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Demographic Questionnaire

MAKLUMAT PERIBADI (Personal Information)

ARAHAN (Instruction)

Sila isikan maklumat diri anda pada boring ini. Maklumat ini adalah sulit untuk rujukan penyelidik sahaja.

(Please fill in your personal information in this form. This information is confidential and for the reference of the researcher only).

8. Pekerjaan Bapa - jika sudah meninggal, nyatakan kerjanya semasa hidup.
(Father's occupation – if he has passed away, state his occupation when he was alive)
-

Pekerjaan Penjaga - jika tiada bapa
(Guardian's occupation – if no father)

9. Pekerjaan Emak - jika sudah meninggal, nyatakan kerjanya semasa hidup.
(Mother's occupation – if she has passed away, state her occupation when she was alive)
-

Pekerjaan Penjaga - jika tiada emak
(Guardian's occupation – if no mother)

10. Peringkat pendidikan bapa dan emak - tandakan dengan √ di tempat yang sesuai.
(Parent's level of education – mark with √ at the suitable column.)

| Peringkat Pendidikan (Education Level) | Bapa (Father) | Penjaga (Guardian) | Emak (Mother) | Penjaga (Guardian) |
|--|------------------|-----------------------|------------------|-----------------------|
| Tiada pendidikan formal (No formal education) | | | | |
| Peringkat sekolah rendah (Primary school level) | | | | |
| Tingkatan 1 hingga 3 - SRP (Form 1 to 3 – LCE) | | | | |
| Tingkatan 4 hingga 5 – SPM (Form 4 to 5 – MCE) | | | | |

| Peringkat Pendidikan (Education Level) | Bapa (Father) | Penjaga (Guardian) | Emak (Mother) | Penjaga (Guardian) |
|---|------------------|-----------------------|------------------|-----------------------|
| Tingkatan 6 - STP/STPM Form 6 -HSC | | | | |
| Diploma / kolej (Diploma / college) | | | | |
| Ijazah Universiti (University degree) | | | | |

11. Kelayakan muzik anda.
(Your music qualification)

Contoh: **Gred 5 Piano** **ABRSM** **2010**
(Example: Grade 5 Piano)

| Kelayakan (Qualification) | Sijil (Certificate) | Tahun (Year) |
|------------------------------|------------------------|-----------------|
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Terima Kasih Atas Kerjasama Anda

SOAL SELIDIK PENGLIBATAN AKTIVITI MUZIKAL
(MUSICAL ACTIVITY INVOLVEMENT QUESTIONNAIRE)

Nama : _____
 (Name)

Penglibatan Aktiviti Muzikal secara Formal
(Formal Musical Activity Involvement)

Pernahkan anda menyertai aktiviti muzikal seperti koir, band, orkestra, kelas muzik persendirian, kumpulan gamelan atau mana-mana kumpulan persembahan? Soalan berikut adalah berkaitan dengan penglibatan muzikal anda yang lepas dan pada masa ini. Sila jawab soalan-soalan berikut.

(Have you ever participated in organized musical activities such as choir, band, orchestra, private lesson, gamelan, or other performance groups? The following asks you about your involvement in musical activities in the past and at present. Please answer the following questions.)

*Tandakan dengan **Ya** pada ruang penglibatan, dan tuliskan bilangan tahun penglibatan anda. Jika anda tidak melibatkan diri dalam aktiviti yang disenaraikan, tulis **Tiada**. Jika anda masih melibatkan diri dalam aktiviti tersebut, tulis **Ya** di lajur "masih melibatkan diri".*

*(Mark **Yes** on the column of participation and write the number of years of your participation. If you did not participate in the activity, please mark **No**. If you are currently participating in any musical activities please mark **Yes** on the "currently participating" column)*

| Jenis Aktiviti Muzikal (Kinds of Musical Activity) | Penglibatan (Participation) | Bilangan Tahun (Number of years) | Masih melibatkan diri? (Currently participating?) |
|---|--------------------------------|-------------------------------------|--|
| Band | | | |
| Orkestra | | | |
| Koir | | | |
| Gamelan | | | |
| Wind Band | | | |
| Rekoder Ensembel | | | |

| Jenis Aktiviti Muzikal (Kinds of Musical Activity) | Penglibatan (Participation) | Bilangan Tahun (Number of years) | Masih melibatkan diri? (Currently participating?) |
|---|--|---|--|
| Kelas persendirian | | | |
| Aktiviti lain, _____ | | | |

Penglibatan Muzikal yang Tidak Formal
(Informal Musical Activities Involvement)

Apakah aktiviti muzikal yang anda lakukan bersama keluarga atau rakan atau secara sendiri? Tandakan dengan X pada ruang aktiviti muzikal yang anda lakukan dan nyatakan purata jangkamasa yang diambil.

