Total Self-concept, Academic Self-concept and Artistic Self-concept of Malaysian Art School Students and Their Associations with Art Achievements

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Abstract

In this study, we investigated the profile of self-concept of artistically and musically talented students, urged by the fact that gifted students in general were reported to have low self-concept and suffered from societal-behavioural problems. The study also determined the associations of self-concepts and their achievements in art subjects. A total of 232 samples were taken from the Malaysian Art School. Data were collected using Self Description Questionnaire-II (SDQ II), Arts Self Perception Inventory (ASPI) and the results of the students' Form Three Evaluation (PT3). Artistically talented students were found to have a moderately high level of self-concept, and their self-concept was significantly different between genders and the specific artistic domain they major in. There was also a positive association between total self-concept and academic self-concept with the artistic achievement of the art school students.

Keywords: Art, academic achievement, transfer effect, self-concept, gender, artistic domain

Introduction

Background

Art schools, a public school model in nurturing artists within the modern secondary school system, began to receive attention as legitimate educational institution in the 1980s (de Araújo, 2018). It provided pre-professional training focusing on artistic domains for students who were talented in the arts (Cornwell & Rushton, 2012). In Malaysia, a specialised secondary school programme for the arts is conducted under the Ministry of Education. Organised in a centralised manner, the Malaysian Art School, or Sekolah Seni Malaysia (SSeM), has campuses built in Johor, Sarawak, Perak, Sabah, and the Federal Territory of Kuala Lumpur.

The SSeM offered four art streams, namely music, dance, theatre and visual arts, embedded in and taught concurrently with the general secondary curriculum. The four main streams of art program were compulsory for all lower form students. After Pentaksiran Tingkatan Tiga or Form 3 Assessment (PT3), upper form students would choose an artistic subject of their choice. PT3 was a Form Three summative assessment to assess students' academic achievement at the lower secondary level. The assessment included the syllabus's scope from Form one to Form three based on the goals, objectives and content of the subject.

SSeM students undergo an extensive screening process and were identified as artistically talented. Art school application was done online. Students who have applied online and could fullfil the requirements will be called to attend an audition session to assess students' talent. The current educational disruption due to the pandemic is a threat to human resources development in the arts and creative industry. Students of SSeM need close supervisions to navigate the disruptions. Their profiles as artistically talented students need first to be understood before any informed plan and measures for student support could be developed.

Problem Statement

The question of the association between academic self-concept and academic achievement was genuinely a vital research question that has been discussed. Research focusing on academic self-concept and academic achievement were conducted on mainly public high school students (Affum-osei, Adom, Barnie & Forkuoh, 2014; Niepel, Brunner & Preckel, 2014; Seaton, Parker, Marsh, Craven & Yeung, 2014) and some on students with learning disabilities (Möller, Streblow & Pohlmann, 2009; Zheng, Gaumer Erickson, Kingston & Noonan, 2014). Research on the self-concept of a particular group of students, art school students, for example, is limited.

Meanwhile, the reports of suffering from significant problems including behaviour problems, social problems, low academic achievement, the problems of planning for the future, on lack of vision for the future, suffering from chronic diseases and the problem of school drop-out observed among the gifted students (Alqadhi & Buhijji, 2017), and that gifted students had a low self-concept (Preckel, Götz & Frenzel, 2010) implies that artistically talented students may also be of the risk of suffering from similar problems and issues. Preckel, Götz and Frenzel (2010) further mentioned that students in gifted classes reported decreased self-concept. As a predictor for these prob-

lems (Hosova & Duchovicova, 2019a; Sander & Scherer, 2014), self-concept is the crucial information needed in understanding the situations of artistically talented students.

This study intends to investigate and provide a self-concept profile of such artistically talented students who are now learning in SSeMs and its associations with their art achievements. Thus, the study helps to close the gap of domain-specific information within the knowledge of self-concept and understand better the situation of artistically talented students.

What are the characteristics of the self-concept of art school students? Do they differ according to gender and artistic domains? To what extent do self-concept affect art achievement among art school students? Operationalised research questions are as below:

1. Was there a difference in the total self-concept among different gender of art school students?

2. Was there a difference in the academic self-concept among different gender of art school students?

3. Was there a difference in the artistic self-concept among different gender of art school students?

4. Was there a difference in the total self-concept levels of students in different artistic domains?

5. Was there a difference in the academic self-concept levels of students in different artistic domains?

6. Was there a difference in the artistic self-concept levels of students in different artistic domains?

7. To what extent did the total self-concept affect art achievement among art school students?

8. To what extent did the academic self-concept affect art achievement among art school students?

9. To what extent did the artistic self-concept affect art achievement among art school students?

Definitions

Art school students

Art school students comprised of students who study in art schools in Malaysia and has potential in arts. They were interviewed before their school enrolment and studied the same subjects as in other government secondary schools but focus on art subjects.

Self-concept

Self-concept was measured by Self-Description Questionnaire II (SDQII) and Arts Self-Perception Inventory (ASPI). Self-concept in this study included total self-concept, academic self-concept and artistic self-concept.

Domains of self-concept

In this study, the domain of self-concepts refers to the breakdown of artistic self-concept. The domain of artistic self-concept included music, visual art, dance and theatre, was evaluated by ASPI.

Art Achievement

In this study, art achievement refers to academic achievement in art subjects. Art achievement of art school students was obtained from the results of PT3. The art achievement included the results of music, dance, theatre and visual art.

Literature review

Self-concept

Self-concept refers to a person's self-perception formed through the environment one is placed in and interact with; and is closely related to personal achievements and life experience (Kerr, 2009). Self-concept was identified as a multidimensional construct that consisted of various domains that reflected how one could play multiple roles in life (Marsh & O'Mara, 2008). The hierarchical model of self-concept posited that general self-concept was divided into academic and non-academic self-concept. Academic self-concept refers to one's view of his/her academic abilities (Kerr, 2009). In school, students learned different subjects, of which the learning outcomes are evaluated by tests and examination. Therefore, they viewed and developed an image of themselves through their academic achievement and formed a general judgment. Non-academic self-concept is further comprised of three aspects, namely social, emotional and physical. It further included a vast array of variants such as honesty self-concept, physical appearance self-concept, parent relationship self-concept, among others (Marsh & O'Mara, 2008).

