



ISSN: 2230-9926

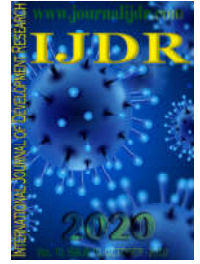
Available online at <http://www.journalijdr.com>

IJDR

International Journal of Development Research

Vol. 10, Issue, 10, pp. 41517-41523, October, 2020

<https://doi.org/10.37118/ijdr.20340.10.2020>



RESEARCH ARTICLE

OPEN ACCESS

A CASE STUDY OF TECHNICAL UNIVERSITY STUDENTS' PERCEPTIONS OF CAMPUS ART IN TAIWAN

***Hung-Yen Li and Chiung-Li Li**

Department of Tourism, Meiho University, 23, Pingkuang Rd., Neipu, Pingtung 91202, Taiwan

ARTICLE INFO

Article History:

Received 19th July, 2020
Received in revised form
07th August, 2020
Accepted 19th September, 2020
Published online 30th October, 2020

Key Words:

Technical university,
Campus art,
Public arts, Design.

*Corresponding author: *Hung-Yen Li*,

ABSTRACT

The purpose of the study was to examine technical college students' perceptions of campus art. The subjects were 384 students from a technical college in southern Taiwan. The instrument was a questionnaire called Campus Art questionnaire consisting of 8 items, which can explain 61.76% of variance and the value of Cronbach's Alpha was .836. It took the subjects a few minutes to complete Campus Art Questionnaire in spring, 2019; the researchers collected the data from the questionnaire and analyzed the data by descriptive statistics and inferential statistics. The results revealed that most of the subjects liked to take art courses, and some of the subjects liked public arts. More than half of the subjects liked the mottos on campus. Near 70% of the subjects liked the graffiti wall on campus. Over three-fourths of the subjects enjoyed the arc-shaped waterfall on campus. About half of the subjects enjoyed visiting the art exhibition on campus. 68% of the subjects agreed that campus art would promote teachers and students' culture. Over 75% of the subjects agreed that campus arts was an important design for a school, and more than 60% of the subjects believed that the buildings on campus were a part of arts. The results also showed that female subjects had significantly different perceptions from male ones about art exhibition and buildings on campus. Moreover, the subjects from different programs had significantly different opinions about art exhibition and campus arts. Finally, the researchers drew a conclusion based on the results and provided some teaching and research implications for the future study.

Copyright © 2020, *Hung-Yen Li and Chiung-Li Li*. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Citation: *Hung-Yen Li and Chiung-Li Li*, 2020. "A case study of technical university students' perceptions of campus art in taiwan", *International Journal of Development Research*, 10, (10), 41517-41523.

INTRODUCTION

Research Background and Motivation: Academic credentials have been often grossly overestimated in Taiwan for a long time. Many people only put great emphasis on courses for examinations, like math, science, or English, but ignore the importance of liberal education. Though liberal education is not mainstream education in Taiwan, its power and great influence on a person's characteristics cannot be ignored. Liberal education plays an important part in higher education. In Taiwan, art education is a part of liberal education, including arts, music, architecture, photograph, and so forth. How to promote an understanding of art education in higher education is essential. There is a lot of campus art in school, especially in universities; however, many college students seem to turn a blind eye on campus art. Perhaps most of them are used to having campus art around them but easily ignore it. One of the researchers has taught art in college for over 20 years, and the researchers would like to know whether

technical university students care about campus art in school and their perceptions of campus art in their life.

Research Purpose and Questions

The purpose of the study was to examine technical university students' awareness, opinions, and feelings on campus art. According to the research purpose, there were some research questions as follows.

- (1) What were technical university students' awareness, opinions, and feelings about campus art?
- (2) What was the relationship between technical university students' perceptions of campus art and their backgrounds?
- (3) What were the differences between technical university students' programs and their perceptions of campus art?

Definition

- (1) **Campus art:** In the study, campus art refers to some landmarks and art-like decorations in the university.
- (2) **Public art:** Public art generally refers to any work of art which is designed and sited in a space accessible to the public. In this study, public art refers to some works of art which are related to the university and placed outside the school.