(What musical activities have you done with your family or friends or on your own? Please mark X on the column for the musical activities that you have done and describe how much you do.)

Contoh: Mendengar muzik
(Example: Music listening)

X

2 jam sehari
(2 hours a day)

| Jenis Aktiviti Muzikal (Kinds of Musical Activity) | Ada? (Yes?) | Berapa lama / kerap? (How much/ how often?) |
|--|----------------|--|
| Menonton TV rancangan muzik (Watch TV musical programs) | | |
| Mendengar muzik dengan CD, tape, MP3 (Listen to music from CDs, tapes, MP3) | | |
| Mendengar radio (Listen to radio) | | |
| Menyanyi (Singing) | | |
| Mencuba-cuba buat lagu (Making up a song) | | |
| Memainkan alat muzik (Playing musical instruments) | | |
| Menari (Dancing) | | |
| Menghadiri konsert (Got to concerts) | | |
| Lain-lain (Others) | | |

Terima Kasih Atas Kerjasama Anda

Aural Discrimination Test Answer Sheet**Ujian Pencapaian Muzik**

Nama pelajar: _____

Kumpulan: _____ Institut: _____

Jawab semua soalan di tempat yang disediakan.

- A1. Tandakan di dalam petak yang disediakan dengan huruf **T** untuk pic yang paling tinggi dan huruf **R** untuk pic yang paling rendah.

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A3. Tandakan dengan huruf S untuk pic yang sama.

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A4. Tuliskan solfa untuk pic yang kedua.

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A5. Tuliskan darjah skel di petak yang disediakan.

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A6. Tuliskan meter di dalam petak yang disediakan (2 atau 3).

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B1. Namakan kaden yang dimainkan.

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C1. Bulatkan not yang mempunyai pic yang berbeza dengan yang dimainkan.

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D1. Tuliskan **MAJOR** untuk nada major dan **MINOR** untuk nada minor.

1. _____ 2. _____ 3. _____

4. _____ 5. _____ 6. _____

7. _____ 8. _____ 9. _____

10. _____

Self-Esteem of Musical Ability Questionnaire

Pandangan Kendiri dalam Kemampuan Muzikal **Self-Esteem of Musical Ability**

Nama: _____

(Name)

Institut: _____ *Tahun:* _____

(Institution)

(Year)

Arahan:

(Directions:)

Berikut adalah pernyataan tentang kemampuan muzikal anda. Ada di antara pernyataan ini benar tentang anda; ada yang tidak. Baca setiap pernyataan.

(These are statements about your musical ability. Some may be **true** for you; others may **not**. Read each statement.)

Kemudian:

(Then:)

- a. *Kalau anda sangat tidak setuju bahawa pernyataan tersebut benar tentang diri anda, bulatkan STS di ruang satu.*
(If you strongly disagree that the statement is true for you, circle STS in column one.)
- b. *Kalau anda tidak setuju bahawa pernyataan tersebut benar tentang diri anda, bulatkan TS di ruang dua.*
(If you disagree that the statement is true for you, circle TS in column two.)
- c. *Kalau anda setuju bahawa pernyataan tersebut benar tentang diri anda, bulatkan S di ruang tiga.*
(If you agree that the statement is true for you, circle S in column three.)
- d. *Kalau anda sangat setuju bahawa pernyataan tersebut benar tentang diri anda, bulatkan SS di ruang empat.*
(If you strongly agree that the statement is true for you, circle SS in column four.)

STS - *Sangat tidak setuju* (Strongly disagree)

TS - *Tidak setuju* (Disagree)

S - *Setuju* (Agree)

SS - *Sangat setuju* (Strongly Agree)