Self-concept had been proven to affect students' learning experience, academic behaviour, and academic achievement. Thus, one way of providing evidence of the importance of certain learning subjects, art subjects included, is by measuring the learner's self-concept and its correlations. Recent research showed that self-concept and cognitive ability positively correlate with direct and indirect effects (Chen, Hwang, Yeh & Lin, 2012). Academic self-concept facilitates students' emotional, social, mental and physical development and is regarded as one of the strongest motivating forces in predicting desirable behaviour and learning outcomes (Marsh, 2014). Therefore, maximising students' academic self-concept could boost students' academic performance. At the same time, students would presume themselves of having high cognitive abilities and feel confident if their academic achievements, says in mathematics or language, were satisfying.

As self-concept affects students' perceptions and learning behaviours, it has also been frequently used to predict student's achievement and examine students' profile. The

relationship between academic self-concept and academic achievement was evident in establishing the reciprocal effects model and many other research findings that outlined the strong relationship between the two variables (Dulay, 2017). Furthermore, studies indicated that self-concept could be associated with better educational attainments five or 10 years after graduation from high school, hence the lasting effects of self-concept (Liem, Marsh, Martin, Mclnerney & Yeung, 2013).

Self-concept and Academic Achievement

Studies in self-concept had focused on the casual ordering of academic self-concept and academic achievement. Green, Nelson, Martin and Marsh (2006) put forth the Reciprocal Effects Model (REM) to postulate a positive mutual relation between the two, where academic self-concept was both cause and effect of academic achievement. Students' prior academic achievement would contribute to the formation of self-concepts, while the self-concepts students hold on to present would influence school assessment. The correlation between academic self-concept and academic achievement was also proven in research by Wouters, Colpin, Germeijs & Verschueren (2015), Marsh et al. (2008) and others.

Self-concept and Art

Research suggested that participation in art programs helps to improve children's self-concept (Kaufman et al., 2014). One of the example was dance activity. The effect of dance on improving self-concept has long been established (Carter, 2004; Lee, 2007; McInman & Berger, 1993; Riggs, 1997). A systematic review done in 2012 further confirmed that recreational dance activity had contributed to significant improvements in self-concept among children (Burkhardt & Brennan, 2012). However, recent research on the effect of dance on improving self-concept has been scarce.

As for the effect of drama activities on self-concept, research that looks into this topic is rare. Existing reports on drama and self-concept are far from being conclusive. At the same time, Fleming, Merrell and Tymms (2004) found that such activities have enhanced children's positive self-concept and self-esteem. Freeman, Sullivan and Fulton (2003) found no significant effects on self-concept after creative drama activities. Similarly, few studies were done to investigate the effects of music on self-concept. Recent research reported that a higher number of music lessons participated in led to a more positive academic self-concept of children (Degé & Schwarzer, 2017). Shin's (2011) study also revealed significant differences in students' general school self-concept and math self-concept after participating in weekly music workshops. Research into particular art activity aside, it is yet uncertain that art activities, in general, will affect the level of self-concept of young learners and teenagers.

Self-concept and Talented Students

Art school students, such as those in the SSeM, are category "artistically- talented". Students passed the official selection process to enter the specialised programme. Artistically talented students may have areas of concerns in their study that are different from mainstream students. Zimmerman & Reis (2004), in their book describing the characteristics of artistically and musically talented students, had made a case for a unique profile for these students. For example, they mentioned that students who were

talented in dance and music were less successful in some academic subjects, except for the visual arts majors.

Besides, the reports of high rates of social and emotional problems suffered by talented students (Alqadhi & Buhijji, 2017), in general, might imply that artistically talented students could potentially be having the same risk. Other than academic failure, talented students also faced mental, emotional and behavioural problems. Compared to students from the general curriculum, talented students had mental issues such as stress, depression, anxiety, perfectionism, career indecision and even suicidal ideas (Eren, Çete, Avcil & Baykara, 2018). Gifted students were reported in recent research to have low skills in problem-solving (F. Uçar, M. Uçar & Çalişkan, 2017). They described themselves as inattentive to the social surroundings, having low levels of self-concept in their social functioning and low physical health status (Eren et al., 2018; Preckel, Götz & Frenzel, 2010). Self-concept, as a predictor for both academic achievements and behavioural problems (Hosova & Duchovicova, 2019a), is the key information needed in understanding the situations of artistically talented students.

Given the particularities of artistically talented students, study to unveil this group of students' social and emotional problems is necessary. One predictor for the potential suffering of social and emotional problems of students is the level of self-concept. Studies indicated that students who were involved in problems such as disruptive classroom behaviour (Bidell & Deacon, 2010), depression (Au, Lau & Lee, 2009; Turner, Finkelhor & Ormrod, 2010) and suicide ideation (Au et al., 2009) had lower self-concept compared to others. Furthermore, declines in self-concept also reportedly led to becoming the victims of sexual and bully cases (Turner et al., 2010). Therefore, information on the self-concept of students of art schools, as intended in this study, could help clarify if artistically talented students suffer from social misbehaviours and emotional trauma as with the psychologically defined gifted students.

Previous Studies on Self-concept

Research on self-concept was well established since the development of the Marsh/Shavelson model and the instrument known as SDQ (Marsh 1990). Typical educational research in the self-concept pairs up self-concept with other variables. As mentioned in previous sections, most of the research on self-concept was designed as correlational studies to investigate the association between self-concept and achievement. Other than correlational designs, some qualitative studies review the theory and measurements (Marsh, 2014; Rosenberg, 2017), as well as longitudinal studies that investigate the long term effects of self-concept on achievement (Arens et al., 2016; Lee & Kung, 2018; Sewasew & Schroeders, 2019). Recent research that focuses on profiling self-concept alone is rare; one of such studies is by Ishak, Jamaluddin & Chew (2010). Information on the self-concept of artistically or musically talented students is extremely rare. To date, only Cukierkorn (2007) 's's study is traceable by the researcher.

Self-concept had a multifaceted feature. The problem with profiling self-concepts for artistically talented students lies in the availability of multiple types of self-concept along the spectrum of generic-specificity. The selection of the instrument of measure could render an incomplete picture of the profile created. Previous research studies on art and music students were far from being comprehensive. They focused on general

self-concept and musical self-concept (Petersen & Camp, 2016) but ignored other types such as artistic self-concept and academic self-concept. Clear and comprehensive profiles of self-concepts of artistically talented students are crucial for recognising who these students are.

Previous research indicated that most studies on self-concept and achievement-focused on academic self-concept (Dicke et al., 2018; Jaiswal & Choudhuri, 2017; Sewasew & Schroeders, 2019), especially math self-concept (Arens et al., 2016; Lee & Kung, 2018). In addition, most of the studies evaluated math achievement (Arens et al., 2016; Han, 2019; Lee & Kung, 2018) and language achievements such as English (Kirmizi, 2015) and Malay (Nurulhuda Baharudin, 2010). Some studies evaluated the school-average achievement of students (Dicke et al., 2018). Although most of the studies indicated a positive association between self-concept and academic achievement, some research showed no significant relationship (Tang, 2011; Yengimolki, Kalantarkousheh & Malekitabar, 2015). More research is needed to make the association between self-concept and academic achievement more conclusive.