LITERATURE REVIEW

Art Education and Aesthetic Education: Yang (2001) showed that art was regarded as a great way to integrate and cultivate a person's characteristics. In Taiwan, art education is one part of general education in college responding to the needs of live and rich college students' culture (Chen, 2008). Liao (2005) showed that the aim of Grade 1-9 Curriculum in Taiwan was focus on students' integration ability, and to combine social and living resources effectively and connect students' living experience with art education. In other words, in the early stage of general art education, it is more important to immerse students in artistic appreciation than rush their own artistic creation process. Art education should train students to appreciate and pay attention to the world around them. It corresponds with Huang (2012) who believed that art education had to go with the movement of society, and the viewpoint of cultural beauty, new art style and performance need to be paid attention. Yand (2014), Yang (2019), and Liou (2019) showed that art appreciation was an important part of art education; students could learn to appreciate art works or exhibition. In fact, art education is necessary not only for college students but also for elementary and high school students. Through art education, every student becomes an excellent citizen. Some researchers showed that art education could promote students' creativity (Chen, 2005; Liou, 2019; Yang, 2019), thinking ability (Yang, 2018), humanity culture (Huang, 2007), aesthetic ability (Chen, 2005; Liou, 2019; Yang, 2019), and imagination (Liou, 2019; Yang, 2019). That is to say, art education is helpful to enhance mental abilities. Some think art education is similar to aesthetic education, and Shieh (2008) indicated that aesthetic education had to achieve accessibility and modernity, to enable all students acquiring opportunities of aesthetic education that they need in the future. Kindler (2015) thought that the successful future of art education would depend on a careful consideration of how art education was seen from the outside and what needed to shift within the field in order to re-position it in the context of current societal needs and prerogatives. Gu (2018) showed that art education was influenced by visual arts, and visual arts paid attention to learners' active learning and meaningful viewpoints. In other words, art education or aesthetic education should connect with students' living experience and train students to pay attention to the things around them and appreciate the beauty of things. In short, campus art can be a part of art education; campus art gives students quick and easy access and exposure to art education in their daily life. That is to say, art education could be started from art appreciation and provide students with art environment.

Campus Art: Gaines (1991) indicated that the architecture, landscaping and planning of college and university campuses were regarded as an art form and they were a part of campus art. It explores the elements and principles that come together to make a successful campus and the importance of visual environment to the activity that takes place in it. Campus art is

very accessible for students. Chang (1996) showed that the campus museum in college could assist teaching and research, and it could be a critical element to recreate campus culture. Students' or teachers' works of art could be exhibited in campus museums which could provide a place for liberal art education and general education to make students more civilized. In fact, libraries, classroom buildings, administration buildings, student centers, dormitories, and gathering places are all components of campus art. Lee et al. (2017) found that the campus art collection was more attractive to the college students than famous masterpieces because it was more related to the public's lives and experiences. Some researchers indicated that campus art is necessary for a school, and it is beneficial for promoting students' ability to appreciate art (Yang, 2019), and campus art could enhance students' quality of moral and art appreciation (Liou, 2019). That is to say, a campus art museum could be well-integrated into a college or university, and campus art seems to have an invisible, and imperceptible influence on a cultural change in school.

Museum Art: Many schools give their students the quick and easy access to art. Russell and Spencer (2000) showed that at least 700 academic institutions in the United States have an art museum or exhibition gallery, and academic art museums contribute to the formal education of many. Cuno (2004) stated that more and more people attended at American art museums. Therefore, it is worth exploring the experiences within the academic art museum. Liao (2005) indicated that museums let students have an art learning environment and learning materials. When students face authentic art learning settings and atmosphere, they have direct and strong feeling which is different from that in the classroom. Bradley (2009) indicated that campus museums might become privileged places for pedagogical innovation. Glesne (2012) explored how campus art museum was used as a refuge and as a place for social outings; as a venue for campus and community events; and as a place of employment. Glesne stated that professors in the arts and museum studies frequently used the campus museum as a venue for students to practice skills, and some exhibitions were created in conjunction with specific courses. In fact, experiencing a live dance performance, an opera, a play, or a concert is very different from viewing it on a screen and interacting with the original object, and it is a quite unique and unforgettable experience—the magic power of origin. However, most of us knew less about the experiences within academic art museums, and it needs more research about how students, faculty, and the public make use of campus art museums and how the museums enrich personal and academic lives (Glesne, 2012). In other words, campus art museums and campus art exhibitions are easily accessible for students and teachers; however, their invisible power and effect are not paid attention enough and they are worth studying. According to the above, campus art could play an important role in students' school lives; therefore, the researchers would like to know technical college students' opinions and feelings on campus art, and the relationship between their opinions about campus art and their backgrounds.