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| <p>1. <i>Saya boleh baca muzik dengan baik.</i> I can read music well.</p> <p>2. <i>Pengetahuan muzik saya cukup untuk membantu rakan saya belajar muzik.</i> I know music well enough to help others learn it.</p> <p>3. <i>Saya boleh menulis muzik kalau saya dapat sedikit bimbingan.</i> I could write music if I got a little help.</p> <p>4. <i>Memimpin rakan dalam nyanyian atau permainan alat muzik adalah sukar bagi saya.</i> Leading others in singing or playing music would be difficult for me.</p> <p>5. <i>Saya boleh memainkan atau menyanyikan irama yang sukar.</i> I can play or sing difficult rhythms.</p> <p>6. <i>Saya fikir saya boleh menang dalam pertandingan muzik kalau saya benar-benar cuba.</i> I think I could win a music contest if I really tried.</p> <p>7. <i>Saya berasa gembira bila diminta menyanyi atau bermain alat muzik untuk orang lain.</i> I am glad when asked to sing or play for others.</p> <p>8. <i>Pensyarah muzik sering membuat saya rasa malu dengan menanya soalan yang saya tidak dapat jawab.</i> Music lectures often embarrass me by asking questions which I can't answer.</p> <p>9. <i>Saya gembira ibubapa saya menaruh harapan yang tinggi terhadap saya dalam muzik.</i> I am glad my parents expect a lot from me in music.</p> <p>10. <i>Pada kebiasaan saya berasa tidak selesa bila dikelilingi dengan muzik.</i> I usually feel uncomfortable when I am around music.</p> <p>11. <i>Saya rasa riang apabila ibubapa saya perasan kemajuan muzik saya dan memberi pujian kepada saya.</i> I feel good when my parents notice my progress in music and praise me.</p> <p>12. <i>Apabila saya renung dan fikir, saya benar benar percaya saya mempunyai bakat dalam muzik</i> When I stop and think about it. I really believe I'm talented in music.</p> <p>13. <i>Ibupada saya percaya saya boleh belajar bermain alat muzik atau menyanyi dengan amat baik.</i> My parents believe I can learn to play or sing very well.</p> | <p>STS TS S SS</p> |
|--|--|

14. *Pensyarah perasan kemajuan saya dalam muzik dan memberi saya kredit.* STS TS S SS
Lectures notice my progress in music and give me credit.
15. *Kawan-kawan saya benar-benar suka cara saya memain alat muzik atau nyanyian saya.* STS TS S SS
My friends really like my playing or singing.
16. *Pensyarah muzik saya tidak mengharapkan banyak daripada saya.* STS TS S SS
My music lecturers don't expect much of me.
17. *Saya berasal daripada keluarga ahli muzik.* STS TS S SS
I come from a musical family.
18. *Saya boleh memimpin kelas jika pensyarah muzik suruh saya menggantikan tempatnya.* STS TS S SS
I could lead the class if my music lecturers asked me to take their places.
19. *Saya rasa rakan saya akan ketawakan saya kalau saya membuat kesilapan dalam muzik.* STS TS S SS
I feel that friends would laugh at me if I made mistakes in music.
20. *Saya akan rasa gembira kalau pensyarah menyuruh saya bermain atau menyanyi untuk sesuatu program.* STS TS S SS
I'd be glad if lecturers asked me to play or sing for programs.
21. *Saya percaya saya boleh menjadi seorang pemain muzik atau penyanyi yang profesional.* STS TS S SS
I believe I could become a professional singer or player.
22. *Kawan-kawan perasan kemajuan saya dalam muzik dan memberi saya kredit ke atas kebolehan saya.* STS TS S SS
Friends notice my progress in music and give me credit for what I can do.
23. *Muzik sesuai untuk orang lain tetapi bukan untuk saya.* STS TS S SS
Music is all right for others but not for me.
24. *Saya tidak akan cukup baik untuk menyertai koir atau band di institut.* STS TS S SS
I will not be good enough to be in choir or band in college.
25. *Saya seronok memainkan muzik untuk orang lain.* STS TS S SS
I enjoy playing for others.
26. *Saya menaruh harapan yang tinggi pada diri saya dalam muzik.* STS TS S SS
I expect a lot of myself in music.

27. *Manusia se umur dengan saya kagumi kemahiran muzikal saya.* STS TS S SS
People my age admire my musical ability.
28. *Saya menghadapi kesukaran dalam kelas muzik sehingga saya sering berasa tidak berguna.* STS TS S SS
I have such a rough time in music class that I often feel worthless.
29. *Saya dapati diri saya membantu kawan dengan muzik mereka.* STS TS S SS
I find myself helping my friends with their music.
30. *Saya rasa gembira keluarga saya suka mendengar persembahan muzik saya.* STS TS S SS
I am glad my family likes to listen to me perform music.
31. *Muzik adalah lebih sukar bagi saya dibandingkan dengan pelajar lain.* STS TS S SS
Music is harder for me than for the other students.
32. *Saya tidak berpuas hati dengan kemajuan muzik saya.* STS TS S SS
I am not satisfied with my progress in music.
33. *Sekurang-kurangnya terdapat seorang ahli keluarga saya yang menyatakan bahawa saya benar-benar baik dalam muzik.* STS TS S SS
At least one member of my family says I am really good in music.
34. *Saya ingin mendapat kerjaya profesional dalam bidang muzik.* STS TS S SS
I would like to have a professional career in music.
35. *Pada kebiasaananya, saya gemar berlatih muzik.* STS TS S SS
Usually I enjoy practicing music.
36. *Saya suka apabila pensyarah muzik memberi latihan muzik yang susah.* STS TS S SS
I like it when music lecturers give me difficult music to learn.
37. *Kalau rakan saya memilih ketua pasukan muzik, saya rasa mereka akan pilih saya.* STS TS S SS
If my friends chose a music leader, they would probably pick me.
38. *Kawan-kawan kadang kala minta saya bermain alat muzik atau menyanyi bersama mereka.* STS TS S SS
Other friends sometimes ask me to play or sing with them.
39. *Saya menjangka akan bermain atau menyanyi dalam kumpulan persembahan di institut.* STS TS S SS
I expect to play or sing in performing groups in college.