From the view of self-concept, the body of knowledge on self-concept and its correlations centres around intellectual abilities. Few have investigated non-academic self-concept, and information related to the artistic domain is scarce. For non-academic self-concept, Low and Zahari Ishak (2014) and Ogle, Frazier, Nichols-Lopez and Cappella (2016) showed that non-academic self-concept could improve academic outcomes. The former, conducted in Malaysia, explained that non-academic self-concept could indirectly affect academic achievement through academic self-concept, which acted as a mediator.

Gender was one frequently investigated variable in self-concept research, and the results had yet to agree on any consistent trait. Some studies concluded no gender difference (Han, 2019; Yengimolki et al., 2015), while some showed the other way. For example, Lee and Kung (2018) stated that males had higher math self-concept while other studies proved that females had higher academic self-concept than males (Jaiswal & Choudhuri, 2017; Nurulhuda Baharudin, 2010). Other variables tested in previous research include motivation (Khalaila, 2015), social adjustment (Yengimolki et al., 2015), self-efficacy (Kirmizi, 2015) and self-regulation (Kirmizi, 2015). Due to the need for more information on gender and self-concept and their impact in practice in a specific domain such as the arts, the present study included gender as a variable in its research design.

From the aspect of respondents, self-concept research mainly consisted of students in public education and some students with learning disabilities (Zheng et al., 2014). It included preschool students (Arens et al., 2016), primary students (Sewasew & Schroeders, 2019), high school or secondary school students (Jaiswal & Choudhuri, 2017; Lee & Kung, 2018; Niepel, Brunner & Preckel, 2014; Yengimolki et al., 2015) and also higher education students (Kirmizi, 2015; Tang, 2011). Most of the research done in Malaysia had secondary students as respondents (Ishak et al., 2010; Low & Zahari Ishak, 2014; Nurulhuda Baharudin, 2010). Research on the self-concept of a particular group of students, art school students, for example, is minimal. As already mentioned, having students of specialised programmes as respondents for self-concept research was unprecedented.

The Current Study

Given the gap of domain-specific information within the body of knowledge of learners' self-concept, and the practical need to understand better the situations of artistically talented students, this study intended to provide profiles of self-concepts of students in the SSeM and their correlation with their academic achievement in art subjects. The self-concepts developed a covered total and domain-specific categories and looked into comparing the differences by 1) gender and 2) the four artistic domains. It also included 3) the correlations of self-concepts and academic achievements.

Methodology

This is a correlational study determining the self-concepts of artistically talented students and their associations with gender, artistic domain and academic achievement. Total self-concept, non-academic and academic included, were measured through the Self Description Questionnaire-II (SDQII), while artistic self-concept was measured using the Arts Self Perception Inventory (ASPI). The SDQ II was designed by Marsh (1990) based on Shavelson's hierarchical model of self-esteem and general self-concept derived from Rosenberg (1965) self-esteem scale to measure adolescent self-concept. The questionnaire consisted of 102 items. Meanwhile, ASPI was designed to parallel with SDQ II. The 40-item ASPI (Vispoel, 1993) was the only domain-specific measure to assess self-perception in dance, theatre, visual art and music. It consisted of four self-concept scales which included dance, theatre, visual art and music.

Academic achievement was obtained through the results of the four art subjects in the Malaysian Form Three Assessment (PT3) on art subjects. The academic achievements in this study are limited to the art subjects, as the respondents are art school students. The main variable for this study was self-concept, including total self-concept, academic self-concept, and domain-specific self-concept (artistic self-concept). The dependent variables were academic achievements. In this study, we looked into significant differences of self-concept according to gender and artistic domains and, later, the correlations between self-concepts and achievements.

Sampling

A sampling size of 225, based on the Raosoft calculation, was necessary to represent the total population of the SSeM for the year 2019, which was 1327 students. The 232 samples were successfully collected through random sampling. Respondents were Form Three students studying in the SSeM campus in Perak, Johor, Sarawak and Sabah and the Federal Territory of Kuala Lumpur. Form Three students were selected based on the availability of standardised academic outcome. They were suitable as they have continued their study in the art schools for three years to rule out the unstable challenges in beginning school. They also had a good understanding of the art subjects and gave their self-concepts more stably. A consent form for students was given to the student who was interested in participating in a study. The students could only be involved in the research after gaining consent from their parents.

Conceptual Framework

The main variable for this study was self-concept that includes total self-concept, academic self-concept and domain-specific self-concept. Academic self-concept is part of the total self-concept in the SDQ II that include both academic and non-academic components but was analysed separately as one variable for clarity. Domain-specific self-concept in this research refers to artistic self-concept. At the same time, the dependent variables were academic achievement. Therefore, the study first looks into the significant differences of self-concept according to gender and artistic domains and the correlations between self-concepts and achievements.

Instrument of Study

The Self Description Questionnaire-II (SDQ II) and the Arts Self Perception Inventory (ASPI) were employed for data collection, complemented by sociodemographic questions. The SDQ II included three areas of academic self-concept, seven areas of non-academic self-concept and general self-concept. These 11 scales summed up to yield a Total Self-concept score. SDQ II had been widely used all around the world, and its construct validity had been well established (Abu-Hilal, Al-Maamari & Al-Sulaimani, 2019; SDQ II 1990). Moreover, research studies in Malaysia using SDQ are prevalent (Adlan Mohamed Yusof, 2016; Nurulhuda Baharudin, 2010; Tang, 2011). Therefore, the questionnaire was examined for its relevance to the local context and was translated into Bahasa Malaysia by referring to other local research like Nurulhuda Baharudin (2010). The localised and translated SDQ has 112 items, including 10 additional items to evaluate the self-concept of the command of Bahasa Malaysia.

The 40-item Arts Self Perception Inventory ASPI (Vispoel, 1993) is the only available domain-specific measure to assess self-perception in dance, theatre, visual arts and music. Although the high school version of the ASPI, in particular, had not been widely used, 'Vispoel's (1993) results suggested good psychometric properties. The reliability of the research instrument is further confirmed by researchers' reliability tests conducted in the pilot test presented in the following section.