METHODOLOGY

The study was conducted in two stages during the spring of 2019. In the first stage, a pilot study was conducted to assess the validity and reliability of the survey instrument (Campus Art Questionnaire). The respondents in the pilot study included 103 undergraduate students enrolled at a technical

university in Southern Taiwan. The pilot study was conducted to collect respondents' responses, check data collection results, and test the reliability and validity of the instrument. The reliability analysis to test the consistency of the measuring instrument found that Cronbach's alpha value was .836. According to Hair et al. (2010), the value is significantly above the recommended value of .70 and is considered good. The Campus Art Questionnaire can explain 61.76% of variance, which means the validity of the questionnaire is good as well. In the second stage, the focus of the study was to use Campus Art Questionnaire to examine technical university students' perceptions of campus art.

Subjects: In the study, the subjects were 384 undergraduate students enrolled at a technical university in Southern Taiwan and they finished Campus Art Questionnaire in March, 2019.

Research Instrument

Campus Art Questionnaire: The researchers designed a self-administered structured questionnaire, which consisted of 16 items originally, to gather the subjects' responses about campus art as a pilot study. After the pilot study, the researchers deleted 8 items based on factor analysis. And the finalized questionnaire called Campus Art Questionnaire includes 8 items. A Likert scale of 5=agree strongly, 4=agree, 3=neither agree nor disagree, 2=disagree, and 1=disagree strongly was used to assess the respondents' viewpoints of campus art. The 5-point Likert scale was preferred to reduce Asian respondents' bias (Truong, Yap, & Ineson, 2012).

RESULTS AND DISCUSSION

The 384 subjects took a few minutes to complete the Campus Art Questionnaire (shown as appendix). The data collected from the Campus Art Questionnaire were used for further data analysis.

Descriptive Statistics: Table 1 showed the background of subjects in the study. The characteristics and backgrounds of the subjects were found to be as follows:

- The significant majority of subjects (83%) were female, whereas 17% of the subjects were male.
- The majority of subjects (59%) were from Health& Nursing College, 9% of the subjects from Business& Management College, 31% of the subjects from Human Ecology College.
- Most subjects (84%) reported that they took five-year program, whereas 16% of the subjects four-year program.

Table 1. Demographic Characteristics and Backgrounds of the Subjects (n=384)

Category	n	%
Gender		
Female	320	83.3%
Male	64	16.7%
College		
Health& Nursing	228	59.4%
Business& Management	36	9.4%
Human Ecology	120	31.3%
Program		
Four-year	60	15.6%
Five-year	324	84.4%

According to Table 2, the significant majority of subjects (86%) reported that they enjoyed taking art courses. In other words, art courses were loved by most subjects; perhaps art courses made most students feel more relaxed and comfortable.

Table 2. The Subjects' Attitude toward Art Courses (n=384)

Attitude toward art courses	n	%
Like	330	85.9%
Dislike	54	14.1%

According to Table 3, most of the subjects (68%-76%) agreed or strongly agreed on Items 3, and 4 in the questionnaire; that means most subjects liked the arch-shaped waterfall, and graffiti wall on campus. Various elements in school could be as a part of campus art. Some researchers believed that viewing plants, water, and other natural elements can relieve stress (Adevi&Lieberg, 2012; Adevi&Mårtensson, 2013; Lau et al., 2014; Pasha & Shepley, 2013; Sherman et al., 2005; Ulrich, 1986).

Table 3. The Results of Items in Campus Art Questionnaire (n=384)

Item	D & SD	N	SA & A
1	26.6%	53.4%	20.1%
2	4.2%	43.0%	52.9%
3	2.3%	29.4%	68.2%
4	2.3%	21.4%	76.3%
5	7.8%	48.7%	43.5%
6	1.8%	30.2%	68.0%
7	2.1%	20.6%	77.3%
8	4.2%	32.0%	63.8%

Note: SA-strongly agree, A-agree, N-neutral, D-disagree, SD-strongly disagree

Item 1: I will take pictures or check in with the public art of 'MEIHO.' (Figure 1)

Item 2: I like the wooden signs with mottos on campus. (Figures 2-4)

Item 3: I like the graffiti wall on campus. (Figure 5)

Item 4: I like the arch-shaped waterfall on campus. (Figure 6)

Item 5: I will visit the art exhibition on campus, like block prints, professional achievement exhibition, or photographs. (Figures 7-9)

Item 6: Campus art will promote teachers and students' culture.

Item 7: Campus art is an important design for a school.

