’s why we need to use the door and corridors for showcasing. The surfaces of doors and walls of corridors, moreover bulletin boards.” (Interview, Teacher 2, A4)

T1 also shared a video that recorded their school environment, especially the showcasing of students’ artworks. From the video observation, the school clearly showcased numerous students’ artworks in school public space, including the school’s entrance, playground, corridors and stairs. It feasted our eyes on the artworks. A fruitful learning environment is created by comprehensive visual arts elements.

However, T1 and T2 did not only describe the showcasing of large-scale artworks and digital arts. They mentioned the showcasing included all the art forms and all the students’ artworks. Digital arts was one of the art forms. Their main purpose of showcasing all students’ outcomes was to encourage them. Instead of focusing on the quality of artworks, T1 and T2 deeply appreciated the efforts of the students.

“Mostly for the showcasing, whatever we showcase digital artworks or other artworks, we may not choose the best one. Trying to showcase most of them, even the good or bad artworks are also showcased. It is what our school likes to do.”

(Interview, Teacher 2, A4)

From the interviews, the researcher found that the most important objective of showcasing is encouragement through art appreciation and criticism. Since teachers provided opportunities for students to display their unique artworks at school, an influential and effective learning environment is developed. In addition, students were inspired by the visual learning environment, how can the showcasing benefit their learning of visual art? Also, why do the teachers adopt an innovative method to showcase students’ digital artworks and large-scale works in school public space?

4.1.2 Develop Students’ Art Learning

According to the content of the interviews, T1 and T2 always mentioned the showcasing of digital artworks is mainly for broadening students’ horizons and cultivating their interests in visual arts. In T1’s interview, T1 spent more than eight minutes explaining the reasons for showcasing at school, especially broadening students’ horizons. Moreover, T2 stated that it is important to use a novel and different way of showcasing students’ artworks rather than the traditional display method. Broadening students’ horizons of arts

was indicated many times in their interviews, in their interviews, and this suggested a great significance of showcasing of digital arts in the school learning environment.

“I want to show children a more different and novel way of displaying. It is something that he seldom sees, is some relatively novel way to broaden their horizons.”

(Interview, Teacher 1, A4)

“Such a large showcase is for giving students a new perspective. It aims to stimulate their interests in arts.” (Interview, Teacher 2, A4)

“They broaden their horizons which can learn about the new display method of Digital Arts and then view in a different way.” (Interview, Teacher 2, A4)

T1 and T2 always had the same thoughts on teaching and showcasing. In their interviews, they pointed out students from their school are mainly South Asian, and some are from low-income families. Teachers are motivated by deeply understanding their students' needs so they designed the most suitable way for them to learn arts. Thus, it is perceived that they could identify students' difficulties and needs in learning. With the similar thoughts on the students' art experience, T1 and T2 pointed out their students lack exploration of arts, such as visiting art museums or exhibitions. By constant observation,

T1 thought the students seldom or never visit art museums. Also, T2 mentioned that it is because students could not afford to buy tickets for exhibitions or their parents would not take them to visit. When the interviewees talked about those concerns and worries, the researcher found that they used a sympathetic tone of voice. Since their students are facing difficulties in learning arts, T1 and T2 are dedicated to novel showcasing at school.

“For my students, I think they lack experience. If you ask are they always visit museums, I think is not. If they really visit museums, are the things like what we do? I also think is not.” (Interview, Teacher 1, A8)

“For example, it needs around \$300 for visiting an exhibition, how can our students afford? It is fewer opportunity to visit new multimedia exhibitions by their parents. I think they will not go.” (Interview, Teacher 2, A4)

As a beginner visual arts teacher, T1 targeted students to learn more between classes through art appreciation of the showcasing digital arts. T1 was absolutely delighted and imitated the students’ reactions three times when they saw another classes’ performance. In contrast, by having extensive teaching experience, T2 paid attention to building up students’ art experience through art appreciation, but also motivate students to create innovative artworks.

“In fact, when they are appreciating, they will think of that time of the study, “So the other class is doing like this! I can learn from it.” (Interview, Teacher 1, A5)

“We are developing information technology. It is what we are doing in those five to six years. Helping students to create through technology, the first thing is to help them to create.” (Interview, Teacher 2, A4)

Through T1 and T2’s thoughts, students from their school do not have enough experience and opportunity for art appreciation. Therefore, to broaden their horizons and cultivate their creativity in artmaking, T1 and T2 designed a convenient learning method at school. With the support from the school, are the students pleased about showcasing their digital arts in the school learning environment?

4.1.3 Responsive Students and Teachers

Since the researcher asked for the students’ responses on the showcasing digital arts, T1 and T2 visibly showed happiness in answering this question. Talking about the response in the interviews, they always used the adverb “very”, “super” and “extremely” to describe the students’ and teachers’ contentment and excitement. T1’s smile broadened when she started to describe the students’ reactions, and T2 talked gleefully with laughter. The word

“happy” was mentioned eight times in their individual interviews which represented a great enjoyment of doing the showcasing. Besides, from the pictures which were provided by T1, the researcher observed the students were excited, and grinning broadly.

“Very happy! Like very much! Extremely excited! (Joy) Because... (Thinking) What to say? Because these display formats are really new, even the teacher is very excited. The adults and children are very excited.” (Interview, Teacher 1, A8)

“Very happy, very happy! They took a lot of pictures in front of the large screen.”
(Interview, Teacher 2, A9)

In addition to students, T1 and T2 also mentioned that teachers were responsive to interacting with showcasing students’ digital art in school public space. A delighted expression was completely shown by T1’s explanation.

“Teachers also like it. The children see the teacher and they like it. They also like it, and everyone likes it. The atmosphere is very good.” (Interview, Teacher 1, A8)

Especially from T2’s interview, he described a teacher’s response in detail.

“Monster’s House” was a digital showcasing that includes diverse students’ artworks. The

digital showcasing had large-scale with a height of around two-story. T2 observed a teacher dancing with the showcasing (see Figure 4-1).

“Because she saw the showcase is very beautiful and she felt very happy after seeing it! The teacher walked to the showcase and danced, not just students.” (Interview, Teacher 1, A9)



Figure 4-1 Teacher Danced with the Showcasing

Teachers’ responsive and positive reactions encouraged visual arts teachers to showcase. T1 and T2 felt grateful because they received cheering from colleagues and students. The teachers were greatly motivated by colleagues and students. Therefore, what encouraged their school to develop in showcasing students’ digital arts at school?

4.1.4 In Accordance with the Government Regulations

Through the explanation of T2, the researcher found out he closely followed the regulations implemented by the Government. From T2's self-introduction in the interview, T2 has extensive teaching experience in different subjects. He has been teaching visual arts for more than thirty years. Furthermore, T2 mentioned eleven times of information technology and STEAM education in the interview. As a visual arts subject panel and activities leader, T2 needed to cooperate with colleagues for pursuing comprehensive and effective school development, especially in promoting visual arts. Once T2 started talking about the development of school or curriculum, he became serious.

"Around this few years, information technology and STEAM is started to be discussed. And we start to think of what we can do in STEAM." (Interview, Teacher 2, A3)

"Five, six years before, when the Chief Executive Leung Chun-ying first said that he would allocate funds to primary schools in STEAM. You can see that there are a lot of policies that have changed Visual Arts. Also, there are some grants for promoting STEAM in recent years." (Interview, Teacher 2, A3)

T2 often talked about the Government policy but T1 never mentioned it. The researcher found that T1 focused on ways to teach students and students' learning outcomes. T1 is a visual art teacher that considers the process. In contrast, T2 considered comprehensively enhancing school development, for example, devising the development plans and activities of the school. The well-planned development is essential for the school's development and students' learning. As a result, in this case study, the researcher recognized teachers with more teaching experience are more aware of social changes and educational development.

“Worrying about the students do not know how to use information technology. There are several new pedagogies for learning. The curriculum has just been reformed, so a lot of new policies and adjustments have been carried out, so we look for new creations.” (Interview, Teacher 2, A3)

To create an effective learning environment and strengthen students' art learning, the school with T1 and T2 made an effort to showcase with the encouragement from colleagues and a broad perspective in education. Since there are many purposes to fulfill in showcasing students' digital artworks in the school learning environment, how did the school achieve success in it?

4.2 Factors in Successful Implement of Showcasing Digital Arts

By analyzing T1 and T2's interviews, the researcher concluded four factors that achieved the successful implementation of showcasing students' digital artworks in school public space. There was a close and progressive relationship between the four factors. A close relationship among the school, colleagues and students, it was the key to success. Effective and efficient showcasing was formed by step-by-step arrangements and executions (see Figure 4-2).

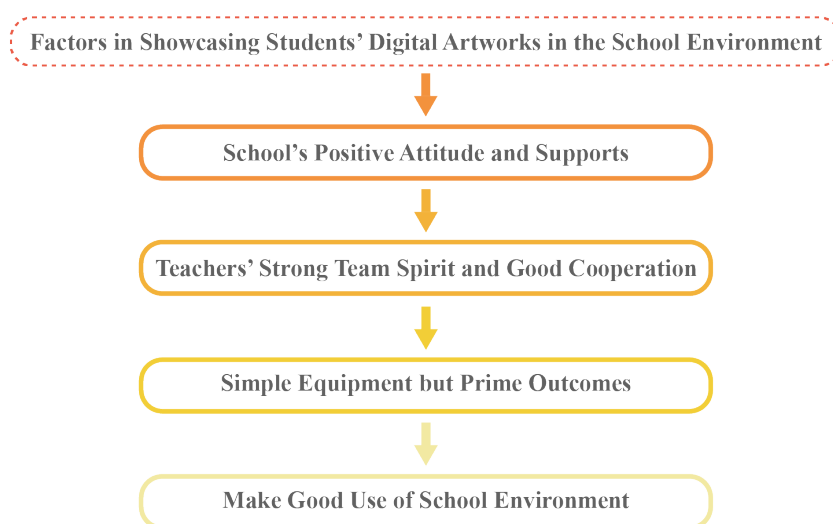


Figure 4-2 Factors in Showcasing Students' Digital Artworks in the School Environment

4.2.1 School's Positive Attitude and Supports

In this case study, the principal of the school was a visual arts teacher. Moreover, visual arts was highlighted for enabling a better development of the school. Through the interview, T1 and T2 described thoroughly how the school provides support and flexibility

for them to effectuate the showcase of students' digital arts and performance in the school public space. Especially, in T1's interview, when she talked about the school's attitude, she mentioned "support" several times with a determined look.

"Because the original setting of the school background is very supportive. Our principal is very supportive (happy), so you can do anything.....No one will obstruct it, no one will oppose it, and people will only support it. The Visual Arts teachers in each class are very supportive." (Interview, Teacher 1, A6)

Since everyone at school supports visual arts teachers to implement the showcasing, T1 was grateful for observing her facial expression and tone of voice. The researcher found out the school performed an important role in implementing the showcasing of students' digital arts in the school learning environment. The school supportively provided freedom for teachers to explore. A strong positive attitude from the school was completely shown in the interview. In addition, T1 and T2 pointed out that their school also provides adequate support on equipment. To improve the quality and effectiveness of showcasing students' digital artworks at school, T2 could frequently buy new equipment for upgradation, such as projectors with different functions and televisions.

“Recently, we bought a TV which is around 80-inch. The TV can be moving around for showcasing and displaying.” (Interview, Teacher 2, A6)

“Last time I bought three projectors and used them to make the large showcasing. Then, I bought two more because the three projectors only can project by a long distance. Now I have bought two more powerful ones.” (Interview, Teacher 2, A6)

By having the flexibility of exploration, teachers can facilitate efficient display which brings many benefits to students’ learning, moreover, the school’s status. The school demonstrated unwavering and continued support for visual arts teachers to develop the showcasing in different aspects. It is an unequivocal affirmation of the school’s positive attitude. Also, it is undoubtedly that the showcasing is reinforced by the school. With the positive support from the school, visual arts teachers designed e-learning and used digital technology to implement the showcase.

4.2.2 Teachers’ Strong Team Spirit and Good Cooperation

Referring to the content of the interviews, the researcher realized that T1 and T2 were highly cooperative since they were partners in teaching digital arts, planning and organizing the showcase of students’ digital artworks in the school environment. T1 mentioned T2 fourteen times in her individual interview. Also, T1 introduced the work

division and their cooperation. T1 mainly teaches students to make digital artworks in visual arts lessons and organize regular showcasing. For example, using iPads to draw pictures and make short animations. T2 is responsible for designing and making the showcasing, such as exploring color mapping and construction of the display, mainly large-scale displays.