Data Collection

Prior consents of the students' parents were obtained before data collection. Data were collected at the art schools in an appropriate classroom over one week, with the students completing all three instruments as groups. It took approximately 30 minutes for

the administration of the study. Achievement in art subjects in the year 2019 was obtained from the Pentaksiran Tingkatan Tiga (Form Three Assessment) or PT3, a nationwide standardised summative assessment to assess 'students' academic achievements at the lower secondary level. Art subjects in PT3 are evaluated in four levels: band 1 (the lowest band) and band 4 (the highest band).

Data Analysis

The modified SDQ II yielded 12 sub-scores comprised of academic self-concept, non-academic self-concept, and general self-concept. The ASPI yielded four self-concept scores based on four different artistic domains. Both the SDQ II and ASPI scores are expressed as a range from 1 to 6, with an interpretation of 1.00-1.99 as low, 2.00-2.99 as slightly low, 3.00-3.99 for moderate, 4.00-4.99 for slightly-high, and 5.00-6.00, high. As with the achievement in the art subjects, the art results of PT3 are officially measured by four band levels with band four as the highest band, with the mean of 1.00-1.99 regarded as low, 2.00-2.99 as moderate, and 3.00-4.00 as high. The hypotheses and the relevant statically analysis are presented in Table 1.

Table 1. *Inference technique according to the hypotheses*

Hypotheses	Inference Techniques
$H_0$1 There was no statistically significant difference in total self-concept among different genders of art school students.	Independent Sample T-test
$H_0$2 There was no statistically significant difference in academic self-concept among different genders of art school students.	Independent Sample T-test
$H_0$3 There was no statistically significant difference in artistic self-concept among different genders of art school students.	Independent Sample T-test
$H_0$4 There was no statistically significant difference in the total self-concept levels of art school students in different artistic domains.	One-Way ANOVA with Post Hoc Test
$H_0$5 There was no statistically significant difference in the academic self-concept levels of art school students in different artistic domains.	One-Way ANOVA with Post Hoc Test
$H_0$6 There was no statistically significant difference in the artistic self-concept levels of art school students in different artistic domains.	One-Way MANOVA with Post Hoc Test
$H_0$7 There was no statistically significant association between total self-concept and academic achievement among art school students.	Pearson Correlation
$H_0$8 There was no statistically significant association between academic self-concept and academic achievement among art school students.	Pearson Correlation

$H_0$9 There was no statistically significant association between artistic self-concept and academic achievement among art school students.	Pearson Correlation

Pilot Study and Reliability of Instrument

A pilot study was conducted on 30 students from the SSeM in Kuala Lumpur. Questionnaires such as demographic questionnaire, SDQ II and ASPI were given to the students. Reliability test SDQ II and ASPI were computed using Cronbach's coefficient alpha. The reliability index obtained from this pilot study for SDQ II was .94 and for ASPI was .92. The Cronbach Alpha coefficients of SDQ II ranged from 0.68 to 0.93. Meanwhile, the Cronbach Alpha coefficients of ASPI ranged from 0.77 to 0.94. This indicates that both SDQ II and ASPI have high reliability, consistent with the reports in the literature (SDQ II 1990; Vispoel 1993).

Results

From the five branches of SSeM, 232 students completed all of the protocols. Respondents of the study consisted of 79 males and 153 females; 65 majored in music, 62 in visual arts, 54 in theatre, and 51 in dance. The results of the different types of self-concepts, as shown in Figure 1, centred within the range of "slightly high" (4.00-4.99) except for the domain-specific self-concept of the music students that recorded a borderline confidence level of high (5.0723). The more generic types, which were total self-concept, academic self-concept and artistic self-concept, were lower than the domain-specific self-concepts. However, art school students had higher levels of self-concept about their specialised ability compared to the more generic types of self-concepts. Music students, for example, had a high view on their musical ability (5.0723) but maintained a borderline level of slightly high on their overall ability in the arts (Artistic SC 4.0060).

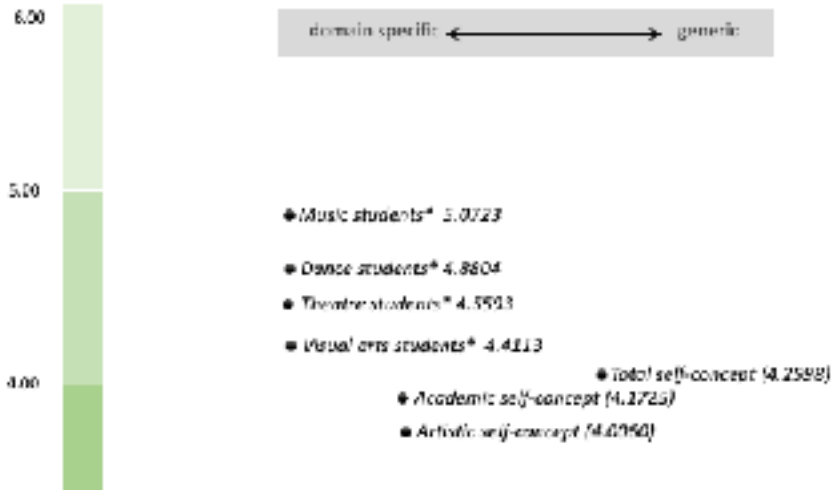

Figure 1. Domain-based profile of self-concepts of SSeM Students (N=232). * The self-concept on a specific domain by the students majoring in the same domain only. These were measured by extracting the data by a particular major on the same skill sets

in ASPI scores. For example, the mean score for ASPI music skills by music students only (5.0723), etc.

An itemised profile (Figure 2) of the self-concept of the art school students revealed that all the sub-categories scored within the range of "slightly-high" (4.00-5.99) with some minor exceptions. Students' social self-concepts were notably on the high side: parent relationships ranked top as the single "high "item, and relationships with the same-sex and the opposite-sex were good. The art school students saw themselves as effective, capable and contented with the way they were (General Self, 4.50); and were satisfied with their physical appearances (4.12). SSeM students were confident with their language skills, especially with Malay (4.94). However, they seemed less confident in studying school subjects in general (General School, 3.96) and the issue of honesty (3.98). Educators may benefit from acknowledging that mathematics and emotional stability are the two most challenging items for the artistically-talented students.