Item 8: Buildings on campus are a part of arts.

In a school, various natural elements such as green plants, flowers, and water, can be used to help relieve stress and provide positive influences on human beings. People usually perceive their surroundings by using different senses, like the sense of sight, touch, sound, and smell. Surveys also showed that most university students chose open spaces with natural settings to ameliorate their moods when they were stressed, upset, depressed, angry, or confused (Lau & Yang, 2009). In addition, most of the subjects (68%) agreed or strongly agreed on Item 6. In other words, they thought campus art could promote teachers and students' culture. The result is consistent with Yang (2001) and Chen (2008) who agreed art could cultivate a person's characteristics and rich college students' culture. What's more, most subjects (77%) agreed or strongly agreed on Item 7. That is, they thought campus art was an important design for a school. Generally speaking, campus art represents a symbol or a feature for a school. And many subjects (64%) agreed or strongly agreed on Item 8; they thought buildings on campus were a part of campus art. The buildings on campus often have special or historic meanings for the school, and buildings can be regarded as a part of art. However, 27% of the subjects would not take pictures or check in with the public art of 'MEIHO' (school logo) more than

those who did (20%). Even though a lot of young people are used to taking pictures or checking in at many places, some students are not. Perhaps the subjects thought the public art of the school was not attractive or special enough for them.



Inferential statistics: According to Table 4, there were statistically significant differences between female and male group means as determined by independent t-test in Items 5 and 8 of the Campus Art Questionnaire. That means male subjects ($M = 3.53, SD = 1.13$) significantly liked to visit art exhibition on campus more than female ones ($M = 3.43, SD = .81, t(382) = 14.30, p = .000$). Moreover, male subjects ($M = 3.81, SD = .96$) significantly thought buildings on campus were a part of art more than female ones ($M = 3.76, SD = .79, t(382) = 3.97, p = .047$).

In this study, art exhibitions on campus usually displayed students' art works; perhaps it was easier to satisfy male students' sense of accomplishment. In addition, buildings on campus were usually eye-catching and grand; they would catch males' attraction more easily.

Table 4. Independent t-test between Gender & Campus Art

Item	Gender	Number	M	SD	F
1	male	64	3.203	1.086	3.084
	female	320	3.056	.949	
2	male	64	3.781	.917	.000
	female	320	3.581	.830	
3	male	64	4.000	.817	.725
	female	320	3.894	.839	
4	male	64	4.234	.684	1.110
	female	320	4.025	.841	
5	male	64	3.531	1.126	14.302***
	female	320	3.434	.805	
6	male	64	3.984	.807	.649
	female	320	3.844	.764	
7	male	64	4.109	.819	1.321
	female	320	4.041	.769	
8	male	64	3.813	.957	3.965*
	female	320	3.763	.792	

* $p < .05$, ** $p < .01$, *** $p < .001$
 Item 1: I will take pictures or check in with the public art of 'MEIHO.' (Figure 1)
 Item 2: I like the wooden signs with mottos on campus. (Figures 2-4)
 Item 3: I like the graffiti wall on campus. (Figure 5)
 Item 4: I like the arch-shaped waterfall on campus. (Figure 6)
 Item 5: I will visit the art exhibition on campus, like block prints, professional achievement exhibition, or photographs. (Figures 7-9)
 Item 6: Campus art will promote teachers and students' culture.
 Item 7: Campus art is an important design for a school.
 Item 8: Buildings on campus are a part of arts.

According to Table 5, there were statistically significant differences between four-year program group and five-year program group means as determined by independent t-test in Items 5 and 7 of the Campus Art Questionnaire. That means four-year program subjects ($M = 3.77, SD = 1.00$) significantly liked to visit the art exhibition on campus more than five-year program ones ($M = 3.39, SD = .83, t(382) = 3.92, p = .048$). In this study, four-year program students were older than five-

year program students. Perhaps older students receive more art education than younger students in Taiwanese education system. They have more opportunities to appreciate art exhibitions in school. Yang (2019) and Liou (2019) showed that art appreciation was an important part of art education. Generally speaking, visiting art exhibition on campus can promote students' appreciation of art, and it is an easy and efficient way to make students immerse themselves in art. Moreover, four-year program subjects ($M = 4.12, SD = .88$) significantly thought that campus art was an important design for a school more than five-year program ones ($M = 4.04, SD = .76, t(382) = 4.83, p = .029$). Perhaps older students had more school identity than younger students.