“So, the collaboration between me and the teacher (T2) is to combine my strengths with his strengths.” (Interview, Teacher 1, A5)

“In fact, there are some collaborations between us and our colleagues, which ignited the new spark. For example, the teacher (T2) who I collaborate with the most.....I cooperated with him frequently. During the cooperation, he is a very creative teacher, he will think of many different display forms.” (Interview, Teacher 1, A5)

The assistance is provided by not only all visual arts teachers but also colleagues at school. They provided support in the implementation and setting.

“T1, principal and I are there, and some teachers, there are many people to help us. Everyone helps if they like.” (Interview, Teacher 2, A7)

Since T2 is the leader of school activities, he has a close relationship with the teachers in music and physical education subject. They would strike up close collaboration with colleagues to organize major school programmes, such as showcases and performances. Digital arts are for showcasing but it can also combine with different art forms for outstanding and diverse performances. By the observation of the photos provided by T1, digital arts was integrated into dancing and drama (see Figure 4-3). In these regards could show a hi-tech and professional performance with affordable manpower and resources.

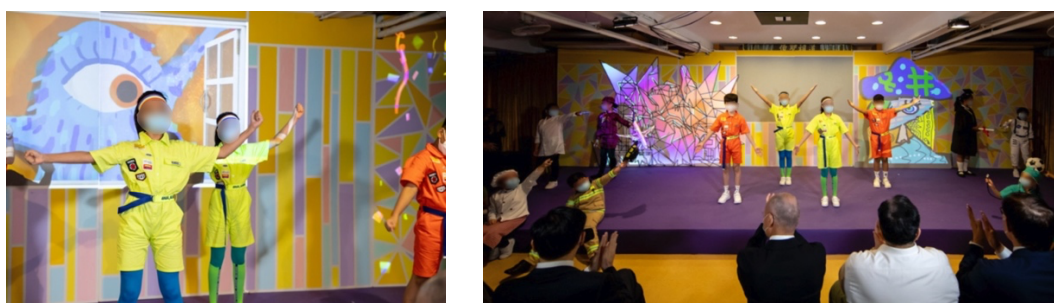


Figure 4-3(a) (b) Students Danced with Projection Arts

They worked in close partnership with colleagues that showed a strong team spirit in organizing the showcase of students' digital works and multimedia performance at school. With the huge manpower, the equipment is also significant for facilitating the success of showcasing students' digital artworks.

4.2.3 Simple Equipment but Prime Outcomes

During the interviews, T1 and T2 comprehensively introduced previous digital artworks and large-scale showcasing by showing many photos and videos. Through the observation, most of the showcase is projection art and color mapping by the software, Lightform. From the pictures, there is limited and simple equipment such as computers, iPads and projectors (see Figure 4-4). Students learnt how to draw with digital equipment and understand the steps of creating animations. Although they use simple devices, they made a professional digital showcasing. The researcher found out students act an essential role in the creations. Students performed diligently while they were doing digital artmaking and showcasing.

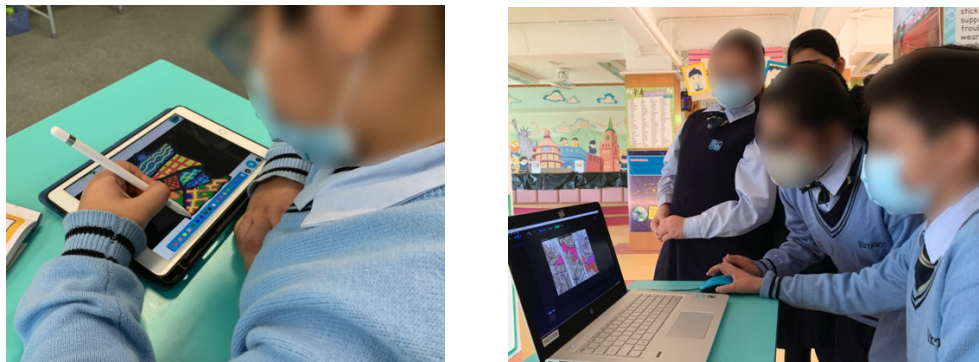


Figure 4-4 (a) (b) Student Uses Different Equipment to Make Color Mapping

Both T1 and T2 shared the making of in the interview. In T1's interview, she introduced the process of color mapping. Visual arts teachers taught students to create digital images, then T1 and T2 would use different software to help students make the

animations. As a result, by using computers, projectors and foam boards, the animations became a color mapping showcase in the school public space (see Figure 4-5).

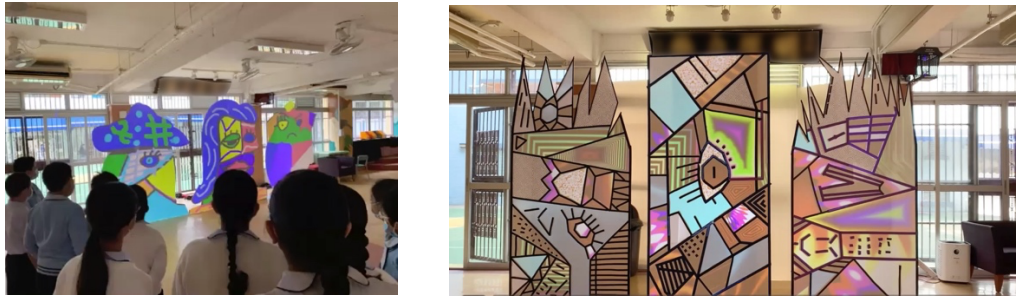


Figure 4-5 (a) (b) The Showcasing of Student Digital Arts

“The artwork of Picasso’s Portrait, you could see that it has actually used three projectors behind the scenes. You need to have these devices, am I right?” (Interview, Teacher 1, A6)

Moreover, there was a team which is composed of students with professional skills in making animations and showcases.

“There is also a team of smarter students, so they learned how to do animations, such as the simplest action of flapping the wings. It is very easy to pull up and down, and repeat the actions on the software, then it can be output.” (Interview, Teacher 1, A8)

Although the school does not have professional and expensive equipment, T2 worked hard on creating the construction. The large-scale showcase of Halloween is the largest project. Using foam boards and wood, T2 built up a long screen for projecting students' drawings (see Figure 4-6). It is observed from the video that the students were excited and delighted with the showcasing, furthermore, they would react to the animations (see Figure 4-7).

“The largest one must be this one. This screen is about several feet. I don't remember how big it is.... You can see this video is quite long. Imagining if you were there in the hall, you would be very happy to see it in the darkness.” (Interview, Teacher 2, A7)



Figure 4-6 Students with the Projection Art - Halloween's Monsters



Figure 4-7 Students React to Projection Art

In contrast, T2 has more experience in exploration and implementation than T1. T2 mentioned that he thought making the showcase of students' digital artworks is easy. An important point to know from the interview, T2 worked on the exploration of techniques and the setting with simple materials. On the other hand, T1 mainly used different software for teaching. The researcher found out that although T1 thought it is hard to do, enjoyment always appeared.

"It's really hard to do it but they love it very much." (Interview, Teacher 1, A8)

"Not too hard? It's OK, acceptable. I'm used to it, it's like this every year. I do this every year, and I don't think there is anything." (Interview, Teacher 2, A6)

Observing the pictures which showed a large-scale showcase screen in the playground in detail, the researcher understood how T2 used foam boards, but the outcome is prime and fantastic (see Figure 4-8).

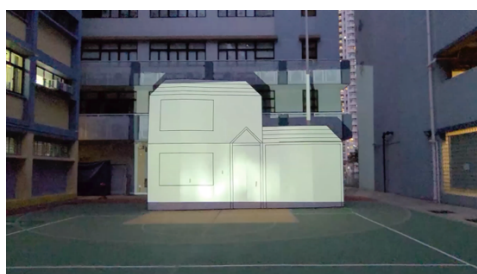


Figure 4-8 Simple Setting but Excellent Outcome

Since T2 is the leader of school activities, only he introduced digital arts with performance. The photos showed the materials of projection art clearly. Making good use of foam boards and walls (see Figure 4-9), students could dance with their digital arts. In general, the visual arts teachers at the school used simple equipment to create surprising showcases and multimedia performances with students' digital artworks. Therefore, how can the teachers showcase student digital arts in school public space?

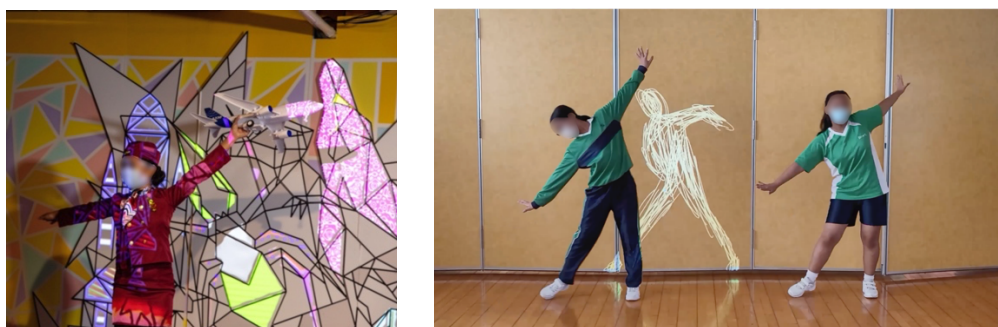


Figure 4-9 (a) (b) Students Danced with Their Drawn Animations by Projection Arts

4.2.4 Make Good Use of School Environment

T1 and T2's school is one of the oldest schools which was built in 60s. They pointed out that they would make good use of school public space to showcase in only one to two days. Since the school does not have enough space, T1 and T2 still made a great effort to provide opportunities for students to learn arts. Also, T2 mentioned the word “space” and

“time” many times to point out their importance. It could be shown that they are persevere and determined to motivate students in learning arts.

“School building is the smallest, very small, super small. It hinders our development, it really hinders our development seriously, there is not even a hall.” (Interview, Teacher 2, A6)

“We are for a short period, maybe put it away after the show is finished, put away after viewing it. One day or half a day. Sometimes two days, most of them are one day, because you obstruct the place, and we lack space.” (Interview, Teacher 2, A6)

T2 also explained how they would do during the days of showcasing. Visual arts teachers would invite students to appreciate but because of the limited space and time, classes would be led by teachers to visit the showcase. Moreover, he pointed out they needed to arrange seriously and planned carefully for the showcasing.

“It needs to take students to see, not free activities! Not free activities! It is because the time is very tight, and everything needs to be arranged to see. We only have one day, and there are so many people in the school. We must make arrangements very carefully, and there are time periods.” (Interview, Teacher 2, A6)

Despite many difficulties of space and time, T1 and T2 stated that it is worth it without hesitation. The researcher found that they are contributing to the advancement of showcasing student digital arts at school.

4.3 Conclusion

In summary, the results of analyzing the interviews, observations and documents are shown below (see Figure 4-10). It clearly emphasized how important the showcase of students' digital arts is, as well as the purpose and factors are provided for teachers as a reference.

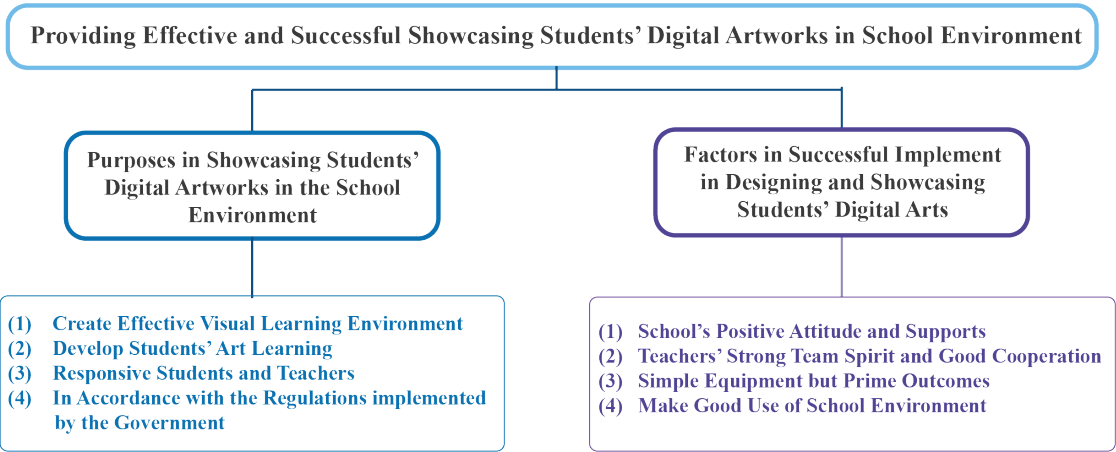


Figure 4-10 Purposes, Factors and Ways to Showcase Students' Digital Artworks at school

According to figure 4-10, the researcher realized the main beneficiary is students, since three out of four purposes were related to students. By enriching the student learning

experience and creating an effective visual learning environment, the showcase of student digital arts is important for enhancing students' arts learning at school. Teachers monitored educational developments closely, moreover, gain support from colleagues to have a successful showcasing. To ensure the effectiveness of showcasing, T1 and T2 played a key role in exploration and organization. Furthermore, the positive support from the school and colleagues have made much of their implementation possible. In essence, the school achieved success by the examination of purposes and factors in showcasing student digital arts in school public space.