- | | |
|--|---|
| <p>40. <i>Tiada orang di rumah memberi perhatian terhadap aktiviti muzikal saya.</i> No one pays much attention to my musical activities at home.</p> <p>41. <i>Saya tidak mempunyai seorang kawan langsung yang akan menyatakan bahawa saya baik dalam muzik.</i> I don't have even one friend who would say I am any good in music.</p> <p>42. <i>Saya berlatih dengan tekun kerana pensyarah saya fikir saya boleh buat dengan terbaik dalam muzik.</i> I practice more because my lecturer thinks I can do well in music.</p> <p>43. <i>Dibandingkan dengan pelajar yang lain, saya rasa saya berbakat.</i> Compared with other students, I think I am talented.</p> | <p>STS TS S SS</p> <p>STS TS S SS</p> <p>STS TS S SS</p> <p>STS TS S SS</p> |
|--|---|

Terima Kasih Atas Kerjasama Anda

Scoring Sheet of Torrance Test of Creative Thinking, Figural Form A

| | Fluency | Originality* | Elaboration | Titles | Closure | Emotion | Storytelling Articulateness | Movement or Action | Expressiveness of Titles | Synthesis of Incomplete Figures | Synthesis of Lines (Circles) | Unusual Visualization | Internal Visualization | Extending Boundaries | Humor | Richness | Colorfulness | Fantasy |
|------------------------------|---------|--------------|-------------|--------|---------|---------|-----------------------------|--------------------|--------------------------|---------------------------------|------------------------------|-----------------------|------------------------|----------------------|-------|----------|--------------|---------|
| | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| Totals for Activity 1 | | | | | | | | | | | | | | | | | | |
| 1 | X | | | | X | | | | | N/A | N/A | | | X | | | | |
| 2 | | N/A | | | | | | | | | | | | | | | | |
| Totals for Activity 2 | | | | | | | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | | | | | | | |
| 24 | | | | | | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | | | | | | |
| 26 | | | | | | | | | | | | | | | | | | |
| 27 | | | | | | | | | | | | | | | | | | |
| 28 | | | | | | | | | | | | | | | | | | |
| 29 | | | | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | | | | |
| Totals for Activity 3 | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |

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*Bonus points may be awarded in Activities 2 and 3 for Originality.

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Scoring Sheet of Torrance Test of Creative Thinking, Figural Form A

| STREAMLINED SCORING WORKSHEET—REVISED EDITION TORRANCE® TESTS OF CREATIVE THINKING, FIGURAL FORMS A and B | | | | | |
|--|------------------|---------------|---------------|--|--|
| Name: _____ | Test Date: _____ | Form: _____ | | | |
| Grade: _____ | Age: _____ | Gender: _____ | School: _____ | | |

| | | | | | | Raw Score | National Percentile Age | Standard Score Age | National Percentile Grade | Standard Score Grade |
|---|---------|--|--|--|--|-----------|-------------------------|--------------------|---------------------------|----------------------|
| 1. Fluency: Act. 2 _____ + Act. 3 _____ | = _____ | | | | | | | | | |
| 2. Originality: Act. 1 _____ + Act. 2 _____ + Bonus _____ + Act. 3 _____ + Bonus _____ | = _____ | | | | | | | | | |
| 3. Elaboration (Circle appropriate number 1–6 for A or B) | = _____ | | | | | | | | | |
| A { Act. 1: 1 (0–5) 2 (6–12) 3 (13–19) 4 (20–26) 5 (27–33) 6 (34+) Act. 2: 1 (0–8) 2 (9–17) 3 (18–28) 4 (29–39) 5 (40–50) 6 (51+) Act. 3: 1 (0–7) 2 (8–16) 3 (17–27) 4 (28–37) 5 (38–47) 6 (48+) | | | | | | | | | | |
| B { Act. 1: 1 (0–5) 2 (6–13) 3 (14–21) 4 (22–29) 5 (30–37) 6 (38+) Act. 2: 1 (0–9) 2 (10–19) 3 (20–29) 4 (30–39) 5 (40–49) 6 (50+) Act. 3: 1 (0–14) 2 (15–24) 3 (25–34) 4 (35–44) 5 (45–54) 6 (55+) | | | | | | | | | | |
| 4. Abstractness of Titles: Act. 1 _____ + Act. 2 _____ | = _____ | | | | | | | | | |
| 5. Resistance to Premature Closure: Act. 2 _____ | = _____ | | | | | | | | | |
| Sum of Standard Scores | = _____ | | | | | | | | | |
| Average Standard Score | = _____ | | | | | | | | | |