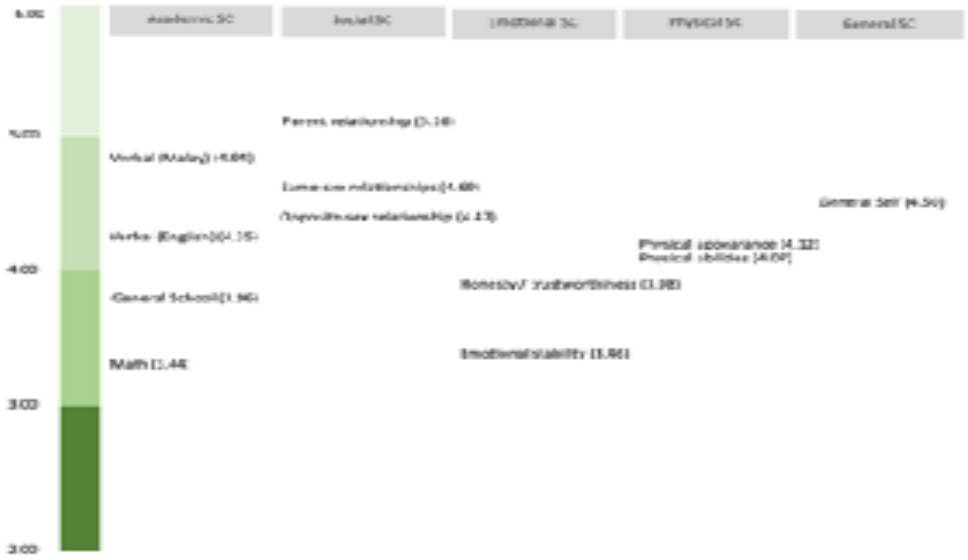

Figure 2. Itemised profile of self-concepts of SSeM Students (N=232)

Gender differences and artistic domains did not determine the academic self-concepts of the SSeM students but, interestingly, could indicate the overall achievements in the art subjects. In other words, academic confidence was influential in determining all-rounded achievements in the arts. The general self-concepts of the artistically talented students were dependent on gender differences and artistic domains. For example, an art student's level of satisfaction about himself/herself would depend on if one was male or female and the specific art area one majored in. The general self-concept was also a predictor for overall artistic achievement. The artistic self-concepts of the students were affected by gender differences and artistic domains. However, these might not be useful indicators compared to the academic and general self-concepts as they did not predict achievements. The predictors for music achievement and dance achie-

vement presented in Figure 3 were unessential because the data of achievements were obtained from students of all majors.

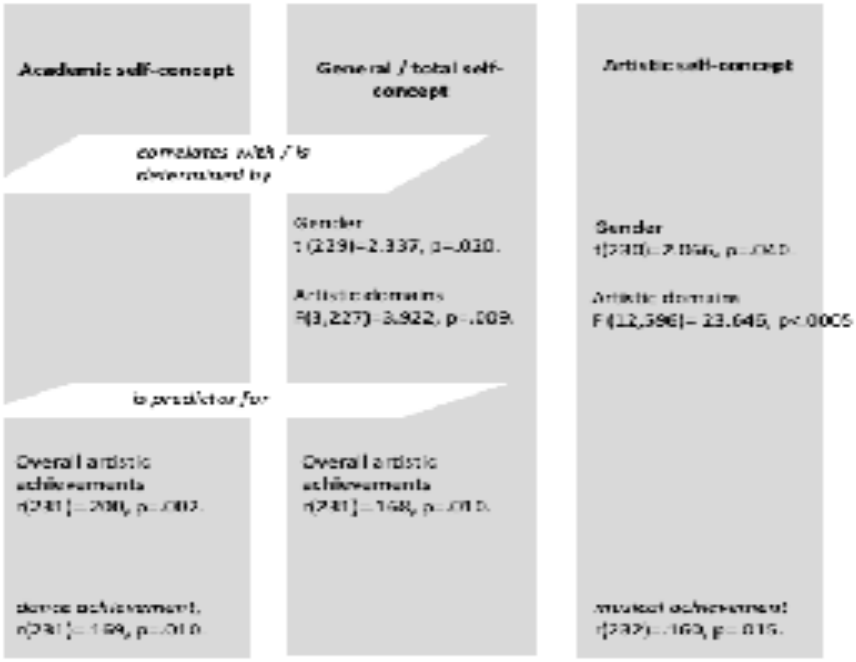

Figure 3. Correlations of self-concepts of SSeM students (N=232)

Testing of Hypotheses

Self-Concept of Art School Students According to Gender ($H1_0$-$H3_0$). Using t-test, hypothesis H01 was rejected. There were significant differences in total self-concepts among art school students according to gender. Male students had a higher total self-concept than female students, t (229)=2.337, p=.020. This indicated that male students had higher self-perception compared to female students. They had better self-image on different aspects such as social, physical, academic, emotion and so on. Table 2 shows the result of independent sample t-test for total self-concept. The result concurs with previous studies by Ertl, Luttenberger and Paechter (2017), Muthuri and Arasa (2017) and Kerr (2009). Kerr (2009) further explained that gifted male generally reported higher total self-concept score than female. The result showed a contrast with the study carried out without specifying a particular domain of students. Zeigler-Hill & Myers' (2012) concluded that males and females were roughly equivalent to self-esteem levels. Han's (2019) study stated that gender stereotype did not affect the self-concept of students. This strongly suggests that gender differences in the self-concept are prevalent to students of a particular domain or background. Ertl et al. (2017) was a study of unrepresented female students in science and technology program.

Table 2.
*Result of independent sample t-test for total self-concept. *The mean difference is significant at the 0.05 level.*

Variances	t	df	Sig. (2-tailed)
Equal variances assumed	2.337	229	.020
Equal variances not assumed	2.251	142.771	.026

H02 was not rejected, with an SDQ II score as t(229)=1.569, p=.118., meaning the academic self-concept of art school students did not yield significant differences based on gender. Although there was no significant difference shown, male students ($\bar{x}$=4.2557) had a slightly higher academic self-concept than female students ($\bar{x}$=4.1293). This indicated that male students had more confidence in their ability in school. This trend is not consistent in the research literature. Some researches reported a higher academic self-concept with the male over female students (Lee and Kung, 2018; Sullivan, 2009), while some had reported female students with higher academic self-concept (Hosova & Duchovicova, 2019b; Jaiswal & Choudhuri, 2017; Nurltlhuda Baharudin, 2010). Table 3 shows the result of independent sample t-test for academic self-concept.

Table 3.
*Result of independent sample t-test for academic self-concept. *The mean difference is significant at the 0.05 level.*

Variances	t	df	Sig. (2-tailed)
Equal variances assumed	1.569	229	.118
Equal variances not assumed	1.514	143.248	.132

Meanwhile, artistic self-concept was found to correlate with gender. Male students had a higher artistic self-concept than female students, with t(230)=2.066, p=.040., hence H03 was rejected. The artistic self-concept of male art school students was significantly higher than the of females. Past research suggests that the differences are tied to students' type of arts, though more findings are awaiting to be conclusive. Wehr-Flowers (2006) has reported a male's higher confidence level in jazz performance study, while Lovatt (2011) reported that females had shown a higher level of confidence than male in dance. As for this study, since the curriculum of SSeM is comprehensive in that each student are to learn across several fields of arts, the gender differences imply a different level of confidence in creative-performative work in general. Thus, male students had higher self-perception on their artistic ability. They viewed themselves as good in the art such as visual art, music, dance and theatre. Table 4 showed the result of independent sample t-test for artistic self-concept.