Chapter 5 Suggestions and Conclusion

For a comprehensive understanding of the effective showcase of students' digital arts at school, some suggestions were provided by referring to the literature review and findings of the research.

5.1 Deep Understanding of Schools and Students' Characteristics

Concluded from the literature reviews, digital arts needed digital technology or new media to create. Some of the digital arts are created with professional equipment which has amazing outcomes. However, from the school of this case study, T1 and T2 mentioned many difficulties and challenges in showcasing students' digital arts at school during the interviews. Due to the limited space and time, the showcase could not exhibit for a long period. They could only showcase for one to two days. Also, the equipment is simple and common which is not in a very professional condition. The students are mainly South Asian, and some are also from low-income families that lack external learning experience. Therefore, reflecting on the case, is the lack of those resources an issue? It is definitely not. In spite of the inadequacy and challenges, they made the showcasing a big success.

From the interview, T1 and T2 have well-rounded knowledge about the characteristics and situations of the school and students, especially the learning needs. For example, teachers realized their students do not have opportunities to visit art museums or

digital arts exhibitions, so they design showcasing of digital arts at school for them. Regarding the school, those issues do not affect the implementation a lot because teachers are the most important in this situation. 黃素蘭(2001) interviewed T2 in 2001 and he was teaching in the same school. T2 stated that for the public to understand the importance of visual arts, teachers needed to change. Everything depends on teachers. By cooperating with teaching and learning in a different generation, teachers should improve and upgrade. Moreover, 周淑卿(2004) mentioned under socialization, teachers should critically think about the interaction between themselves and the school system. Based on the research, they highlighted the responsibility of teachers.

The teachers used limited resources to make a remarkable achievement in showcasing for the students to learn. As a result, for the schools with sufficient support and resources, it is believed that they can easily succeed in showcasing students' digital arts at school. It is a valuable reference for teachers to explore. For cultivating students' positive learning attitude, new methods of showcasing could be conceived by hardworking teachers.

5.2 Importance of Teacher Professionalism

The school performed well in showcasing student digital arts. Through the interviews with T1 and T2, they showed their teaching professionalism. 巫淑華(2007) pointed out

teachers should put a lot of effort into the depth and breadth of knowledge for pursuing professionalism. As a beginner teacher, T1 was good at using different software such as FlipaClip, Adobe Animate and Adobe After Effects for teaching students to make digital artworks and showcase them. Observing the video, T2 explored different forms and styles for students' artworks and the method of showcasing in his leisure time, for example exploring color mapping by Lightform (see Figure 5-1). T1 also mentioned T2 always buys different materials and equipment for testing and exploring.

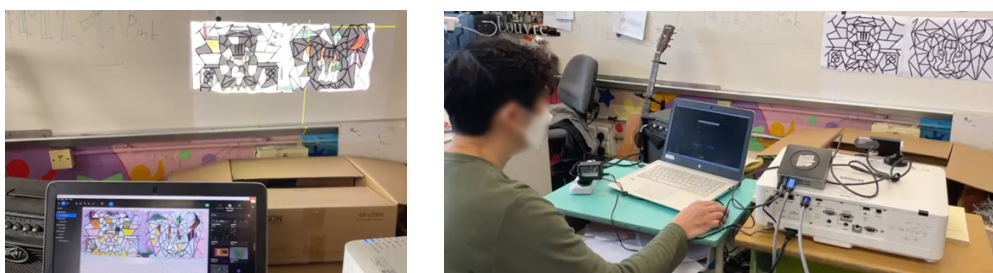


Figure 5-1 (a) (b) Visual Arts Teachers Tested Color Mapping

The researcher found out T2 greatly expressed teacher professionalism by sharing his teaching experience and attitude. According to the interview, T2 mentioned he would watch many arts programmes to broaden his horizons which inspired him to design the students' visual assignments and the way to showcase them. Moreover, he would visit different art exhibitions. 周淑卿(2004) stated that the professionalism of teachers is about self-reflection and self-upgrading. Both interviewees review their outcomes and then make improvements. Continuous learning is important for achieving success. As mentioned in

吳靜吉(2002), being a teacher who teaches creativity should be a life-long learner with passion.

Furthermore, T2 follows social changes and development closely. Reacting to the ever-changing environment enhances the effectiveness of learning visual art. 甘永麒 (2001) stated that T2 thought creation cannot be separated from society and the living environment. The teachers should be responsive to the present world with continuous improvement.

“We all need to learn a lot of new technologies to do some new creations. New things can stimulate your thinking, then innovative ideas and works will come out! It is not always doing the same thing.” (Interview, Teacher 2, A5)

The passion for teaching is significant for a teacher. As a proactive, passionate, responsive life-long learner, teachers’ professionalism is extremely important for effective teaching and learning. There is no doubt that teachers make achievements in the showcase of student digital arts in school public spaces.

5.3 Conclusion

To conclude, the main purpose of showcasing student digital arts in the school learning environment is to enhance students' arts learning and motivate them to learn actively. Schools and teachers act a vital role in the effective implementation of showcasing. By comparing with the traditional showcase, it is more attractive for students, such that it maximizes the effectiveness of learning. This case study showed a successful showcasing of students' digital arts at school by their purposes and factors. It is crucial for pre-service and in-service teachers to understand the importance of showcasing and recognize the implementation of showcasing digital arts in a school public space for improving students' visual art learning. The showcasing of students' digital artworks could be further promoted.

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Appendix 1: Interview Script Teacher 1 in Chinese

Interview Date: 2022.02.08

Interview Time: 11:00 a.m. -12:00 p.m.

Interview Method: Online by Zoom

Interview No: T1

0:58

問	(講述同意書的內容)	Q1
	你任教了多少年視覺藝術科？	R1, 2
T1	……（思考）今年是踏入第四年。	A1
問	你是不是畢業後就馬上當老師？	
T1	是。	A1

1:28

問	請問您在這所學校任教了多少年視覺藝術科？	Q2
		R1, 2
T1	現在大概三年半。	A2

1:31

問	您在這所學校，會如何形容這所學校的學習環境（譬如視覺元素）？為甚麼？	Q3
		R1
T1	……（疑惑）即是怎樣？	A3
問	即是在說學校的校內環境，會不會展示學生的作品？在走廊、操場或其他地方。	
T1	明白，明白。我們是很喜歡 share 小朋友的作品，例如我們的走廊都會貼滿兩邊，那些老師都……那一個是一個無形的共識來的。即是我從來沒有在科組會要求過，我沒有要求過我們的科任老師去做這件事的。那麼不過我們會……例如視藝老師，即是本科一點的老師，例如我就會和另一位老師（T2）我們會主動做這一件事。那麼特別是我，我就會每教完一個 topic，就會盡量把他們的畫全部貼上牆，慢慢地他們有了這一個……（思考）怎樣說好呢？即是其他同事看到小朋友會圍着那些畫來看，那麼即是他們都喜歡的，那麼所以他們都會一直去做這件事，即是大家會互相感染，一個做，第二個做，第三個都會做。特別是低年級，低年級的走廊我們都會兩邊有很多小朋友的作品，那麼都會很開心的。至於我的拍檔（T2），那麼他喜歡做些甚麼呢？他就喜歡	A3

	做一些大型的展示，即是譬如我是一些比較恆常的展示，他就喜歡做一些大型一點的展示。那麼所以我們可能 locationally 去找某一些日子，例如萬聖節、教到某一些課題，總而言之就是找一個原因去展示他們的作品。那麼那些展示是怎樣的呢？就不是每天都擺在這裏，就可能是那個 period ，例如某個時間就給他們就着某個 topic 去做作品，便會全部展示。譬如之前萬聖節，為了慶祝萬聖節，他們做了一些怪獸作品，我們就把全部放在 Hall 那裏，或者可能上年他們做了一些……你純粹是在說公共空間嗎？	
問	是的。	
T1	OK! 即是例如他們不一定 digital arts 的，總而言之例如他們自己做了些燈籠，我們也會把它們全部放在 Hall 那裏。不過這些……（思考）怎樣說呢？節日性？即是不是經常在這裏，某一個 period 因為一個事件，大家便會做一件大的展示。	A3

4:40

問	就你所說，這些都是比較傳統的 artworks ，請問在學校校園的公共空間中展示學生數位藝術作品，這次就是 focus 在 digital arts ，有何目的？	Q4 R1
T1	一定是想給小朋友看到更加不同、更加新穎的展示方式，即是不是一些他經常會看到的類型，是一些比較新穎的方式而令到他們開到眼界，知道我的 artwork 雖然是畫畫，但是最後原來可以變成這樣子的（驚訝、感歎）。是一個新的學習來的，他們知道原來 artwork 的展示原來可以去到這樣子的。那麼至於公共空間，因為一來空間是夠大，那麼所以第二個目的就是要令大部份、多數，甚至是全部的小朋友作品都有機會展示到。即是令到他們看到自己的作品，不是很悶那樣子，靜靜的貼在那裏，而是懂得動的，或者它們是在一個 screen 上面的。即是鼓勵他們，「我的作品啊，我找到我的作品啊！」、「你看不見我的作品啊？」（興奮），即是可能他們一邊欣賞的時候會有這些互動，所以就會有這些目的。	A4

6:42

問	請問哪些因素促使您運用數位藝術在校園中展示學生的藝術作品？	Q5 R1
T1	在我的方面，我就……（思考）怎樣說呢？即是我為甚麼想做 digital arts ？在校園裏面展示？	A5
問	是的，是的。	
T1	那一個原因都是……如果你這個問題我不要數位這個詞語，你就是想將 artworks 在學校裏展示。因為你就是想給小朋友看到多一點他們的	A5

	<p>artworks，不過因素就是其實有一些是我們和同事之間的合作，是一些合作的火花，例如老師（T2）我和他合作是最多的，即是如果要設計這些展示的話，如果我不是從學生那個方面想的，可能在展示的方面想的話，我和他的合作是最多的。那麼和他合作的期間，例如他是一個很有創意的老師，他會想到很多不同的展示形式，但是我自己就比較強在做一些 digital arts 的教學。因為我自己讀書的時候都經常用不同的 apps 去做 artworks、做自己的 portfolio，即是我自己都很習慣做這些東西，所以直到現在教書的時候，我都會想把這些東西 deliver 給小朋友的。但是你把這些東西給了小朋友的時候，就是你要 create 到一個空間能夠展示對他們的作品，因為你教完他們，他們需要分享，這就是視藝老師的工作。那麼所以我和老師（T2）之間的合作就是把我這個強項和他的強項融合在一起，所以例如他可能看到一些 apps，他都會自己會想到：「我們可以這樣去變，去做這類型、那類型的展示」。那麼所以很多時候會變成一些我們學校校本的 project，是這樣去做的。所以有老師的因素，又有學生的因素。不過最大為本的一定是想給小朋友，給他們看到更多不同的形式。即是你展示不是只是想展示到他們的作品這麼簡單，是想他們看到作品有更多的空間怎樣去發展，這個是從他們學習的角度去想的。</p>	
問	<p>在學生的方面，你提到展示最大的目的都是在學生角度，學生會不會在展示的過程中可以再學習到些甚麼？</p>	
T1	<p>會，因為你不是只是展示的，即是可能他做完後，其實你……雖然是全校展示，但是因為那件作品是由你的視藝單元而來的，即是我們 integrate 他們的視藝單元然後推出成為了一個大型的作品，但是其實它本身都是一個單元，那麼所以你在每一個單元完的時候，你會和小朋友 round-up，他會知道自己有甚麼做得好、做得不好。那麼如果你放到一個大型的地方，大家看到大家的作品的時候，他們其實一邊欣賞的時候，他們會想到那一次的學習，「原來隔離班這樣子的！即是我可以這樣學到。」（感嘆）即是都會有這些情況，而他們都會學習得到的。還有他們會看到多一些的變化，因為如果你只是自己的班自己做，自己的班自己分享，那麼他們所有東西都只是看到自己班，如果你一起的時候，不只看到自己的班，他甚至看到隔離級做的東西可能大同小異，或者 topic 有一點不同，他也會看到多一點的變化。</p>	A5
問	<p>明白，明白。你會不會有嘗試過在展示之後會有一些 tasks 或 assignments，讓學生從展示的作品再做一些東西？</p>	Q6 R2
T1	<p>你的意思是他們一邊在展示的時候，他們做一些 tasks，好像藝術館那些？</p>	A6
問	<p>是的，是的。那麼會不會有？</p>	
T1	<p>我們比較少的。因為一來做大型的展示，我們不能將他們二十四小時</p>	A6