Table 5. Independent t-test between Program & Campus Art

Item	program	number	M	SD	F
1	four-year	60	3.217	1.106	3.648
	five-year	324	3.056	.946	
2	four-year	60	3.817	.930	.014
	five-year	324	3.577	.827	
3	four-year	60	3.983	.854	.445
	five-year	324	3.898	.832	
4	four-year	60	4.100	.817	.464
	five-year	324	4.053	.822	
5	four-year	60	3.767	.998	3.923*
	five-year	324	3.392	.828	
6	four-year	60	4.000	.864	.329
	five-year	324	3.843	.753	
7	four-year	60	4.117	.885	4.833*
	five-year	324	4.040	.756	
8	four-year	60	3.733	.880	1.366
	five-year	324	3.778	.810	

* $p < .05$
 Item 1: I will take pictures or check in with the public art of 'MEIHO.' (Figure 1)
 Item 2: I like the wooden signs with mottos on campus. (Figures 2-4)
 Item 3: I like the graffiti wall on campus. (Figure 5)
 Item 4: I like the arch-shaped waterfall on campus. (Figure 6)
 Item 5: I will visit the art exhibition on campus, like block prints, professional achievement exhibition, or photographs. (Figures 7-9)
 Item 6: Campus art will promote teachers and students' culture.
 Item 7: Campus art is an important design for a school.
 Item 8: Buildings on campus are a part of arts.

Table 6. Independent t-test between Art Course & Campus Art (n=384)

Item	Artcourse	number	M	SD	F
1	like	330	3.109	.992	3.254
	dislike	54	2.907	.830	
2	like	330	3.655	.844	.433
	dislike	54	3.370	.831	
3	like	330	3.994	.8140	.480
	dislike	54	3.407	.790	
4	like	330	4.109	.795	5.950*
	dislike	54	3.759	.910	
5	like	330	3.512	.848	3.551
	dislike	54	3.074	.887	
6	like	330	3.939	.745	2.068
	dislike	54	3.426	.792	
7	like	330	4.127	.753	1.307
	dislike	54	3.593	.765	
8	like	330	3.824	.817	.091
	dislike	54	3.444	.769	

* $p < .05$
 Item 1: I will take pictures or check in with the public art of 'MEIHO.' (Figure 1)
 Item 2: I like the wooden signs with mottos on campus. (Figures 2-4)
 Item 3: I like the graffiti wall on campus. (Figure 5)
 Item 4: I like the arch-shaped waterfall on campus. (Figure 6)
 Item 5: I will visit the art exhibition on campus, like block prints, professional achievement exhibition, or photographs. (Figures 7-9)
 Item 6: Campus art will promote teachers and students' culture.
 Item 7: Campus art is an important design for a school.
 Item 8: Buildings on campus are a part of arts.

According to Table 6, there was a statistically significant difference between those who liked art courses ($M = 4.11, SD = .80$) and those who disliked art courses ($M = 3.76, SD = .91$), $t(382) = 5.950, p = .015$ means as determined by independent t-test in item 4 of the Campus Art Questionnaire. The subjects who liked art courses significantly enjoyed the arch-shaped waterfall on campus more than those who did not. Generally speaking, those who like art courses usually appreciate anything related to art, and the design of arch-shaped waterfall is very unique and picturesque. According to Table 7, a one-way between subjects ANOVA was conducted to compare the effect of campus art on Health & Nursing College, Business & Management College, and Human Ecology College. There was a significant effect of campus art on different colleges at the $p < .05$ level for the three colleges [$F(2, 381) = 3.32, p = .037$]. Post hoc comparisons using the Scheff test indicated that the mean score for Health & Nursing College ($M = 3.85, SD = .77$) was significantly different from Business & Management College ($M = 3.50, SD = .91$). However, Human Ecology College ($M = 3.71, SD = .87$) did not significantly differ from Health & Nursing College and Business & Management College. In other words, the subjects from Health & Nursing College were significantly different from those from Business & Management College in regard to item 8. That is to say, the subjects from Health & Nursing College thought that buildings on campus were a part of arts more than the ones from Business & Management College. Perhaps the university was established about 60 years ago and focused on nursing education at the beginning. Business & Management College and Human Ecology College were established much later than Health & Nursing College.