Table 4.
*Result of independent sample t-test for artistic self-concept. * The mean difference is significant at the 0.05 level.*

Variances	t	df	Sig. (2-tailed)
Equal variances assumed	2.066	230	.040
Equal variances not assumed	2.059	156.239	.041

Self-Concept of Art School Students According to Artistic Domain ($H4_0$-$H6_0$). H04 has rejected: the independent variable of artistic domains made a significant difference in total self-concept as measured by scores on SDQ II, F(3,227)=3.922, p=.009. Overall, the students' total self-concept was considered slightly high ($\bar{x}$=4.2598). It was true that art including theatre (Kokx, 2017; Tsiaras, 2016; Vitharana, 2017), dance (Burkhardt & Brennan, 2012; Eusanio, Thomson & Jaque, 2014), music (Deniz, 2010; Kokx, 2017) and visual art (Kaufman et al., 2014; Slayton, D'Archer & Kaplan, 2010) could improve students' total self-concept. For total self-concept, theatre students had the highest total self-concept ($\bar{x}$=4.4301), followed by dance ($\bar{x}$=4.2678) and music students ($\bar{x}$=4.2471). Visual art students had the lowest total self-concept ($\bar{x}$=4.1184). The ANOVA Tukey's post hoc test revealed that the exact pair of domains that yielded significant difference was Visual art and theatre, with a mean difference of -.31175, sig.=.004. There was no other combination of domains that yielded significant differences. This indicated that theatre students were significantly more confident than visual art school students in their total self-concept. Table 5 reported the ANOVA post hoc test for total self-concept.

Table 5.
*ANOVA Post Hoc Tests for Total Self-Concept. * The mean difference is significant at the 0.05 level.*

(I) Art_domain	(J) Art_domain	Mean Difference (I-J)	Std. Error	Sig.
Music	Visual art	.12874	.08691	.451
	Dance	-.02072	.09209	.996
	Theatre	-.18302	.09014	.180
Visual art	Music	-.12874	.08691	.451
	Dance	-.14945	.09306	.377

	Theatre	-.31175*	.09113	.004
Dance	Music	.02072	.09209	.996
	Visual art	.14945	.09306	.377
	Theatre	-.16230	.09608	.332
Theatre	Music	.18302	.09014	.180
	Visual art	.31175*	.09113	.004
	Dance	.16230	.09608	.332

$H_0$5 was not rejected. The independent variable of the artistic domain did not significantly differ in academic self-concept level as measured by the scores on SDQ II, F(3,227)=1.631, p=.183. The academic self-concepts of art school students did not differ significantly according to the field of art they majored in. The overall academic self-concept was slightly high ($\bar{x}$=4.1725). Using MANOVA, hypothesis $H_0$6 was rejected. Significant differences were found in artistic self-concepts based on student's artistic domains, F (12,596)= 23.646, p<. 0005; Wilk's Λ = 0.357, partial $\eta 2$ = .291. Among the subscales of artistic self-concept, visual art self-concept had the highest mean ($\bar{x}$=4.2099), followed by music self-concept ($\bar{x}$=4.0875) and theatre self-concept ($\bar{x}$=4.0091). The dance self-concept of students ($\bar{x}$=3.7177) was moderate compared to the other subscales of artistic self-concept. There were only a few researches related with art and academic self-concept. However, a few recent studies determined that music could enhance students' academic self-concept (Degé et al., 2008; Degé & Schwarzer, 2017; Degé, Wehrum, Stark & Schwarzer, 2014; Shin, 2011). Previous studies also stated that dance could increase academic self-concept (Carter, 2004; McInman & Berger, 1993; Riggs, 1997).

In a closer scrutiny according to each subscale of ASPI, the artistic domain had a statistically significant effect on the ASPI subscale of music skill, F (3,228)=31.746; p<.0005; partial $\eta 2$ = .295, dance skill, F (3, 228)= 32.256, p<.0005; partial $\eta 2$ =.298, and theatre skill, F (3, 228)= 9.922; p<.0005; partial $\eta 2$ =.115, but not visual skill, F (3, 228)= 2.029, p<.0005; partial $\eta 2$ =.026. Art school students had a significantly higher perception of the artistic skills of their domain compared to those that were not, except for students with visual arts major.

Following up Tukey's post hoc procedure revealed mean differences for the artistic self-concept. For example, theatre students showed significant differences in the other three artistic domains in the self-concept subscale of theatre skill. There was no significant difference among the subscales of visual art, dance and music skill. Similar patterns were observed for the other subscales except for visual art skill. For the theatre self-concept, theatre students had the highest mean ($\bar{x}$=4.5593), while dance students had the lowest mean ($\bar{x}$=3.6725). Dance students had the highest dance self-concept ($\bar{x}$=4.8804), while visual arts students had the lowest dance self-concept ($\bar{x}$=3.1887).

Similar to the other artistic domains, visual arts students had the highest self-concept mean in their domain ($\bar{x}$=4.4113), and theatre students had the lowest visual art self-concept mean ($\bar{x}$=4.0315). Music students had high music self-concept ($\bar{x}$=5.0723), which was the highest mean of artistic self-concept. Meanwhile, dance students had the lowest music self-concept ($\bar{x}$=3.6059). This indicated that art school students had more confidence in their art ability according to their main artistic domain. Involvement in art curriculum caused a slightly high self-concept in art school students. This showed contrast with Uçar et al. (2017)'s studies which indicated that gifted students had low self-concept. Indeed, participation in creative and performing arts could boost students' artistic self-concept (Mansour et al., 2018). Previous research further indicated that music and theatre participation could develop a positive music self-concept (Degé, Wehrum, Stark & Schwarzer, 2009; Mawang, Kigen & Mutweleli, 2019; Rosevear, 2010) and theatre self-concept (Merriam & Grenier, 2019). Participation in arts could modify students' thinking and boost their self-reflection (Bolwerk, Mack-Andrick, Lang & Dörfler, 2014).