	那樣放置出來，通常的展示是一日的、半日，我是在說大型的展示，即是不是走廊那些，我們剛剛說的那些是會佔用了空間，而我們是火柴盒學校，如果它長期放在這裏是會放不到學的，例如在禮堂做的話是會排不到隊的。那麼所以我們就沒有辦法可以很長時間放置來讓他們做一些活動，因為很快，真的是「風火式」那樣子 set up ，再「風火式」那樣子看完，再「風火式」這樣子撤退，所以會有這些限制，所以就沒有辦法做到你剛才說的那些。不過老師都會帶領他們去看的時候，就算不是視藝老師他們都會很 nice ，即是他們會一邊帶領他們，一邊叫他們留意這些、留意那些，純粹是口頭上那樣子說，但是你提到至於有沒有工作紙來記錄的，我們是沒有的，但是就是因為我剛才提到的因素。	
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13:27

問	請問在學校的公共空間中展示數位藝術需要考量哪些因素？例如學校願景、老師和學生方面。	Q6 R2
T1	在學校願景方面，我們沒有太多這方面的。因為本來學校背景的設定就是很支持的，即是我們校長很支持的（開心），所以做甚麼也可以的，即是做這個會更好，可以給小朋友有機會看到多一點活動，是一件好事來的，即是不會有人阻撓、不會有人反對，只會有人支持。每一個班別的視藝老師都大力支持，因為我都曾經提及過，公共空間展示的數位藝術，你這樣說一定是全校的藝術，而這些藝術品是一定由每一堂的視藝課而來的，即是我們把它 integrate 入去，那麼所以每位視藝老師都知道其實之後是有這個 purpose 的，但是即是賣個關子不讓他們先知道，但是都會在課堂裏面很盡力地幫忙，大家一起去完成這些課題，令這事成事，是的。不過要考慮的因素……（思考）我想是位置還有硬件的設備，例如說好像我們學校這樣子，我舉一個例子，你剛剛看過的 Picasso 那個，其實已經在背後用了三個 projectors ，例如這些你需要有這些設備才可以的，是吧？你沒有理由做這件事你真的去課室拆了 projector 來做的（苦笑），即是別人都需要用，即是你要有一些 extra 的位去做。還有……（思考）我覺得在我們的展示，那件事是需要很實地的，即是我們的做法……可能因為我們學校小，資源我們是 OK 的，但又不是說很多，即是我們有很多東西都會想得「土炮」一點（笑着說），即是 man-made 一點我覺得。為甚麼我這樣說呢？例如你要拉一個 screen ，你要知道你在一個這麼小的空間裏可以搬運到，你明不明白？即是那件事需要運作到才可以的，即是例如如果你要搭一個大木架，如果要純粹天馬行空這樣子，那麼你是完全不能在有限的空間和有限的時間去展現最多的作品。即是有時候那個「土炮」的方式，例如老師（T2）很厲害的，他的 screen 是用 foamboard 的，輕飄飄的，很容易！你就這樣垂直放，後面就這樣加一個座就自己站起來	A6

	<p>了。這些就是……即是你在學校裏面要想到，因為我們不是藝術館，我們要用一些最簡單，但又能夠出到他的 potential 是最大的方式來做這些公共空間的展示。那麼我覺得這些是重要的，即是不可以所有東西都很 fancy，要那些實實在在的，你要想到怎樣搬運，你要想那個空間怎樣可以……在我們學校雖然小，但是可以用得最盡，你又要想到怎樣可以最快……雖然我們會有很多同事幫忙 set up，但是你又要想到怎樣在最短的時間內完成 set up 和最短的時間撤走。因為公共空間是在說大家都用，那麼你不能經常 occupy 了給 art，你要想到別人、其他同事，別人的 PE 堂都需要上的，不能長期放在這裏，那麼所以這些東西需要考慮的。但是你有了這些考量的時候，你對於那個數位藝術就有變化了！即是因為你有了這些前設，那麼你才會要去想到怎樣用你的 artwork 來配合到這些東西，大家互相配合。那麼所以你這兩個 term 是大家都需要有關聯一點的，即是 mix up 到才可以。</p>	
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18:32

問	剛剛你提到 man-made 、「土炮」一點，請問學校需要有甚麼軟件和硬件的資源？會不會有例子可以分享一下？	Q7 R2
T1	有，我用一下 PowerPoint，好像這個這樣子，OK！我給一些上一題的，讓你容易一點 idea 想到怎樣說、怎樣演繹。	A7
問	好啊！好啊！	
T1	<p>（展示簡報）公共空間，例如好像這些萬聖節，即是看上去覺得很長是不是？但是其實我們的 Hall 十分小，還有三條柱在中間頂着，那麼所以這些你需要想到怎樣最快、最容易去做，例如這麼大的 screen，你真的要去買一個這麼大的闊螢幕，即是怎樣買到呢？（笑着說），那麼所以我在說「土炮」一點就是這樣了。你要想到一些方式去怎樣做，例如老師（T2）想到用 foamboard，例如你拉一塊布或者怎麼樣也好，即是你要令到這件事既簡單又夠做到。剛才我提到的例如這些公共空間，例如這些燈籠、燈飾這些，你從相片看到其實已經佔了很大的空間，已經是我們 Hall 很大的部份。那麼你又要想怎樣可以短時間撤退、撤走，這個雖然都放了兩天的，但是例如好像這些 set up、全部掛起，那麼你都需要有同事的幫忙，你可能又要想到可能掛的時候，你的燈籠重量又不可以太大，但是你的重量不大的時候，你可能在單元上又已經要控制了它，所以你剛才提到的兩樣東西都是有關聯就是這樣的意思了。</p>	A6
問	明白。	
T1	那麼我現在回到剛才的硬件和軟件的問題。好像我用這個做例子，這個！ Color mapping 、 projection mapping ，好像這些硬件你就需要用到 projectors ，而硬件軟件你就需要用到一個程式和一個儀器就是叫	A7

	Lightform，那麼例如這些你需要能夠 scan 它，你看一看！即是他其實可以做些甚麼呢？就是 Scan 到這些線條和格仔，然後在線和那個格做到變化。即是這個不是是隨意 scan 下去就可以，在這張圖片你看到小朋友在學習怎樣用 Lightform 這個 apps。這個就是我說的媒介之間的轉換，這個其實是用 sketchbook，學習先用線怎樣勾這些玻璃的畫面，那麼其實它就是用 Lightform 去 project 到那些線條，跟着它就可以做到這些效果了。你看到嗎？	
問	看到，看到！	
T1	例如這些需要的硬件、軟件，例如小朋友本來的 iPad 都需要有的，即是小朋友的部份也要有，老師的部份也要有。然後跟着例如好像這個，這個也很好玩的！軟件不只是那個 Lightform，即是可能他……例如你想到用 Lightform，那麼其實你 Lightform 是在 scan 中，例如這些動畫都是小朋友自己做的，那麼這個軟件除了這個 apps 自己的本身之外，還有那個藝術品的內容的那個軟件也需要有。即是你在做一件藝術品，那麼你的軟件本來的……你想呈現的藝術品本來都先需要有的。大約就是這樣了，不過我們大多數做 digital arts 就會用 projectors 的。	A7
問	你剛才提到 projectors，那麼剛才圖片顯示在操場的大型屋，都是使用 projector 的嗎？	
T1	是可以投影到這麼大的 screen。	A7
問	那麼我想問一下剛剛那個是用了多少部 projectors？	
T1	你在說哪一個？	A7
問	即是剛才圖片顯示的大型屋，如果要做一個這樣的 scale，需要多少部？	
T1	一部，一部其實已經可以了，你買的時候需要看它的 spec，它是有一些可以遠投，之後它可以拉到這麼大的，跟着你的流明又要高，即是你要看這些 spec，你不能隨便買一個去 campsite 的 projector，這樣會不行的。	A7
問	好的，那麼所以軟件的話就會憑着不同的課程，會用不同的 software？	
T1	是的，基本上都是這樣子的。	A7
問	請問是不是所有這些展示的模式都是你們一手一腳自己做的？	
T1	是的。即是甚麼意思？	A7
問	即是你所提到的「土炮」的意思。	
T1	是的！是的！沒有找公司，全部土炮形式的。用最低廉的成本去做出最高的效果。	A7
問	剛才所見你展示了一些數位藝術的作品都是一些投影的類型，會不會還有其他類型？	
T1	……（思考）so far 我們……讓我先看看。（查找資料）	A7
問	數位藝術是用到 technology 它也屬於數位藝術。	
T1	你是不是一定要公共的展示？還是你現在是在說課題上面？	A7

問	公共的展示，即是做完 artworks 後展示出來。	
T1	有的，有的，給你看一下。即是用到 technology 就是嗎？	A7
問	是的，是的。	
T1	（展示圖片和影片）那麼好像例如這一個，是在做甚麼呢？這是夜光掛畫，其實是淘寶買了這些夜光紙，跟着我們用 acrylic ……老師（T2）用 acrylic 塗黑了它，然後你就好像那些刮板一樣刮走，有沒有玩過那些紙張刮在黑色上面，然後有些彩色的圖案？	A7
問	有啊！	
T1	是的，我們有「土炮」版！（笑着說）老師（T2）想的，好厲害啊！它本來就是一張夜光紙，整張都是夜光紙來的，那麼塗了黑色 acrylic 後，你乾了之後就可以很容易用竹籤刮走。那麼小朋友就是刮這些魚，或一些 pattern 、畫魚的形狀那樣子，跟着他們就可以（播放影片）這個你看到，刮！刮！刮！那麼他們刮完之後，我們會把它們放在一個儀器，它就可以這樣子了！是啊！這個是老師（T2）做的，非常厲害！（感嘆）是啊，它懂得移動，但是其實它的背後是為甚麼可以這樣子呢？其實你開燈後，它其實只是一個 foamboard ，跟着再有一個裝置，那麼那個裝置是他弄了一個路軌，那些玩具車呢！其實就是在吊着那些魚就移動，你明不明白我在說甚麼？	A7
問	我明白啊！十分有趣！	
T1	（播放影片）其實他就像一串魚蛋吊着魚，其實這裏有一輛玩具車在轉的，這樣走。你夜晚因為關了燈，因為全黑了，所以夜晚是看不到的，那麼他只要利用螢光貼紙剪一剪 frame 便可以了！就是這樣子了，那麼我們就是一起做了這一個 project 。	A7
問	看到這個懂得移動，我剛才還看到上面的那個是不是自畫像來的？好像是用了 neon light ？	
T1	是的，這些算不算是你說說的 technology ？這個是單線畫，那麼他是學習了用線先來勾劃自己的樣子，他最終其實不只是用線來畫畫的，最終是畫完後他需要用這些 EL-wire 冷光線，我不知道你平時坐 Uber 、坐的士有沒有看過別人的窗？或者你自己有車，你有沒有看過別人的窗有一條邊，很 fancy 的那些，就是這些線了！也是淘寶可以找到的。那麼跟着就是運用這些線勾出他已畫好的形狀，在黑色板上面勾，然後我們就展示他們的作品，就是這樣（展示圖片），你看到有黑色板，然後運用線勾出來，跟着他們就排、排、排成一行，在夜晚的時候開了燈一起看，就會這樣子！非常漂亮！	A7