| Ability | Interpretation | | | | | |
|------------------------------------|----------------|--|--|--|--|--|
| 1. Fluency | | | | | | |
| 2. Originality | | | | | | |
| 3. Elaboration | | | | | | |
| 4. Abstractness of Titles | | | | | | |
| 5. Resistance to Premature Closure | | | | | | |

Standard Score 40 60 80 100 120 140 160 180
Percentile 2 16 50 84 98 99+

Check

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SERVICES INC**

- 4. Expressiveness of Titles 1 or 2 = +, 3 or more = ++
- 5. Synthesis of Incomplete Figures (combination of 2 or more) 1 or 2 combinations = +, 3 or more combinations = ++
- 6. Synthesis of Lines (combination of 2 or more sets, Activity 3, Form A) 1 or 2 combinations = +, 3 or more combinations = ++ or
Synthesis of Circles (combination of 2 or more, Activity 3, Form B) 1 or 2 combinations = +, 3 more combinations = ++
- 7. Unusual Visualization (above, below, at angle, etc.) 1 or 2 = +, 3 or more = ++
- 8. Internal Visualization (inside, cross section, etc.) 1 or 2 = +, 3 or more = ++
- 9. Extending or Breaking Boundaries (outside the box, lines, circles) 1 or 2 = +, 3 or more = ++
- 10. Humor (in titles, captions, drawings, etc.) 1 or 2 = +, 3 or more = +
- 11. Richness of Imagery (variety, vividness, strength, etc.) 4 or 5 responses = +, 6 or more responses = ++
- 12. Colorfulness of Imagery (excitingness, earthiness, etc.) 1 or 2 = +, 3 or more = ++
- 13. Fantasy (figures in myths, fables, fairy tales, science fiction, etc.) 1 or 2 = +, 3 or more = ++

Creativity Index by Age:

Average Standard Score by Age _____ + Bonus _____ = _____ Creativity Index by Age _____ National Percentile

Creativity Index by Grade:

Average Standard Score by Grade _____ + Bonus _____ = _____ Creativity Index by Grade _____ National Percentile

Comments: _____

Torrance Test of Creative Thinking

Answer Sheet for Activity 1

Activity 1. PICTURE CONSTRUCTION

On the opposite page is a curved shape. Think of a picture or an object which you can draw with this shape as a part.

Try to think of a picture that no one else will think of. Keep adding new ideas to your first idea to make it tell as interesting and as exciting a story as you can.

When you have completed your picture, think up a name or title for it and write it at the bottom of the page in the space provided. Make your title as clever and unusual as possible. Use it to help tell your story.

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YOUR TITLE: _____

Torrance Test of Creative Thinking

Answer Sheet for Activity 2

Activity 2. PICTURE COMPLETION

By adding lines to the incomplete figures on this and the next page, you can sketch some interesting objects or pictures. Again, try to think of some picture or object that no one else will think of. Try to make it tell as complete and as interesting a story as you can by adding to and building up your first idea. Make up an interesting title for each of your drawings and write it at the bottom of each block next to the number of the figure.



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3. _____

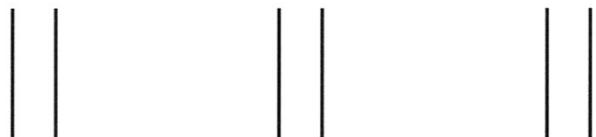
4. _____

Torrance Test of Creative Thinking

Answer Sheet for Activity 3

Activity 3. LINES

In ten minutes see how many objects or pictures you can make from the pairs of straight lines below and on the next two pages. The pairs of straight lines should be the main part of whatever you make. With pencil or crayon add lines to the pairs of lines to complete your picture. You can place marks between the lines, on the lines, and outside the lines—wherever you want to in order to make your picture. Try to think of things that no one else will think of. Make as many different pictures or objects as you can and put as many ideas as you can in each one. Make them tell as complete and as interesting a story as you can. Add names or titles in the spaces provided.