Association Between Self-concept and Academic Achievement ($H7_0$-$H9_0$). Using Pearson Correlation, hypothesis H07 was rejected. There was a positive association between total self-concept and overall art achievement., with r(231)=.168, p=.010. The higher the total self-concept, the higher the academic results of art school students. The students had an overall slightly high total self-concept mean ($\bar{x}$=4.2598). The result was similar to previous research that supported the effect of total self-concept on academic achievement (Peralta Sánchez & Sánchez Roda, 2003). However, there was no significant association when it came to each art achievement separately. This indicated that art students' total self-concept only affects their overall art achievement but not each art subject separately. This result also hinted at the possibilities of transfer effect, far transfer in this case, from language and mathematics to dance, music, theatre and visual arts, with the condition that the artistic domains were not treated separately but as a whole. Table 6 reported the result of Pearson Correlation for total self-concept and art achievement.

Table 6.
*Result of Pearson Correlation for total self-concept and art achievement. * Correlation is significant at the 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed).*

		Total SC	**Art Achiev.**	**Visual Art Achiev.**	**Dance Achiev.**	**Music Achiev.**	**Theatre Achiev.**
Total Self-concept	Pearson Correlation	1	.168*	.035	.118	.079	.077
	Sig. (2-tailed)		.010	.599	.073	.232	.242
	N	231	231	231	231	231	231

Art Achievement	Pearson Correlation	.168*	1	.569**	.594**	.109*	.587**
	Sig. (2-tailed)	.010		.000	.000	.049	.000
	N	231	327	327	327	327	327
Visual Art Achievement	Pearson Correlation	.035	.569**	1	.221**	-.286**	.129*
	Sig. (2-tailed)	.599	.000		.000	.000	.019
	N	231	327	327	327	327	327
Dance Achievement	Pearson Correlation	.118	.594**	.221**	1	-.300**	.176**
	Sig. (2-tailed)	.073	.000	.000		.000	.001
	N	231	327	327	327	327	327
Music Achievement	Pearson Correlation	.079	.109*	-.286**	-.300**	1	-.212**
	Sig. (2-tailed)	.232	.049	.000	.000		.000
	N	231	327	327	327	327	327
Theatre Achievement	Pearson Correlation	.077	.587**	.129*	.176**	-.212**	1
	Sig. (2-tailed)	.242	.000	.019	.001	.000	
	N	231	327	327	327	327	327

The result from the Pearson correlation rejected the H08 as well. There was a statistically significant association between academic self-concept and achievement of art subjects, r(231)=.200, p=.002. The academic self-concept could affect the art achievement of art school students. The students had a slightly high academic self-concept mean ($\bar{x}$=4.1725). It was evident that academic self-concept could enhance academic achievement (Eguavoen & Eniola, 2016; Mayanchi, Khan & Latif, 2019; Obilor; 2012). When comes to each art achievement, academic self-concep showed a significant association with dance achievement. This indicated that academic self-concept

could only predict the overall art achievement and dance achievement of art students. The result further indicated that academic self-concept on language and mathematics positively affected students' holistic achievement as art school student. Table 7 reported the result of Pearson Correlation for academic self-concept and art achievement.

Table 7.
*Result of Pearson Correlation for academic self-concept and art achievement. * Correlation is significant at the 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed).*

		Aca. SC	**Art Achiev.**	**Visual Art Achiev.**	**Dance Achiev.**	**Music Achiev.**	**Theatre Achiev.**
Academic Self-concept	Pearson Correlation	1	.200**	.058	.169*	.055	.085
	Sig. (2-tailed)		.002	.381	.010	.407	.196
	N	231	231	231	231	231	231
Art Achievement	Pearson Correlation	.200**	1	.569**	.594**	.109*	.587**
	Sig. (2-tailed)	.002		.000	.000	.049	.000
	N	231	327	327	327	327	327
Visual Art Achievement	Pearson Correlation	.058	.569**	1	.221**	-.286**	.129*
	Sig. (2-tailed)	.381	.000		.000	.000	.019
	N	231	327	327	327	327	327
Dance Achievement	Pearson Correlation	.169*	.594**	.221**	1	-.300**	.176**
	Sig. (2-tailed)	.010	.000	.000		.000	.001
	N	231	327	327	327	327	327
Music Achievement	Pearson Correlation	.055	.109*	-.286**	-.300**	1	-.212**

	Sig. (2-tailed)	.407	.049	.000	.000		.000
	N	231	327	327	327	327	327
Theatre Achievement	Pearson Correlation	.085	.587**	.129*	.176**	-.212**	1
	Sig. (2-tailed)	.196	.000	.019	.001	.000	
	N	231	327	327	327	327	327

Using Pearson Correlation, hypothesis H09 was not rejected. There was no significant association between artistic self-concept and academic achievement, r(232)=.082, p=.211. Artistic self-concept of art students did not affect overall art achievement. However, there was a significant association between artistic self-concept and music achievement. The artistic self-concept mean of students was slightly high ($\bar{x}$=4.0060). The result indicated that students' perception of their overall artistic ability did not affect their artistic achievement except for music. Report on the association between artistic self-concept and academic achievement is rare. Thus far, only Spychiger's research (2012) affirmed the role of artistic self-concept in academic achievement. The result showed a contrast with Spychiger's research. The result also rejected the research results that stated that non-academic self-concept could improve academic outcomes (Low & Zahari Ishak, 2014; Ogle et al., 2016). This is understandable as for this study. Table 8 reported the result of Pearson Correlation for artistic self-concept and art achievement.

Table 8.
*Result of Pearson Correlation for artistic self-concept and art achievement. *. Correlation is significant at the 0.05 level (2-tailed). **. Correlation is significant at the 0.01 level (2-tailed).*

		Artistic SC	**Art Achiev.**	**Visual Art Achiev.**	**Dance Achiev.**	**Music Achiev.**	**Theatre Achiev.**
Artistic Self-concept	Pearson Correlation	1	.082	-.043	.013	.160*	.022
	Sig. (2-tailed)		.211	.513	.840	.015	.740
	N	232	232	232	232	232	232

Art Achievement	Pearson Correlation	.082	1	.569**	.594**	.109*	.587**
	Sig. (2-tailed)	.211		.000	.000	.049	.000
	N	232	327	327	327	327	327
Visual Art Achievement	Pearson Correlation	-.043	.569**	1	.221**	-.286**	.129*
	Sig. (2-tailed)	.513	.000		.000	.000	.019
	N	232	327	327	327	327	327
Dance Achievement	Pearson Correlation	.013	.594**	.221**	1	-.300**	.176**
	Sig. (2-tailed)	.840	.000	.000		.000	.001
	N	232	327	327	327	327	327
Music Achievement	Pearson Correlation	.160*	.109*	-.286**	-.300**	1	-.212**
	Sig. (2-tailed)	.015	.049	.000	.000		.000
	N	232	327	327	327	327	327
Theatre Achievement	Pearson Correlation	.022	.587**	.129*	.176**	-.212**	1
	Sig. (2-tailed)	.740	.000	.019	.001	.000	
	N	232	327	327	327	327	327