Table 7. ANOVA between colleges and items in the Campus Art (n=384)

Item		SS	df	F	Scheff
1	Between	1.089	2	.574	
	Within	361.409	381		
	Total	362.497	383		
2	Between	1.114	2	.775	
	Within	273.844	381		
	Total	274.958	383		
3	Between	1.687	2	1.211	
	Within	265.303	381		
	Total	266.990	383		
4	Between	.722	2	.535	
	Within	256.900	381		
	Total	257.622	383		
5	Between	3.573	2	2.401	
	Within	283.486	381		
	Total	287.060	383		
6	Between	.635	2	.532	
	Within	227.591	381		
	Total	228.227	383		
7	Between	1.192	2	.989	
	Within	229.766	381		
	Total	230.958	383		
8	Between	4.414	2	3.318*	1>2
	Within	253.419	381		
	Total	257.833	383		

* $p < .05$; Group1: Health & Nursing College; Group2: Business & Management College; Group3: Human Ecology College

Item 1: I will take pictures or check in with the public art of 'MEIHO.' (Figure 1)

Item 2: I like the wooden signs with mottos on campus. (Figures 2-4)

Item 3: I like the graffiti wall on campus. (Figure 5)

Item 4: I like the arch-shaped waterfall on campus. (Figure 6)

Item 5: I will visit the art exhibition on campus, like block prints, professional achievement exhibition, or photographs. (Figures 7-9)

Item 6: Campus art will promote teachers and students' culture.

Item 7: Campus art is an important design for a school.

Item 8: Buildings on campus are a part of arts.

Therefore, the subjects from Health & Nursing College have more emotional connection with the buildings on campus. According to Table 8, a chi-square test of independence was performed to examine the relation between college and art course. There was a significant relationship between the two variables. Health & Nursing College students enjoyed art courses more than Business & Management College and Human Ecology College students. $\chi^2(2, N = 384) = 6.05, p = .049$. Perhaps, Health & Nursing College is dominant in the school and female students are the majority of Health & Nursing College. Generally speaking, most females love exposure to beautiful things, and they are more willing to cherish opportunities to appreciate paintings, drawings, photos, art works, and architecture during art courses.

Table 8. The Summary of Chi-Square Test between College and Art course

	Value	df	Asymptotic Significance (2-tailed)	Exact Sig. (1-tailed)	Exact Sig. (2-tailed)
Pearson Chi-Square	6.047	2	.049	.054	
Likelihood Ratio	5.583	2	.061	.071	
Fisher's Exact Test				.047	
Linear-by-Linear Association	2.697	1	.101	.107	.061
N. of Valid Cases	384				

According to Table 9, a chi-square test of independence showed that there was no significant association between program and art course, $\chi^2(1, N = 384) = .40, p = .528$. That is to say, students from different programs did not have significant relation to their preference for art courses.

Table 9. The Summary of Chi-Square Test between Program and Art course

	Value	df	Asymptotic Significance (2-tailed)	Exact Sig. (2-tailed)	Exact Sig. (1-tailed)
Pearson Chi-Square	.399	1	.528	.545	.324
Likelihood Ratio	.384	1	.536	.545	.324
Fisher's Exact Test				.545	.324
Linear-by-Linear Association	.398	1	.528	.545	.324
N. of Valid Cases	384				

Conclusion

Based on the results of this study, the researchers drew some conclusions. First, most subjects liked to take art courses, and enjoyed graffiti wall and arch-shaped waterfall on campus. As some researchers stated art education could rich college students' culture (Chen, 2008), promote students' creativity (Chen, 2005; Liou, 2019; Yang, 2019), thinking ability (Yang, 2018), humanity culture (Huang, 2007), aesthetic ability (Chen, 2005; Liou, 2019; Yang, 2019), and imagination (Liou, 2019; Yang, 2019). And Gu (2018) indicated that art education

was influenced by visual arts, and visual arts paid attention to learners' active learning and meaningful viewpoints. In other words, the benefits of art education can be obtained by taking art courses, and appreciating something related to arts (Liou, 2019; Yand, 2014; Yang, 2019). Second, most subjects agreed that campus art could promote teachers and students' culture. The result was consistent with Chen's (2008) and Huang's (2007) studies. Therefore, it is worth paying attention to campus art. Third, most subjects thought campus art was an important design for a school. As some researchers indicated that campus art was more related to the public's lives and experiences (Lee et al., 2017), beneficial for promoting students' ability to appreciate art and necessary for a school (Yang, 2019), and could enhance students' quality of moral and art appreciation (Liou, 2019). In other words, campus art is critical and essential part of a school. Fourth, many subjects thought buildings on campus were a part of campus art. As Gaines (1991) indicated that the architecture, landscaping and planning of college and university campuses were regarded as an art form and they were also a part of campus art. That is to say, many visual elements on campus are closely related to campus art. In sum, most of the subjects seemed to have positive opinions and attitudes toward campus art.