1. _____ 2. _____ 3. _____

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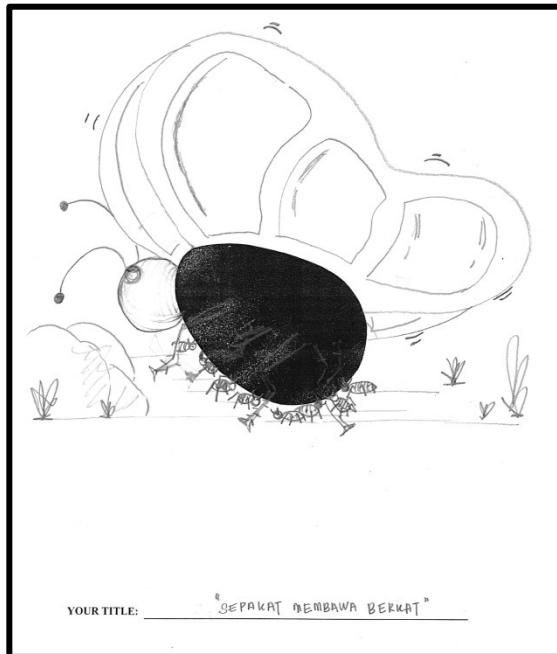


4. _____ 5. _____ 6. _____

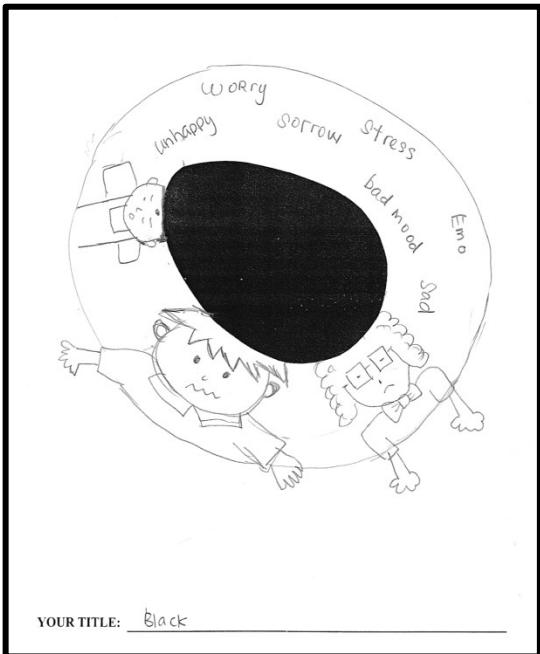
Examples of the Torrance Test of Creative Thinking