30:36

問	看到你有很多學生的照片，請問學生對於在學校的公共空間中展示他們的數位藝術作品有何反應？	Q8
		R1

T1	超級開心！十分喜歡！超級興奮！（喜悅）因為……（思考）怎樣說呢？因為這些展示形式都真的是新的，就算是老師也十分興奮。即是大人和小朋友也十分興奮，因為新穎還有那個一點是他們看到這不是一些很 fancy 的東西，是一些垂手可得的材料，但是可以變成這樣子，即是變成這樣的形式給他們看，那麼他們會十分興奮。還有對於我們的小朋友來說，我覺得他們平日的見識是比較弱一點的，即是你說他們是不是經常到 museum，我覺得不是。即是他們經常去 art museum，又是不是這些呢？我都覺得不是，大部份的小朋友。所以這些活動是給到他們一些類似的經歷、經驗，即是其實他是看到一個 artwork 在一個公共的空間裏，有反應，有互動，又在作品前面拍照，其實整件事就像整個 museum 那樣子，即是站在展品前面。我覺得他們在這個過程上面有了這個經驗，都開心的！做這些真的十分辛苦，但是他們是非常喜歡的，即是他們看到後「嘩嘩聲」的，很自然因為是小朋友，是的！所以他們非常喜歡！還有老師也會喜歡，即是小朋友看到老師也喜歡，那麼他們也很喜歡，大家也很喜歡，即是那個氣氛是非常好的。	A8
問	我想問你有沒有覺得哪一件 artwork 是最深刻的或者很喜歡的？	
T1	……（思考）那麼一定是萬聖節那個，因為那個真的是一至六年級都畫，全校參與。一和二年級畫南瓜，我再給你看多一次（展示影片）。一和二年級就畫這些小南瓜，三和四年級就畫會走的怪獸，即是會用腳走的，五和六年級就畫一些懂得拍翼的怪獸。那麼你看到那些畫其實沒有用 digital apps，這些全部都是手繪的。那麼但是為甚麼他們會懂得移動呢？為甚麼他們在螢幕上面懂得移動呢？是因為我們把他們的作品退了地後，我們用動畫軟件幫他們弄的，即是幫他們弄到懂得移動，還有一班學生比較聰明的，便學習了怎樣做那個動畫，即是拍翼這個最簡單的動作，其實都非常容易的都是拉上拉下，repeat 這個就可以 output 了。是的，那麼他們……而且是這麼大，真的非常大！很大！（強調）是橫跨了很大的，而且看到他們的作品本來只是在畫紙上面，但是現在變得懂得跑和移動，就非常開心！他們是非常 enjoy 的，超級喜歡和非常開心。	A8
問	你會用甚麼軟件來做這個 animation？	
T1	我和老師（T2）是不同的，因為我們這裏這麼大量的作品一個人是會死亡的，雖然兩個人都死亡（大笑着）。即是那個準備是非常多的，但是我和老師（T2）不同，那麼我自己用 Adobe 比較熟悉的，所以我會用 Adobe Animator，我的做法就是首先利用 Animator 看這些公仔裝骨，rig 了它和定了一些點，然後用 Animator 先做移動又好，飛又好的動畫。然後我再將他們的 file 過到 After Effect 裏面，即是不同的 parties 一起向橫走、上下移動，要 output 一條片的。	A8

36:10

問	為甚麼學生會有這些反應？這些反應是您所期望的嗎？	Q9
		R1
T1	根本是的，還很開心！這個是我和另一位老師（T2）都很有成功感的，即是這一次的展示這個 project ，我們是很開心的，因為他們每一班下來看，還有你看到他們看到自己的怪獸在跳下跳下的樣子，真的很可愛！即是他們很喜歡自己的作品，或者他覺得這個作品令到他們很開心才会有這些反應。其實做老師你為了學生去準備這些東西，其實最希望看到的就是這些反應了！他們開心又喜歡，又會大家互相去找作品，即是看到你看到這些反應是我們期望看到的。	A9
問	想再問一下，會不會有學生看完這些展品，跟住會做一些額外關於視覺藝術科的一些行為？	
T1	……（思考）如果單單只是說這個 project 我不肯定，但是在平日教一些 digital arts 的課題的時候是會的。即是例如他學了一個 apps ，他會做一些其他的東西 show 給你看，無論是面對面衝過來給我看，或者他們在網上面 post online ，你都會看到他們延伸着自己的學習。	A9

38:03

問	明白，那麼您對未來學校學習環境的發展有甚麼計劃嗎？例如運用數位。	Q10
		R2
T1	有些甚麼的計劃……（思考）在環境的發展？即是你的意思是軟件、硬件的配套嗎？是不是這個意思？	A10
問	軟件和硬件配套也可以提到，譬如你們的 setting 又會不會有 planning ？	
T1	因為我們知道會有遷移去新校舍的消息，那麼期望在這六、七年發展的事情，但是都知道這個比較遠一點。即是當去到新校舍，當然校舍會大一點和新一點，亦都希望可以做到你剛才所說的。即是剛才你問我為甚麼我們做不到，例如展示後有一些活動給他們做，其實我本來都沒有想到的，但是你這樣問我，我又想了一下。那個原因就是這樣，就是太小了！你又要即時要遷入遷走，這些全部在時間上都十分有限制。我希望如果去到新學校的時候，即是有一些環境我們可以有一些定期一點的展區，即是有一些地方可以 fix 一點。不過這個是之後之後才說，因為我們現在都要和這間學校一起去共存，即是一起去做。那麼我想是其實如果在 project 、 mapping 、 projector mapping 或者 projection 這一類型的 art pieces 成功的話，其實我們可以再去發展多一點。即是我們現在只是用得很少，你看到我們的 project 其實都只是一個平面，即是一個單幢的平面，但是其實 projection 可以玩很多東西的啊！你可以玩錯視的 projection 又可以，你可以玩一個空間的 projection	A10

又可以，即是你可以 **create** 學生一個空間就好像一個空間那樣子。那麼所以好像例如今年即將……老師（T2）又買多了幾部 **projectors**，有一些是短頭的，即是去突破一些限制，即是例如說……你可以簡單一點來說就是在一些硬件上面的升級。即是我用 **projector** 來做例子，**projector** 有一個問題就是你試想想放在地下射上去，但是其實小朋友在前面看就會全部遮住了，即是那些黑影會遮住了，即是好像你教書你的頭遮住了光，其實你後面那些小朋友是看不到你的影子，那麼其實在展示上面是有問題的。你明不明白？即是在 **artwork** 上面的展示是有問題的，你沒有理由那些人一邊看一邊遮住了那個畫面，例如我們看到這個問題之後，老師（T2）馬上就調整了，在今年他又已經買了一些短頭的 **projectors**，短頭即是……（思考）那個角度是可以令到你即使在前面走過也不會遮到，即是你在前面移動其實那個投射的角度是特別一點的，所以令到你是不會遮到那個影。這些就是硬件的升級，你因為發現了這個問題，然後你要升級這件事，是吧！我在想除了這些之外，最基本都是在學生的學習上面，即是我們不是要弄到學校整個 **exhibition** 那樣子，即是我們的宗旨是希望他們透過學習，然後但是其實這個是一個展示的方式，例如剛才提到的 **apps**，那些 **apps** 都會轉變，有新的東西，所以在小朋友自己的學習上又要有不同，我們的課程又要有更新，那樣才可以配合之後的展示。如果你需要帶回到公共空間去展示的話，因為我們展示的是他們的學習成果，所以要有學習成果，首先他們的學習都要有進步或者有更新，或者他們會持續去做一些不同的創作。那麼所以我們的展示才會成功，因為歸根究底他們的展示都是他們的學習成果來的，那麼所以在教學上面我們也要提升，是的，就是這樣子了！

Appendix 2: Interview Script Teacher 2 in Chinese

Interview Date: 2022.02.19

Interview Time: 3:00 p.m. -4:15 p.m.

Interview Method: Online by Zoom

Interview No: T2

0:29

問	(講述同意書的內容)	Q1
	你任教了多少年視覺藝術科？	R1, 2
T2	……(思考)多少年呢？差不多三十年都有了，三十幾年。	
問	好的，三十幾年。	A1
T2	你說多少年我計不到(笑着)，三十多年。	

1:08

問	請問您在這所學校任教了多少年視覺藝術科？	Q2
		R1, 2
T2	我教過另外一間小學，一間小學在屯門的，那間學校教了六年，是小學來的。接着三年就教了中學，然後這裏就教了我想一想……(思考)教了多少年呢？99年在這裏教直到現在多少年？二十三年有沒有呢？(笑着說)二十二吧？二十二或二十三，99年開始教。	A2
問	您教了很長時間，99年到現在。	
T2	是的。	A2
問	你是一直教視覺藝術科嗎？	
T2	我不是的，我甚麼科都教過的。中、英、數我也教過，其實我主修是 Art，如果 PGDE 副修是 GS，我有 GS 的，有教過。但是過去這十年，在這十幾年我都是只是教 Art 的，即是對小學來說全部教 art 的是不多的，我是其中少數之中的少數的其中一個，過去這十幾年我只教 Art 的。	A2
問	所以你現在在這間小學是專科專教的？	
T2	是的，已經十幾年了，十幾年了！但是之前其實我有教過英文、中文、數學，甚麼都教過總而言之，是體育和音樂沒有教過的，其他甚麼都教過了。	A2

3:02

問	您在這所學校，會如何形容這所學校的學習環境（譬如視覺元素）？憑着你在這所學校已經教了二十多年，你可以形容一下它的改變嗎？	Q3
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		R1
T2	<p>好多改變的啊！如果你說二十多年，如果你問我的學校的學習環境，因為其實隨着時代的不同，學生不同，那麼早期我來到的時候，其實這間學校是面臨倒閉，因為那時候是沒有學生的我們那邊。但是一個潮來的，就是當時九八年、九七年的時候，因為九七的時候學校都已經準備差不多倒閉，因為只剩下六班而已。那麼但是九七、九八年代的時候，突然中國大陸很多小朋友下來了讀書，因為很多爸爸娶了一些內地的太太，就生了很多小朋友，或者是有一些回來了團聚，那麼那一段時間就是九八、九七、九九的年代是很多中國大陸新移民的小朋友下來了。那麼我們的學校就順勢，一開便開了十班。那麼我也是這個形勢我就有一份教職，不然我都沒有工作了（大笑着說）。但是那時候的學生開始其實有一些是超齡，有一些大的還有大部份是中國人來的，大部份他的背景都是在中國內地讀書，英文不太好，但是其實挺乖的，很多都乖的，因為超齡了還有純品一點的。頑皮的就很頑皮，但是大部份都很純品的，那麼他們那時候家裏不是管得太嚴的，或者爸爸都大年紀，所以他們經常都很大機會留在學校做創作的。即是我能夠帶着他們做創作。還有當年我們的學校經歷一個很沉寂的時間，那麼我來到的時候其實我自己本來已經教了很多年書，在美術方面也有很多的經驗，所以我一來到的時候就可以帶領着藝術很多大型的創作，一帶便帶了出來！那麼令到整間學校其他老師都沒有想過有這些東西，他們當時不知道原來 Visual Arts 可以做到這麼大型的，那麼就一直帶領着，學生也做得很開心，老師看到我們做得這麼開心，也有大量的老師加入來一起玩。當年有一個很好的拍檔，是現在的校長，我們兩個當時也是好拍檔，帶領着學生做了很多的創作。但是那時候因為亦都是藉著當時應該剛剛課程改革的開始，如果你看背景，就是第一次學會學習那個年代的開始，有很多新的元素又說是社區為本，怎樣用資訊科技，當時很害怕學生不懂得使用資訊科技，很害怕的，後來原來學生是運用資訊科技來打遊戲的（大笑着說）。剛開始的時候就很害怕，但是現在的小朋友就躲在家裏不用出來了，那麼但是當時又擔心那些小朋友不懂得使用資訊科技，還有很多新的教學法在當時出了，例如社區為本和專題學習，一大堆的。如果你看看學會學習的年代，當時剛剛課程改革所以很多新的東西出來，我們便順勢收了一些新的東西，就快一點有新的創作。教院亦有很多的 program，教院又舉辦我們便去參加，那麼當時社區為本的時候我們就做得很好，那時候還有最早期的認識了教院視覺藝術教育的教授，其實是 HKSEA。HKSEA 的一些展覽我和校長便帶領學生做一些展覽，教授便看中了我們的學校的展覽，就有一些震（笑着說），跟着便認識了我們。從二十多年前的展覽就開始認識我們，那麼便很熟直到現在。</p>	A3
問	是的。	