Discussion

The overall self-concept of students was at a range recognised as “slightly-high“. The fact that the participants of artistic activities had a high level of self-concept was a testament to the notion of “transfer effect“that occurred within learners of the art curriculum. According to Ashley and Timmers (2017), a near transfer occurred when art activities directly influenced learners’ visual or auditory sense. A far transfer was related to the impact of art on non-artistic domains. However, the implication of the big-fish-lit-

tle-pond effect (BFLPE) theory was not apparent in the current study. Marsh and Parker (1984) proposed that when situated in a class of similar level of competencies, the talented group would have a lower self-concept compared to the less talented group. The data reported a slightly high self-concept mean, which did not support the BFLPE.

The study results revealed that the self-concepts of artistically talented students were significantly different according to their genders and the different artistic domains the students major in. The exception was with academic self-concept. In understanding SSeM students, their gender and their specific artistic domain can predict their level of general self-esteem and self-efficacy in artistic activities, but not their views of their language and mathematics skills. Academic abilities, mainly language and mathematical skills, are viewed by the artistically talented students as independent or unrelated to their identity and artistic endeavours.

Past research suggests that gender differences are tied to the type of arts majored by the students, though more findings are needed for this suggestion to be conclusive. For example, Wehr-Flowers (2006) reported a higher confidence level in jazz performance study by male students, while Lovatt (2011) reported that females showed a higher level of confidence than males in dance. As for this study, since the curriculum of the SSeM is comprehensive in that each student has to learn across several fields of the arts, the gender differences imply a different level of confidence in creative-performative work in general.

The study results revealed that the art school students had the highest artistic self-concept in their specific artistic domain, which reinforced the theories that talent, especially in the arts, was domain-specific (Olszewski-Kubilius, Subotnik & Worrell, 2017). Nevertheless, there were differences observed between the performing arts and the visual arts students. The artistic self-concepts of the performing arts students were significantly higher in their domains, i.e. music students were musically more confident than the non-music students. However, this was not the case for the visual art students. Unlike the theatre, music and dance students, the self-concepts of the visual arts students were less influenced by their own major.

As for the correlation between self-concepts and achievements in art subjects, the findings revealed that total self-concept and academic self-concept had significant positive associations with achievements in art subjects. In contrast, the artistic self-concept had little influence. These results should be understood within the context of the Malaysian Arts School curriculum design, which adopted a comprehensive cross-domain approach where all major students had to attend classes of all four domains in the first three years. The PT3 examination covered subjects of all domains. This specialised-general feature of the Malaysia Arts School may explain why total self-concept and academic self-concept are predictors but not artistic self-concept. Research, until now, has affirmed the notion of cognitive transfer from art activities to other areas. Visual art (T. Noice, H. Noice & Kramer, 2015), theatre (T. Noice et al., 2015), dance (Alves, 2014), and music (Buttriss & Callander, 2012) could all contribute to the enhancement of learners' cognitive abilities. Specialised students, such as the Malaysian Arts Students, present a different version of correlation in that only domain-specific self-concept is affirmative in determining their artistic outcomes.

Conclusion

To improve the quality of the education process and outcome in artistic/musical training, educational institutions could consider ways to promote a greater understanding of students' self-perceptions and self-image, besides focusing on the common aspects of quality education such as teacher training pedagogy material and facilities.

The profile of students' self-concept is a useful scheme to conceptualise and assess the impacts of any form of education disruptions. The hierarchical model of self-concept has a wide coverage of various aspects of a student. Thus, the profile of art school students' self-concept offers an integrated and student-centred model in evaluating the disruptions compared to the fragmented views of the disruptions as simply malpractices of an education system.

The transfer effects of self-concepts offer viable, practical solutions to ease the education disruptions. By searching through the vast literature that reported cases of self-concept research, educators could identify potential activities that could remediate the situation. For example, the literature had reported that engagement in artistic activities could enhance students' general self-concept. Another could be seen in González-Valero's (2020) report that found physical activity was positively associated with the self-concept of teenagers before and during the lockdown (González-Valero, 2020).

Every art school student has a self-concept level for different scope and domain. The characteristics of artistically talented students should be understood as a multi-layered construct. The profile of self-concepts offers a situated way of handling the disruptions. It helps to avoid the single-dimensional and simplified notion of a specific group of students, such as "music students are academically less confident". For example, a music major in the art school could view himself as a music student (domain-specific SC), a performing art student (artistic SC), a secondary school student (academic SC), and a person in general (general SC).

General and academic self-concepts have positive effects on art-school students. Moreover, the findings showed that the two generic self-concepts could predict artistically talented students' overall performance in art subject. Steps to safeguard and enhance the efficiency of general schooling are therefore important for an art school programme like that of the SSeM that aims to nurture all-rounded professionals in art.

Gender differences are significant in considering artistically talented students' self-esteem and resilience. Although gender differences affect students' self-concept differ greatly in each scenario, this study has confirmed with past research that gender significantly determines the level of self-concept. Therefore, strategies and measures formed to handle disruptions should be sensitive towards gender differences, recognising the more vulnerable gender in a certain scope and domain.

The local context particularity of the self-concept profile should be given consideration. The cultural and social backgrounds of Malaysian students and the specific way the curriculum was designed in the SSeM's curriculum to shape the outcome of the self-concept profile. This may help to understand deeper the moderate-high score of self-concept among the SSeM students and comprehend better several distinctive results of the study, such as why relational items like "parent relationship" are the highest

self-concept items among Malaysian students. The findings have also shown that emotional stability is one of the areas that need immediate attention.

Malaysia was a multiracial country consisting of three primary races (Malay, Chinese and Indian) and other minor groups. A comparative study on self-concept could be carried out between the races of this country. Besides, this study only involved Form Three art school students. A future study could include upper form students or other lower form students. Form five students could be selected as participants to see the change between PT3 and SPM. Comparison between different grade levels could also be made to make the findings more comprehensive and representative. Besides, the inclusion of non-art subjects can be suggested for future study. Self-concept included a multifaceted feature, but only total self-concept, academic self-concept and artistic self-concept were investigated in this study. Future research could also include non-academic self-concept, general self-concept or even domain-specific self-concept such as mathematics self-concept and honesty self-concept to see the associations in the broader horizon.

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