Activity 1

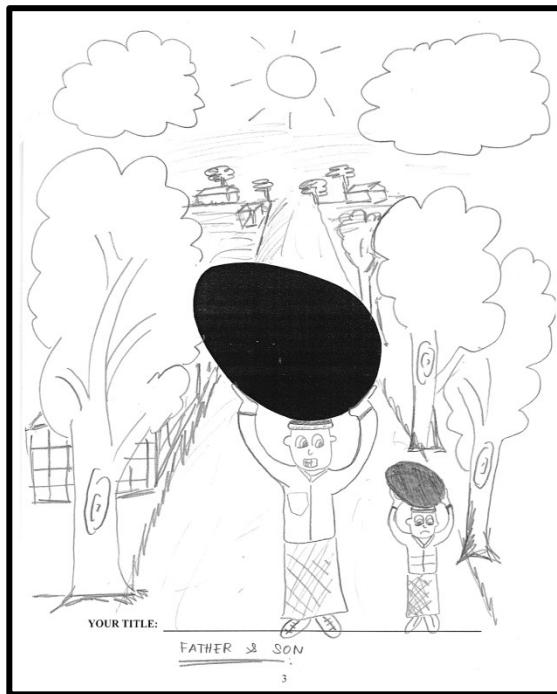
Example 1



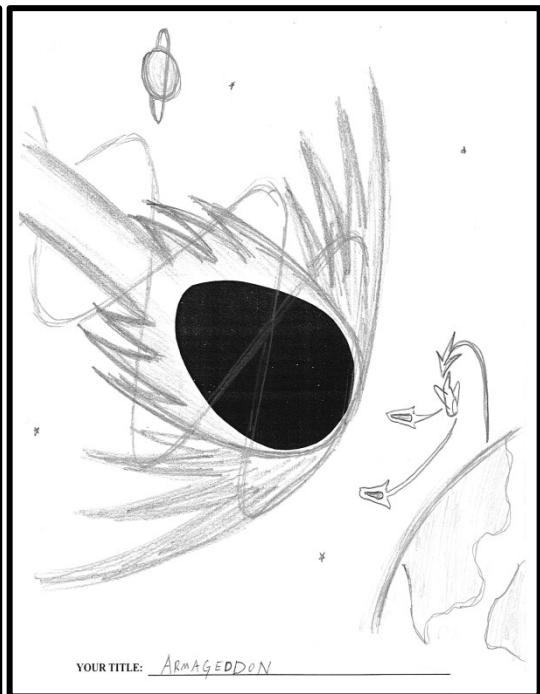
Example 2



Example 3

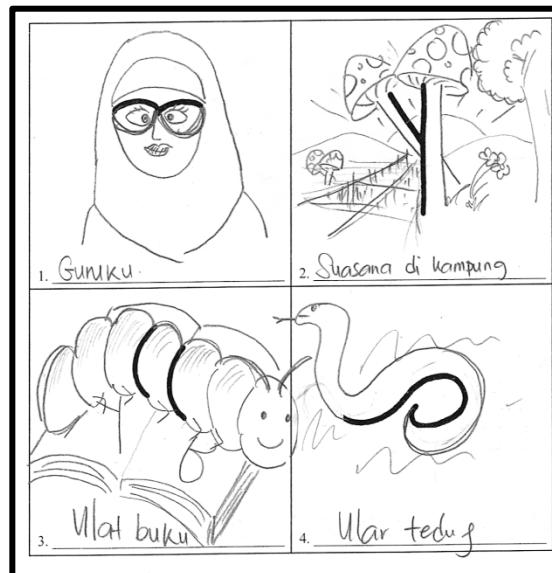


Example 4

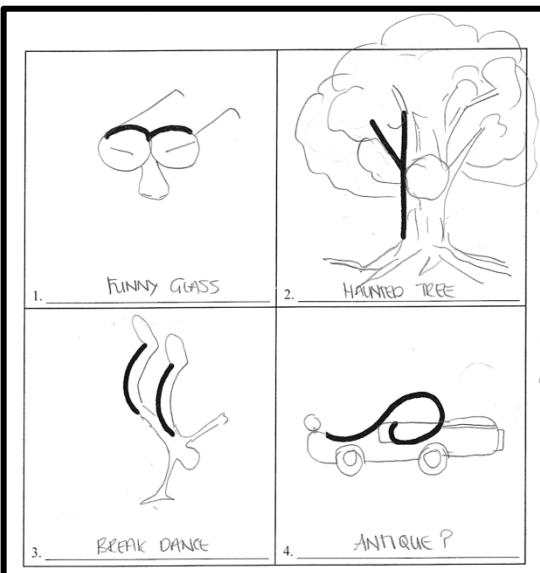


Activity 2

Example 1



Example 2



Example 3

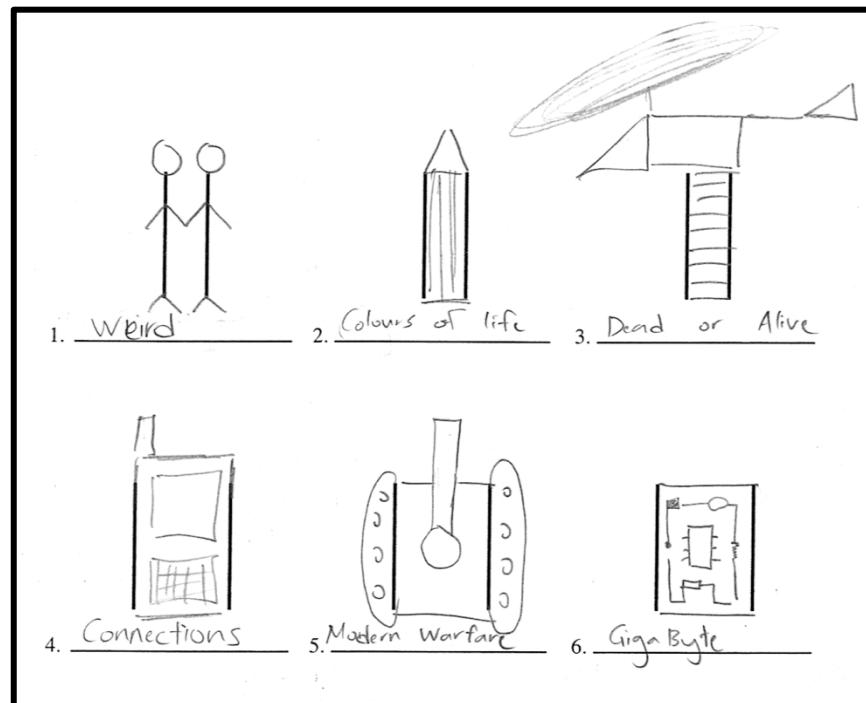


Example 4

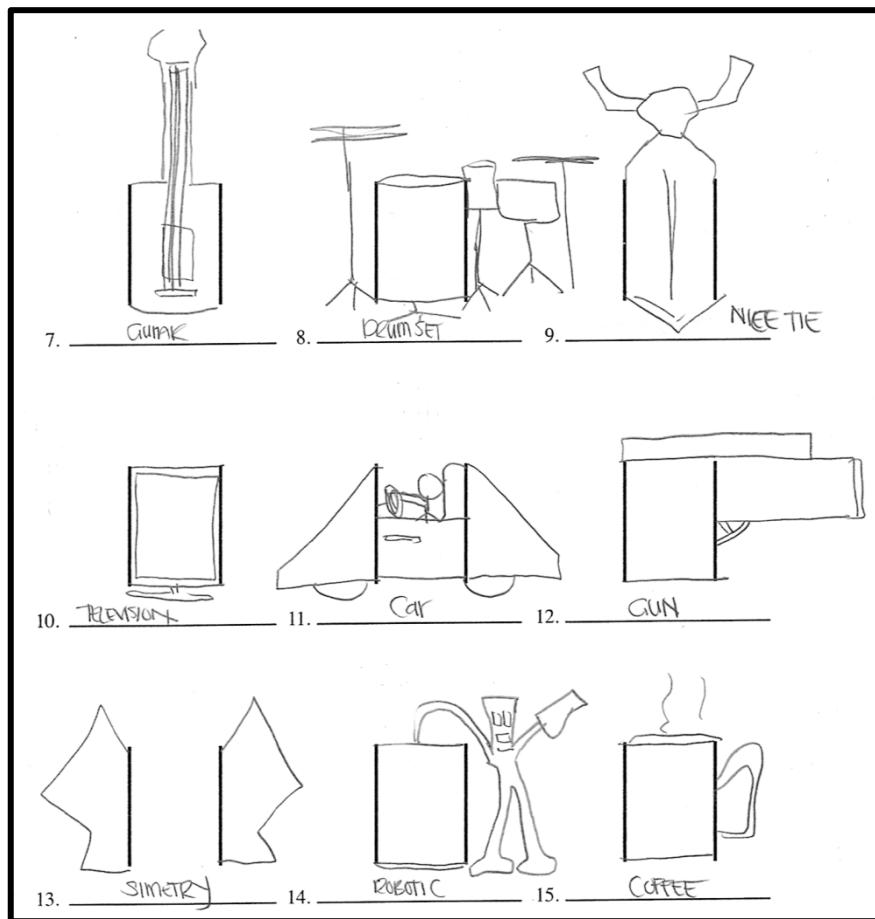


Activity 3

Example 1



Example 2



Results of Tukey HSD test

1. Results of Tukey HSD test: Summary of One-way ANOVA for Differences between Ethnicity and Components of Aural discrimination

| Aural discrimination | (I) Ethnic | (J) Ethnic | Mean | | |
|--------------------------------|------------|------------|---------------------|------------|--------|
| | | | Difference (I-J) | Std. Error | p |
| Pitch Discrimination | Malay | Chinese | -4.10* | 1.03 | .00*** |
| | | Others | -.66 | 1.61 | .91 |
| | | Chinese | 4.10* | 1.03 | .00*** |
| | Others | Malay | 3.44 | 1.63 | .09 |