T2	<p>後來慢慢地轉變，雖然我們收了新移民，但是越來越少，到了零幾年的時候開始越來越少，當時的年代就說殺校了。殺校的那段時間我們的學校就得到了一個契機，說我們要收一些南亞裔，於是我們都說好，收了一些南亞裔。當時的南亞裔其實都是挺慘的，他們是沒有書讀的，有一些學校又不願意收他們的，那麼我們便專收南亞裔，收了這班南亞裔回來後環境又不同了。他們又有另外一種做法，因為他們的表演慾很強，你說他創意就不是很強的，表演慾很強還有一些真的很厲害，所以有一段時間是夾雜了新移民和南亞裔兩批學生做了很多東西，當時我們做了很多巡遊都是他們兩批學生：南亞裔和新移民的學生，即是本地土生土長的我們不到，說真的我們不多。那麼那段時間零幾年是一零年左右，後來內地學生越來越少，就全變了南亞裔了這樣去發展。但是到了這幾年，我們發展了很多，其實我們覺得自己是首先做了巡遊藝術的，有巡遊藝術發展至綜合藝術，還有我也帶領了公共藝術，我們公共藝術其實也帶起了很多……我覺得很多學校是停了我們說之後也做，那麼巡遊藝術也是，我們帶很多學校去做。到了這幾年其實開始說資訊科技、說 STEAM，說 STEAM 的時候我們便開始想一下在 STEAM 方面做些甚麼，那麼這幾年我們便開始去探討，由老師（T1）……老師（T1）來的時候，三、四年前，三年前他一來的時候我們便開始用資訊科技去看一下我們能做些甚麼，就是與 STEAM 的關係。因為再早幾年，五、六年前開始當梁振英特首第一次說要撥款在 STEAM 給小學的時候，你看到其實有很多政策都改變了我們 Visual Arts 的，那麼就有一些撥款來說這幾年推動 STEAM，那麼他是推動甚麼呢？視藝科當然有一些回應，我們真的需要回應一下的，我們都需要看一下時代在做甚麼，雖然我教了這麼多年，都是希望要與時並進，這一樣是十分重要的！其實無論你教了多少年，如果你不知道這個世界再發生甚麼，其實你的教學都是會停留在那個位置的。即是學生每一年也不同，如果你教來教去都是這些東西的話就會很 out 的。那麼跟着我們便運用資訊科技，這幾年其實是開始……老師（T1）來的那一年，我們早一年便開始發展，他來的那一年便是全力發展，但是最慘的是這幾年的停課，他來教了一年之後第二年就已經我們想深入發展，卻已經停課，一直停課，教一會兒又停課，就是這個階段了！直至發展到現在，本來我們在想着下學期有一些東西會做的，卻又遇上停課，就是這樣了。整個環境的改變就是這樣了。</p>	A3
問	明白，你剛才提到學校所收的學生會不同從而學習環境也不同，想問一下以前的學生作品會不會展示出來的？	
T2	<p>會！我們會展示出來的！展示學生的作品其實每間學校都會有的，那麼你說我們多不多呢？我們是弱的，我們走廊裏面其實都會有一些畫架去轉換的，都做得不是太好的。譬如我們的 website 其實是因為最大問題就是最懶惰的是我，轉換 website 裏面的圖片是轉換得很慢的，如果你上網看過我們的 website，很害怕的，很多年也沒有換過(大笑着</p>	A3

	說)。因為有一個很懶惰的主任老師在做這一件事就很出事的。但是過往其實我們展示是有幾方面的，一是表演，我們有很多的藝術作品我們表演出去的，有一些就會在外面展示，那麼過往這麼多年，很多時候我們是參加，譬如在早期的時候我們參加了很多 HKSEA 的展覽，在大會堂展覽，在圖書館展覽，在 HKSEA 會址賽馬會白田邨石硤尾那裏，會參加一些展覽，或者教育局的展覽我們也參加的。這個展覽是我們會參加的，我們會派一些學生的作品出去，那麼我們自己 website 會有，還有在學校裏面的牆壁，我們很習慣把作品全部貼在走廊，那些老師很喜歡貼作品在走廊的，還有我們學期完結之前有時候……前幾年我們有自己學校的展覽，即是學生的展覽我們是有的。還有這幾年的做法就有一些不同了，這幾年我們做了很多一些共同創作的作品，就一起在禮堂那裏展示，即是我們會有的。	
問	我想請問一下以前展示的作品是比較傳統的嗎？	
T2	是的，傳統的，例如繪畫、雕塑，你能放在這裏便放在這裏的一些，放在這裏或是放在牆壁上。	A3
問	近幾年你提到推動 STEAM 教學，作品會否加入電子化？	
T2	如果你說是電子化的展示，我們都是再做一些很初步的東西。首先你要定義一下你的電子化，電子化是不是用科技？Digital Arts 是不是運用電腦去製作就叫 digital？	A3
問	數位藝術是運用一些 digital technology 來做的。	
T2	因為我經常想 Digital 是數碼、數位，是運用數據，是電腦才有的數碼。	A3
問	是的，例如運用電話、電腦、software 這些。	
T2	例如譬如我用 LED 燈，這個不是 digital 了。	A3
問	是的，這個遠了一點，這個並不是。	
T2	你所說的 digital，有時候我們有一些裝置會用 digital，製作過程裏面會用到電腦、iPad、software 來做的，那麼這幾年我是有的，有做很多這些的東西，有做一些不多的，因為這幾年我們能做的東西很少，即是你說 display 出去，最大型的那個就是上年……二零年的 Halloween，我們做了一個很大型的 display，那麼這個是最大型的了，我可不可以 share 給你看？	A3
問	好啊！	

16:31

問	請問學校需要有甚麼軟件和硬件的資源？可以以展覽作品事例作解說嗎？	Q7 R2
T2	（展示簡報）你看一下我們做的 digital，其實這個都是的，這些都是 digital 的。這些譬如我們會用 projection art，其實有一些叫做光雕，我	A7

	們做了很多這些。譬如我們看這個，因為這個很光可能看不到效果，其實這個是運用了 software 來做的，跟着還有這個，（指着簡報）你看不看到這個？	
問	看到！	
T2	<p>你看一下貓那裏，這個貓的作品我再播一次給你看，（播放影片）其實這些就是我們運用 software 來做的，為甚麼我會說這個作品，因為我們 send 給學生看，因為做的時候學生其實是在家中的，我們是透過 Zoom 來教他們的，他們的畫這些貓是他們畫的，這些老虎他們畫的，但是我們使用一些 software 來幫它填色，那麼這些就是數位藝術了。這些是展示，那麼這些我們後來都在學校展示，但是要展示這些其實用 mon，或者是 projector，那麼所以現在暫時如果你說做數位藝術的展示，如果我們需要展示都是用這些方法的。（展示簡報）這些都是數位藝術來的，這些動畫……學生就畫了一些動畫在一些名畫上面，我們本來的做法其實是怎樣的呢？那幅名畫我是 print 出來的，用彩色 printer print 大張的，然後運用 projector project 你看到的那些動畫上去名畫，即是我們是在做這種玩法的，你明不明白我的意思？即是那幅畫是實體來的，畫是實體的，跟着我們展示的時候，其實我們運用 projector project 這輛車和這些小鳥在畫上面。那麼這個就是我們的展示，我們有做過這個展覽的，即是有給同學看過的。都不是叫做展覽，這幅畫是莫奈的蓮花，那麼這幅蓮花就是一幅真實的畫來的，但是我們用 projector project 那些魚上去，現在你看到這個是不是的，這個只是把動畫放在話上面而已。實際在做我們展示的時候，其實學生是看到一幅畫，跟着我們再開啟 projector，然後這些魚 project 在畫上面，這個就是我們之前做了的東西。另外這個都是的，這是真實的一件大概三尺高左右，不是！四尺高的一塊石頭，這塊石頭大約四尺高四尺闊左右，不只四尺高，六呎高左右，六、七尺高了，大約四尺闊，這塊石頭是半平面半浮雕，然後我們的學生就用一些 animation 的軟件畫了一些的程式，畫了一些動畫。你看到的這個只是動畫來的，其實實際上我們展示的時候不是這樣子的，展示我們是運用 projector project，看到一些綠色線，就是這樣子了。這些就是我們正在做的藝術創作，那麼這個都是數位的，這個我們曾經用在了跳舞表演中，（播放影片）這個其實是一名學生畫了一隻跳舞的公仔與他自己一起跳，你看到中間會有一隻公仔出來的，這一小段沒有了是因為他沒有做到。是的，再看一次！他先畫一個動畫，就是畫了跳舞然後和自己跳，這些畫是這位戴眼鏡的小妹妹畫的，那麼他就要跟着自己所畫的公仔跳舞，但是那個公仔不是我後期加上去的，其實我是運用 projector 投影到那塊板。你不要想着我先後期加上去的，不是的！其實你看到那個學生有擋過那些光，這位小妹妹的手，那麼你能看到的啊！其實我是運用 projector project 的，你看到那些光在她的手出來了，這個我們後來在上年六月的時候，最後我們做了一個很大型的表演，我們都</p>	A7

	<p>運用了這個方法做了很多的動畫，然後和舞蹈藝員一起互動，一起跳舞！這些就是我們展示的方法，有時候在表演那裏呈現，有些就可以運用 projector project 出來，你看到有些同學在這裏看着，其實就是在玩這些，這個都是其中一種來的，這個都是 Projection 的藝術。（播放影片）然後這個是很高的，很慘的！因為學生不能看，為甚麼呢？因為我只可以在夜晚做得到，現在是六點左右，因為需要天變黑了才做到，學生就看着我 set up 好，裏面的東西就是他們所做，但是我只能錄影給他們看，你看到需要黑漆漆才能做到。是的，影片中的這個是 Miss 來的，她就是很開心自己在這裏跳舞，不知道為甚麼？（笑着說）這個其實是一位 Miss，並不是一位學生，她看到這個很開心，然後走過去跳舞，很開心的！但是很美麗的因為我們夜晚做，是很漂亮！你看到那些動畫是他們繪畫的，這些是他們的創作來的，那麼我就把他們的創作全部放在這間屋上，用 projector 全部投影出來。那麼這個都是一個 digital 的，因為學生做所有這些公仔都是運用電腦做的，透過電腦和透過 software，就運用 projector 投影到實物，我們就正在做這些藝術創作。</p>	
問	我看到這間屋好像兩層樓這麼高？	
T2	其實這個十六尺，還未到兩層樓高，大約十六尺。很高的！但是其實兩層樓高的我們很簡單便能做出來了，別人就需要做得很辛苦。	A7
問	這個很簡單嗎？	
T2	<p>很快的，很容易做而已！這些東西我一會兒便能做出來了，讓我給你看看最大型的那個。（播放影片）最大型的話一定是這個了，這個畫面是幾十呎的螢幕，多大呢我都不記得多大了，總而言之讓我看有沒有圖片顯示到多大，讓我放大一點給你看！你看看這段片挺長，你想想一下如果你在禮堂這裏，黑漆漆地看到你也挺開心的。還有你看到每一個公仔其實是學生畫的東西，但是我們透過一些程式令到它們可以移動。他們畫的時候是一個平面的作品，那些手手腳腳我們是運用一個很簡單的 software 令到他可以移動，那麼這個就是全校學生，片段十分長，全校學生的作品都在這裏了，這個是我們最大型、最好玩的、最開心，因為你能想像到學生看到自己的作品在這裏飛，其實是十分開心的。數位藝術，老師（T1）做了很多。這個是我們的表演來的，說到數位藝術這個勉強是的，當中有機械人的 program，program 了和學生一起跳舞，那麼就有機械人和他們一起跳舞，我認為比較牽強的，要 program 這些機械人和他們一起跳舞。</p>	A7
問	Programming ？	
T2	<p>是的，這個都可以算是的，但是學生參與便少了一點了，學生能一起做 program 就還未到這個階段，比較多是老師所做的，不是太合適。這些其實是用科技藝術而已。我不知道這些叫不叫數位？這些只是用一些發光的燈而已。（展示簡報）去到這裏這些是數位來的，運用科技 project 一些東西，你看到那些 projection，這些畢加索的畫作是學生畫</p>	A7