More specifically speaking, male subjects probably liked to visit art exhibition on campus more than female ones, and male subjects seemed to think buildings on campus as a part of arts more than female ones. In addition, four-year program subjects likely enjoyed visiting the art exhibition on campus more than five-year program ones. And four-year program subjects probably thought that campus art was an important design for a school more than five-year program ones. Most of previous studies focused on the functions of campus museums or exhibitions, but few on the relationship between gender or program and art participation or appreciation. As some researchers stated that the campus museum in college could assist teaching and research, and it could be a critical element to recreate campus culture (Chang, 1996), an art museum or exhibition gallery, and academic art museums could contribute to the formal education of many (Russell & Spencer, 2000), campus museum could let students have an art learning environment and learning materials (Liao, 2005). As some researchers' statements, when students face authentic art learning settings and atmosphere, they have more direct and strong feeling which is different from that in the classroom, campus museums might become privileged places for pedagogical innovation (Bradley, 2009). Campus art museum could also be used as a venue for students to practice skills, and as a place for social outings and community events (Glesne, 2012).

However, in this study, students from four-year or five-year program seemed not to have significant relation to their preference for art courses. The result seemed to be consistent with the study of Stern (2011) who found that age had no significant connection with art appreciation or participation. What's more, the subjects who liked art courses seemed to enjoy the arch-shaped waterfall on campus more than those who did not. The arch-shaped waterfall belongs to a part of designed visual art. Art-course lovers probably enjoy art-related designs much more than others. Finally, the subjects from Health & Nursing College thought that buildings on campus were a part of arts more than the ones from Business & Management College. And Health & Nursing College students enjoyed art courses more than Business &

Management College and Human Ecology College students. In previous studies, few focused on the subjects' major. However, in this study, the researchers found health-related majors seemed to enjoy art courses more than other majors.

Implications, Limitations and Recommendations for Future Research

Implications: Based on the conclusion, the researchers provide some implications. First, the gender or major of subjects probably has some relationship with preference for campus art participation or appreciation. What's more, the subjects' programs probably have some effects on their perception of campus art.

Limitations and Recommendations for Future Research: One limitation of the study is generalization. The study used a convenience sampling method by selecting students at a technical university the researchers are teaching, which likely makes generalizing the findings in the study a challenge. To address the limitations of the current study, future research endeavors can recruit and examine more other technical university students in Taiwan. Another limitation of the study comes from the sample size. This study should be repeated in the future with a larger sample size to confirm the relationships between technical university students' opinions and campus art. In the future, the researchers may add some questions in the questionnaire about the subjects' background, like art preference, time of art exposure, subjects' academic performance, and so forth to make future research much further.

REFERENCES

- Adevi, A. A., & Lieberg, M. (2012). Stress rehabilitation through garden therapy: A caregiver perspective on factors considered most essential to the recovery process. *Urban forestry & urban greening, 11*(1), 51-58.
- Adevi, A. A., & Mårtensson, F. (2013). Stress rehabilitation through garden therapy: The garden as a place in the recovery from stress. *Urban forestry & urban greening, 12*(2), 230-237.
- Bradley, L. (2009). caa.reviews. *Curricular Connections: The College/University Art Museum as Site for Teaching and Learning*. Retrieved from <http://www.caareviews.org/reviews/1309>
- Chang, Y. D. (1996). The Mission and Function of University Museum. *Journal of Museum, 10*(3), 17-22.
- Chen, C. H. (2005). Integrating the Features of Visual Art Education with Arts and Humanity Learning. *Curriculum and Instruction, 130*, 111-118.
- Chen, C. Y. (2008). General Education and the Higher Education of Taiwan. *Thought and Words, 46*(2), 1-34.
- Cuno, J. (2004). The object of art museums. *Whose muse, 49-75*.
- Gaines, T. A. (1991). *The Campus as a Work of Art*. Praeger Publishers, One Madison Avenue, New York, NY 10010.
- Glesne, C. (2012). The campus art museum: A qualitative study. *New York, NY: The Samuel H. Kress Foundation*.
- Gu, C. Q. (2018). The Collaboration of Museum and School from the Exhibition Tour of Campus Arts. *Journal of Taiwan Educational Review, 7*(9), 29-36.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Upper Saddle River, NJ: Prentice Hall.