	<p>的，還有我們 project 一些畫面的上去，這些就是數位藝術了。你看到那些穿梭機、小鳥、恐龍，突然會出現一隻恐龍，這些就是數位藝術了！就運用 software 來控制它們，然後便能 project 出來了。這個都是學生所畫的畢加索臉部就 project 了出來。這個的展示形式就是一個表演來的，其實我們有很多種類，有一些是作品，譬如我放一件畢加索的，然後學生在這裏看，但是這一個表演形式我們已經配合了一個表演，將這一個數位藝術配合一個其他的藝術，譬如其他的藝術類型，例如跳舞、歌唱是一起綜合了在一個藝術裏，即是運用了數位藝術的展示。這個已經是另外一個方法，你係能看到這個公仔嗎？</p>	
問	是的，看到啊！	
T2	<p>電腦可能有點慢有少少問題，你等一會兒，我再開給你看。這是新買的，這個電腦很 powerful 的，用了兩個星期左右而已，這部電腦是全校最厲害的，是用來做藝術創作的，學校很多的影片都需要靠這部電腦來剪片，新買來做這一件事的。（播放影片）你看到其實都有一些動畫在這裏，不是看得很清楚，但都是學生的作品來的，你看到有一些動畫在窗上面，你看到嗎？不是太清晰，但是這些又是他們的創作加上配合他們的表現。這些又是他們的創作加上表演，好了！又轉下一幕，學生邀請朋友，這個朋友是動畫來的，他邀請一個朋友出來這個朋友是動畫，那麼這個表演就是把他們的創作和現場的表演混合在一起，然後跳舞便一起跳，有些是很多學生在這裏一起跳，有些就是動畫在這裏跳，有一些是真人在這裏跳，這個就是透過表演來做展示，好的，就這麼多了！你看到我們顯示方式是有很多種。</p>	A7
問	<p>好的，明白！你剛才展示了幾個事例關於運用 Projection，你提到很容易便能做到展示，即是 backdrop，請問你運用了甚麼材料或是需要用多少時間？</p>	
T2	<p>我是運用 foamboard，foamboard 很快的，那個形狀是我 cut 的，因為小朋友不能運用剃刀，因為其實那個形狀很簡單，我只需 cut 幾下，盡量運用整塊，其實後面有一些支架都是用 foamboard 支架，那些貼紙就是學生貼的，那間屋其實有一些黑色的線條，那些其實是一些貼紙來的，貼紙就是學生貼的，大約一小時便貼完了，很簡單。那麼跟着走我想做這個東西大約兩至三小時就能夠 set up 了，我想我三個小時便能 set up 了，很簡單！</p>	A7
問	請問只會是視覺藝術科老師做，還是其他的老師、同事也會一起做？	
T2	<p>其實你剛才也看到跳舞的那位老師不是視覺藝術科老師，但是她那一天就留下來一直看，當天有校長在，有職員 technician，有兩位資訊科技的同事搬搬抬抬，搬 projectors、搬其他東西、set up，我、老師（T1）和校長也在，還有一些其他老師也在，很多人幫忙的，甚麼人都會幫助，即是他們喜歡就會幫助。其實我們 Visual Arts 由 20 多年前開始，我們每一次表演都需要用很多不同的人去幫忙，所以有很多老師都幫忙，我們有些表演甚至差不多半間學校的老師也需要出動。</p>	A7

問	請問在學校校園的公共空間中展示學生數位藝術作品有何目的？例如你所提到的大型展品。	Q4 R1
T2	<p>你說甚麼年代？最大型的已經是很多年前了，現在的不是很大型，如果根據我的同事整天說，現在的同事看到我的東西沒有甚麼興趣了，「沒有甚麼興趣了，都不夠大的。」即是已經不是一些很 surprise 的東西，有些同事甚至覺得是很日常會發生的事，嘩！好像很大間屋，你們可以看到很大間屋！他們看其實已經是很渺小的，很普通的，很日常的。如果說我們最大型的創作是很多年前尖沙咀的巡遊，你指的是做數位藝術做這麼大型……如果這幾年要說數位藝術最大型的就一定是全校去製作的動畫，即是禮堂的片段，Halloween 的那段短片。為甚麼我們要做那個呢？如果說我為甚麼要做這麼大型的動畫呢？第一件事是因為我們正在發展資訊科技，在發展 STEAM，我們正在發展透過科技，即是這五、六年間我們都是在做這一件事，透過科技幫助學生去做創作，第一件事幫助他做創作，第二件事是透過資訊科技有一個嶄新展示的形式，譬如做這麼大 projection，用三部 projector 和三、四十尺的 mon，這麼大的展示是給學生一個嶄新的觀賞，即是刺激他們對藝術的興趣。為甚麼我們做這麼大型？即是都是這個原因，大型的東西是令到學生會更容易投入、更能掌握到，還有我們有全校的作品令到每一個學生，每一個學生（強調）可以 involve 入去。因為那個時代就剛剛是開始能夠讓學生上課的時間，即是這個應該是兩年前的 Halloween，二零年的十月，當時剛好復課，但是剛做完這個 Halloween 又停課了，又停課了。所以在那段時間我們覺得有機會又會停課，跟着之前其實用 Zoom 來教其實都很苦悶的，大家都教得很沒有興趣，學的又學得沒有興趣，教的也教得沒有興趣，那麼學生一回到學校，就馬上做一些很大型的東西，再加上資訊科技，所以我們做一個很大型、很開心的，就做了這一件展品出來。即是有幾個目標的，總結一下我所說的，第一個目標因為這麼多停課，希望有很大型的刺激能夠讓到學生回到這個我們學校，我們學校都是比較注重視覺藝術，再加上我們在這幾年正在發展資訊科技，也在發展用 projection 的藝術，這幾樣事情加起來，所以我們做了這麼大型的創作，這個是最大型的，那個 size 是最大大型，size 一定是最大型，involve 全校的學生當然是最大型的。但是如果你說校內最大型的創作，最複雜、最厲害的可能就不是這些了。</p>	A4
問	除了大型的展品，展示學生小型的數位藝術，最大的目的你認為是甚麼呢？	
T2	我認為是令學生有一個新的觀賞體驗，為甚麼我要 project 到畫上呢？其實這個展示方式不是我們日常很多學校在做的事情，亦是學生沒有	A4

	機會……他要有機會做這件事情，你要真的去到藝術館，你現在去看一些 projection 的藝術可能需要用幾百元去看，最近的是吧？	
問	是啊！是啊！	
T2	教授經常說我是山寨版，在做山寨版的 teamLab ，是真的，我是在做山寨版的 teamLab 。是有點像但是和他們差一段距離，不是說做不到他們的事，不是說做不到，而是他們的東西需要 set 很多 projectors ，是需要很多的錢去 support 你，如果要 support 我們去做這些東西，是一定要觀眾人數要很多，即是要很多人去欣賞得到，在疫情裏面我們不會做這件事。但是我們做小小的山寨，教授說我們做山寨，其實都 OK 的！令學生不需要出去看付很多錢的一些展覽，因為我看到之前有一些展覽，我和校長都說一起去看一個展覽，數碼的，不停投影的那些，原來幾個月前就已經需要買票，跟着我們又約定時間那天，又說不可以，那天又說不可以，原來是幾個月之前要買票之後再 book 時間去看。前幾個月都好像有一個展覽在香港，但是都差不多三百元一張票，我後來不記得去看。我們的學生怎能夠付得起三百元一張票，那麼我們在學校……還有他們沒有甚麼機會爸爸媽媽會帶他們去看這些這麼新的多媒體的展覽，我想他們應該不會去到，所以唯一辦法就是我們在學校自己做一些少少山寨的，做一些出來玩一下，打開他們的眼光，原來藝術創作不只是掃描、畫畫、雕塑、陶瓷和做手工藝，原來我們利用資訊科技可以做到很多很有趣的創作和很新的展示形式。那麼他們未必知道的，但是現在在學校做他們便知道了！跟着我們都會解說，雖然我們帶不了他們去看，但是我們會有一些片段給他們，然後讓他們自己去嘗試一下，其實都挺好玩的，讓學生感受過新的觀賞認識。	A4
問	除了豐富經驗之外，以這些展示的形式，你還有沒有其他想在視覺藝術科能夠做到的目標？	
T2	展示是為了吸引興趣，但是裏面其實他們是……這兩年我們是老師（T1）是教了他們很多 software 去做繪畫和動畫，我們做了很多這些事情，其實學生都接觸多了數位藝術。我們亦有做過一個 promote 就是……上年我們做過一個相片，拍一張相然後在上面繪畫的一個比賽來的，這個都是一個數位藝術的比賽來的，我們希望他們透過數位藝術，我還是說兩個目標，他們利用數位藝術來做創作，這個是第一個目標，第二個目標就是他們打開眼睛，學懂原來數位藝術可以用一些新的展示方式，觀賞的方式不同。	A4

追問

45:23

問	請問會不會同一時間在校園內出現不同年級的學生數位藝術作品？	Q3
		R1

T2	當然會！好像我剛才說的圖片畫畫，先拍一張相片，然後在上面畫畫，這是我們全校的比賽來的。我們把它貼到整間學校都是，貼到整間學校都是，樓梯和走廊位置也貼滿，那時候是停課，我們做的時候是停課了，他們一回來就看到他們的作品在走廊上，全部都是，我們把所有 print 和貼出來，六個年級都會有。	
問	請問會不會有甚麼事希望年級和年級之間可以做到的？	Q4
T2	可能只是深淺度而已，就譬如剛才的那個都只是深淺度，沒有說特別的，但是我們說課堂的話當然有不同，在數位藝術相當然有不同。在課程裏有不同，但是在展示來說我們有沒有甚麼特別的分開，展示我們是沒有分開的，但是可能在教材和教案裏面我們當然要分深淺和假不同的東西。但是好像剛才所提及的比賽之後展示的，是真的沒有分，我們把所有的畫貼出來，無論好或不好我們也貼的。記着一點！很多時候我們的展示，我們貼的數位作品或者甚麼作品也好，我們未必選擇最好的，盡量大部份都展示出來，好和不好也展示，這是我們學校很喜歡做的，不是一定：「啊！最好的三張拿出來。」並不是的，我們很多時候全班都貼出來的，所以我們要利用門口和走廊來貼，門口、走廊的牆和壁報，就貼！貼！貼！全部貼出來！就是這樣了。	A4

47:36

問	請問哪些因素促使您運用數位藝術在校園中展示學生的藝術作品？	Q5
		R1
T2	其實我們剛才也有提到藝術，我們現在所謂的藝術教育，很大部份我們現在在教的是很傳統的，即是傳統 fine art 的東西，例如掃描、繪畫，這些基礎的視覺元素和組織原理這些是不能沒有的，但是之外我們也會看到現今的藝術創作不是只是這樣時東西，很多裝置藝術、數位藝術，很多這些藝術作品是用不同的方法來做創作的， STEAM 在藝術中……我們要思考的是科技怎樣能夠帶到新的創作。在今時今日的藝術家，他們不是一個藝術家，他們可能是科學家來的，他們可能是工程師，可能是 programmer ，但是如果是有一個有美感和懂得創作的，加上他有一個創作的技術，或者是資訊科技和科學的技術，其實現在這些人是最厲害的。如果你看 Netflix ，即是我經常都叫他們看 Netflix ，有一個談藝術的節目，你可以在 Netflix 找到一個紀錄片，其中有幾段……最近都有說日本人，剛剛這幾個月才推出來。大概是藝術的甚麼甚麼，我不太記得。其中有幾個 artist 都深刻的，其中一個 artist 是以色列的 professor 來的，他的藝術創作是用一些蠶蟲來織一些蠶，不停自己在製造，不停自己在製造，那件藝術作品是一直在變，一邊	A5

	<p>織、織、織擴大，即是很厲害的。其實很多的藝術作品，現在很老實很多時我們都是運用到科技，有些經常說用 AI，怎樣用科技來配合創作，這個現在是一個大趨勢來的。這是一個很大的發展空間，因為有了資訊科技，有了 digital arts，其實發展藝術的力量更大，可以做到的東西比以前是更加豐富，可能更加互動，能夠做到與觀眾互動，可能做到很多很新的，在發展藝術中，作品在自己發展中。其實這個是一個很大的趨勢，我們不能再走回頭路，藝術只是掃描和繪畫，原來現在藝術……雖然我剛才說的一段說話，傳統藝術我們要有的，但是在傳統藝術之上，我們都需要學很多新的科技去做一些新的創作。如果有新的東西才可以刺激你新的思維，才有新的創意和作品出來的啊！不是做來做去都是這些東西。這個契機就是大趨勢，其實大趨勢就是這樣，現在這個時代就是在流行着這一樣東西，再加上這幾年在推動 STEAM 這一樣東西，STEAM 的東西其實就是……即是我們現在都在推動的東西，現在他復課，如果復課之後我都是在想一些運用機械的，在上一些運用機械來畫畫的東西，都在嘗試中，但是看一看何時能夠復課。即是我又準備試一些新的東西，在試一些新的東西！</p>	
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52:11

問	你認為這所學校的空間大還是小？請問在學校的公共空間中展示數位藝術需要考量哪些因素？	Q6
		R2
T2	你指的是甚麼？學校校舍嗎？	A6
問	是的，校舍。	
T2	校舍當然小啦，全港最小的校舍差不多是我們了。	A6
問	因為是十分舊的校舍？	
T2	是的，沒有很多了。如果你說最小的校舍，我想都算是那類型的校舍了，因為是火柴盒校舍我們叫，火柴盒校舍就是最小的，很小，超小。這樣阻礙了我們的發展，真的嚴重阻礙我們發展，連一個禮堂也沒有，因為我們做很多表演藝術，很多藝術是需要空間的，我們沒有空間。	A6
問	你剛才展示萬聖節和表演藝術的那個地方是禮堂嗎？	
T2	是的，是禮堂，有些人叫雨天操場，我們為甚麼叫禮堂呢？有些學校叫雨天操場，有些叫禮堂，那麼我們就叫禮堂了。但是那個是最大的空間，還有超級多柱，基本上四圍都是柱來的，很多位置是看不到東西，看不到，看不到舞台的（笑着說），很多位置是看不到舞台的，很差的總而言之。如果你看到大屋，大屋是在操場的，是籃球場來的，project 屋的那裏是籃球場來的。你來過我們學校都知道很小吧？	A6
問	是的，是的，有來過。	