Huang, C. C. (2007). On the Interaction and Fusion of Specialized and General Education in the Twenty-first Century. *Journal of General Education*, 1(2), 1-28.

Huang, C. Y. (2012). The Influence of Art Education on Character. *Journal of Applied Ethics Instruction and Research*, 7(1), 103-113.

Kindler, A. M. (2015). From Within and from the Outside: Exploring the Possibility of a Sustainable Future for Art Education. *Art Education Research*, 30, 1-19.

Lau, S. S. Y., Gou, Z., & Liu, Y. (2014). Healthy campus by open space design: Approaches and guidelines. *Frontiers of Architectural Research*, 3(4), 452-467.

Lau, S. S., & Yang, F. (2009). Introducing healing gardens into a compact university campus: design natural space to create healthy and sustainable campuses. *Landscape Research*, 34(1), 55-81.

Lee, C.Y., Chien C. F., Walters, B. G., Liao, C.J., & Chen, L.Y. (2017). College Students' Learning Outcomes in an E-Art Education. *Taiwan Journal of General Education*, 20, 61-97.

Liao, D. R. (2005). *Action Research about "School-Leading" Model of Museum-School Collaboration*. Doctoral Dissertation, National Taiwan Normal University.

Liou, Y. M. (2019). A Study of the Strategies to Promote Students' Art Competency. *SHEN ZHOU*, 21, 126.

Pasha, S., & Shepley, M. M. (2013). Research note: Physical activity in pediatric healing gardens. *Landscape and urban planning*, 118, 53-58.

Russell, J. J., & Spencer, T. S. (Eds.). (2000). *Art on Campus: The College Art Association's Official Guide to American College and University Art Museums and Exhibition Galleries*. Friar's Lantern Incorporated.

Sherman, S. A., Varni, J. W., Ulrich, R. S., & Malcarne, V. L. (2005). Post-occupancy evaluation of healing gardens in a pediatric cancer center. *Landscape and Urban Planning*, 73(2-3), 167-183.

Shieh, P. (2008). The New Perception: Hypermediating Interdisciplinary Cultures through Aesthetic Education. *Journal of DaYen General Education*, 2, 145-156. <http://www.visual-arts-cork.com/public-art.htm#definition>

Stern, M. J. (2011). *Age and arts participation: A case against demographic destiny*. National Endowment for the Arts, Washington, DC.

Truong, T. T., Yap, M. H., & Ineson, E. M. (2012). Potential Vietnamese consumers' perceptions of organic foods. *British Food Journal*, 114(4), 529-543.

Ulrich, R. S. (1986). Human responses to vegetation and landscapes. *Landscape and urban planning*, 13, 29-44.

Yang, W.J. (2018). The Principle of Integrating Life Education and Art Education. *Journal of Taiwan Educational Review*, 7(6), 102-105.

Yang, C.H. (2014). A Brief Discussion on the Effect of "Aesthetics" in Higher Vocational Education. *The Science Education Article Collects*, 281, 128-129.

Yang, D. (2019). A Study of Promoting College Students' Art Appreciation. *New West*, 3, 156-165.

Yang, S.K. (2001). *The Study of Critical Aesthetics and its Implication for Aesthetic Education*. Report of NSC 89-2413-H-003-075.

Appendix

- I. What's your gender? male female
- II. Which college do you study? Health and Nursing college Business and Management college Human Ecology college
- III. Which program do you study? four-year program five-year program
- IV. Do you like art course? Yes No

Campus Art Questionnaire	S	A	N	D	SD
	5	4	3	2	1
1. I will take pictures or check in with the public art of 'MEIHO.' (Figure 1)	5	4	3	2	1
2. I like the wooden signs with mottos on campus. (Figures 2-4)	5	4	3	2	1
3. I like the graffiti wall on campus. (Figure 5)	5	4	3	2	1
4. I like the arch-shaped waterfall on campus. (Figure 6)	5	4	3	2	1
5. I will visit the art exhibition on campus, like block prints, professional achievement exhibition, or photographs. (Figures 7-9)	5	4	3	2	1
6. Campus art will promote teachers and students' culture.	5	4	3	2	1
7. Campus art is an important design for a school.	5	4	3	2	1
8. Buildings on campus are a part of arts.	5	4	3	2	1

Note: SA-strongly agree, A-agree, N-neutral, D-disagree, SD-strongly disagree.