T2	比起千禧學校相差千倍，相差很多很多。所以我們沒有了禮堂是重要。	A6
問	請問在學校的公共空間中展示數位藝術需要考量哪些因素？例如你提到的空間小，還有沒有可能是人力、物力方面的因素會阻礙或推動？	
T2	首先展示學生作品，第一件事需要有沒有學生作品給你展示，第一件事！即是先要製作一些好的作品，這是第一件事。第二件事當然是你要看看自己用甚麼方法展示還有怎樣展示，譬如你是長遠天天放在這裏定期去換，即是令人走過看到或者是特定的時間，例如展覽會這樣去看。譬如我們 Halloween 那個，只有一天做而已，沒有理由第二天那塊 board 長期放在這裏，那麼就其他堂都不用上了，體育堂都不用上，操場是不能出去的，因為我封了操場的那個門，大家需要在罅隙走，需要用其他位走。即是有些東西……譬如我們的展示你要看看展示些甚麼，看一下空間、時間……是的，空間！時間！我們都十分重要的。那麼有些東西你都是放一天就完，就需要拆掉，就不是長遠的。那麼有時候我們有些畫，例如我們日常的創作我們可以貼在牆壁上，有些是長期展示的，我們都有一些例如立體作品是我們長期展示出來的。那麼就要看你夠不夠足夠的空間和作品夠不夠堅固給你天天展示，亦都有一些作品是放在櫃內，譬如有一些陶瓷作品我們長期放在櫃內，但是就未必是數位作品，數位作品需要展示其實有一些問題的。一是你利用數碼的製作然後 print 出來，這個是一個展示方法，譬如我們做完比賽之後 print 出來的。另外一些我們 projection 那些不能長期在這裏，即是在一個特定的時間你才做到，要考慮這些因素。有不同的形式，不同的時間，那麼你就要看你創作的那件是甚麼，你要看怎樣去展示。	A6
問	你提到數位藝術會運用 digital 和利用 projectors，這些通常會展示多少天？	
T2	……（思考）我們今年因為其實很老實，這兩、三年是一個不正常的時間，你知道他們有時候上學有時候不上學，有時候想學但回來一會兒，其實是一些不正常的時間，那麼我們的數位藝術展示其實很短的。因為其實他們上學都不是很多日子，上學都不是很多日子，你想想這三年她上學多少天，在這兩年多。好像現在又停課了，你都不知道何時才能回校上學，其實他們上學的日子是很少，那麼所以很難，而且數位藝術除非你是運用電視來展示，即是運用電視來展示，長時間放在這裏。我們暫時都是很短時間，可能展示完做完後便收起，看完就收起，一天或半天而已真的，有時候兩天，大多數都是一天，因為你阻礙了地方，因為我們地方少，我們也不是做了很多可以展示的數位藝術，其實 projection art 都是在表演做過，有些都是一天展示就沒有了，即是很快便沒有了，沒有固定在這裏做。	A6
問	譬如你剛才展示操場的大屋？	

T2	那個只有一晚，是的，那個東西可能第二天便吹倒了，不是很堅固的，即是我只是 set up 了，跟着馬上拆掉了，不會很堅固在這裏，如果堅固我就不會這樣做了，不會長期放在這裏，還有那個操場第二天便需要打籃球，那個操場是上體育堂的，全部體育堂便上不到（笑着說），沒有可能，沒有可能。還有那些東西在操場都會爛的，不可以的，一晚而已。所以學生看不到的，他們是沒有辦法看到，學生就無法現場看，都是我們拍片給他們看的。現場看我是想過的，是未來的事，但是你需要等疫症……是真的可以正常了，可以晚上有大型活動我們才能做到，但是直到現在都好像很渺茫，沒有時間和沒有甚麼可能做這些事情。其實這個時間是很奇怪的，很奇怪因為疫症，正常發展一定不是這樣子，正常發展我們是會晚上有一個展覽，即是晚上其他人才來的。	A6
問	你前期提到很容易便能搭建，過程辛苦嗎？	
T2	不辛苦，有多辛苦？這些很小兒科，更加辛苦的還有，是那個巡遊藝術。我們那些老師做了巡遊藝術後，每樣事都說不是很厲害了，整天都說我的東西不厲害，很壞啊他們（笑着說）。「看慣了，有甚麼厲害？還是這樣子啊。」他們很壞的。	A6
問	即是你覺得過程不算很辛苦？	
T2	不算很辛苦？還 OK 的，可接受。已經習慣了，年年都是這樣子。年年都是這樣做，我不覺得有甚麼。	A6
問	例如你展示的大屋只是展示一晚，你覺得值得嗎？	
T2	值得，那一晚我們是成果，是想去發展但是沒有時間，沒有機會給我們大發展，我們只是做試驗來的那晚，其實大發展……但發展是需要等疫情許可，那麼我們便會有大發展。因為你都邀請不到其他人來看，你怎樣可以請人來看？即是我們嘗試過用學生的作品，原來他們的作品可以這樣展示出來，即是這樣來做創作的，世界各地的人都有在做這件事，原來我們學校都能做！我覺得香港中小學都沒有人做這些東西我覺得，我又不覺得有人做，再加上這兩、三年都不會有人做到大型的，我覺得在這麼艱難的疫情行都能做這些，都算是牽強仲還 OK 的。即是我認為現在真的困難的，其他學校又要追功課都很煩，還要做一些藝術創作，未必有很多空間給他們做。	A6
問	那麼你所展示的 projection 大石頭，展示了多少天？	
T2	都是一天而已，但是我們展過幾次的，展覽過很多次。	A6
問	次數多但時間短？	
T2	是的，因為有不同的人來看（笑着說）。因為有不同的人來看，好像遲一點你們的同學來參觀，我又會 set 給他們看。但是學生來看已經全部看過了，他們看過了所以就不用了，不會再 set 給他們看。那麼你說展覽其實都是頂多一至兩天，我不記得多少天了但是不會很長，因為那些東西不能長期放在這裏，不能長期放，那麼你放在這裏就要收	A6

	起，你記着那個地方是不停有別人用的，放學排隊又是它，體育堂也是它，練習也是它，即是你不能放一件東西阻礙着，這個是我們很大的問題。但是暫時數位藝術是這樣子，但是當數位藝術的形式轉變，當然你可以長期放在這裏，譬如我的數位形式是動畫來的，我長期放在電視裏，但電視可能做得比較好，把電視做得比較好看就已經包裝了，可以擺很久，每天放在這裏也可以的，但是問題我們沒有做這一件事，暫時沒有做這件事。因為我們都很多電視了，最近我們都買了八十多吋的電視，八十多吋的電視能夠推來推去，能夠做展示了，可以做數位展示。電視我們可以做到展示，他們的動畫就能……其實有八十多吋其實挺好玩！但我又買了一些新的 projectors 短頭的，都還沒開始用，是的，還未開始用。有一些我是在不停在買，但仍未開始用，現在又停課了，買了回來但未開始使用就停課了。今年都不知道用不用到了，因為上次我就買了三個 projectors 就用來做那個很大的，跟着現在我又買了兩部，但是因為那三部 projectors 就因為要很遠才能投射到，現在買了兩部更厲害的，就是很近距離便能投射很大，很近距離但很大，可以做的東西便多了，學生能夠走到前面不會被投射到。雖然我們沒有錢買 LED 牆，好像內地的，你看內地的表演很誇張。	
問	是的，是的。	
T2	春晚表演很誇張，那些 LED 有地、天空，四圍都是。那麼我們又做不了這些，唯有用 projector 來做，便宜一點。	A6
問	所以其實學校都十分支持可以買到這些資源？	
T2	是的，支持的。	A6

追問

1:07:01

問	展示期間會不會有老師帶領同學去看？還是學生自由去看？	Q6
		R2
T2	要帶學生去看的，不能自由活動。不能自由活動的，因為時間是很緊迫的，所有東西都是需要安排去看的，因為我們只有一天時間，全校這麼多人，一定是要很認真去安排，有分時段。譬如 Halloween 那天，我們本來有 Halloween 的活動加起來，連同其他活動一起去配合，然後去看的。有時候有一些藝術作品……譬如石頭那些就要帶領一些學生去看，即是有一些班就會下去看，即是都不會說你隨便下去看。因為現在的學校不能隨便走來走去，即是小息都不能下去的，你怎樣可以讓他們隨意去看？而且小息很短，所以全部是安排，是很認真去安排的，一定要安排。	A6

1:09:40

問	請問學生對於在學校的公共空間中展示他們的數位藝術作品有何反應？	Q8
		R1
T2	很開心，很驚訝。他沒有想過自己的作品……尤其是欣賞自己，譬如那個畢加索的面部，他做的時候只是繪畫出來，原來出來的效果是投影到臉上，他很驚訝，很開心，還有真的是打開了眼光，「啊！原來我自己繪畫的東西可以這樣展示出來！」，如果不是他繪畫的那些，他們也會覺得很厲害，覺得：「為甚麼會這樣子的？」、「為甚麼能夠投影這麼多東西出來？」、「為甚麼畢加索那塊面部可以不停改變？」，因為那個是不停改變的，其實是一段影片，但是我們投影出來，那塊板本來是灰色的，但是我們投影一些影像上去。是的！很興奮！很開心的！是的！很開心。	A8

1:10:47

問	為甚麼學生會有這些反應？這些反應是您所期望的嗎？	Q9
		R1
T2	是期望之中，我都覺得他們是這樣子的。不要只說他們，我們也覺得很美麗，因為我運用了三個 projectors 其實這樣投影出來是漂亮的，真的漂亮，可觀賞程度是很高的。	A9
問	除了同學有這些表現，老師會不會又有些甚麼的表現？	
T2	都十分開心，開心得十分厲害，那個大螢幕他們拍照拍了很多，他們拍照都拍了不少，自己不停在左影右影前影後影，拍很多的他們，很開心！每個老師都拍照，很開心的！還有很震驚，都是很震驚，但是還是有一些老師說：「又是這樣，年年都有一些新的東西，我們都習慣了，沒有甚麼能夠驚嚇到我們的了。」	A9
問	那麼你遲一點再做一些驚嚇他們的。	
T2	沒有了，沒有驚嚇了（笑着說）。他們都不會害怕了，再看看有甚麼能夠驚嚇他們。	A9

1:12:16

問	您對未來學校學習環境的發展有甚麼計劃嗎？例如運用數位。	Q10
		R2
T2	未來都是繼續發展， digital 都會發展，運用 software 去畫畫已經是我們恆常的事情來的，即是說可能在我們的課堂裏面其實是一定要包含這一件事，一定是有這一樣東西，在恆常裏面、在課堂裏面是有教數位藝術的，這個是一定有的。那麼另外有一些新的項目我們繼續發展，	A10

	未必是 digital 的，我都是在想 STEAM 的東西，即是用科技去幫助創作，還是繼續去想科技怎樣去幫助創作，科技怎樣幫助去表演，怎樣將科技和表現融合在一起，怎樣用科技去展示，用甚麼方法和運用科技去展示，就是這些了。	
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追問

1:13:22

問	從老師（T1）得知學生是會運用 iPad 來創作，請問是不是每位學生都有 iPad？	Q7 R2
T2	因為我們一至三年級其實他們是要用 iPad 上堂的，本來大部份都有的，但是有時候經歷了幾年有些 iPad 自己會壞了，之前政府也給了一批，如果他們是綜援的話，就給了他們一批的。那麼有些就是買的，其實在沒有的話，學校會借給給他們，基本上他們都會有一部 iPad，加上這個疫情，每一個都會有 iPad 上堂，不然就會上不到堂。	A7

1:14:08

問	從你所展示的作品都能看到很強的互動性，例如跳舞、走過去拍照等，這個互動性是不是你期望之中的？	Q9 R1
T2	……（思考）其實我覺得他們會這樣做，我們班學生會很開心，都提到有一位老師自己走過去跳舞，我都不知道為甚麼，你剛才那段 video 也看到吧？我沒有叫她去跳舞的，她自己走過去，開心到走過去跳舞，她可能拍給她的女兒看，所以叫我幫她錄影，但是她很自發性的，看到後覺得很開心，因為她看到很漂亮，很開心！那個老師都走過去跳舞，不要只說學生。	A9