| | | Others | .66 | 1.61 | .91 |
| | | Chinese | -3.44 | 1.63 | .09 |
| Interval Discrimination | Malay | Chinese | -4.03* | .98 | .00*** |
| | | Others | -.78 | 1.53 | .87 |
| | | Chinese | 4.03* | .98 | .00*** |
| | Others | Malay | 3.26 | 1.55 | .09 |
| | | Others | .78 | 1.53 | .87 |
| | | Chinese | -3.26 | 1.55 | .09 |
| Meter Discrimination | Malay | Chinese | -.48 | .26 | .17 |
| | | Others | .71 | .41 | .20 |
| | | Chinese | .48 | .27 | .17 |
| | Others | Malay | 1.19* | .42 | .01** |
| | | Others | -.71 | .41 | .20 |
| | | Chinese | -1.19* | .42 | .01** |
| Cadence Recognition | Malay | Chinese | .37 | .36 | .56 |
| | | Others | .51 | .56 | .64 |
| | | Chinese | -.37 | .36 | .56 |
| | Others | Malay | .14 | .56 | .97 |
| | | Others | -.51 | .56 | .64 |
| | | Chinese | -.14 | .56 | .97 |
| Auditory-Visual Discrimination | Malay | Chinese | -1.47* | .32 | .00*** |
| | | Others | .76 | .51 | .29 |
| | | Chinese | 1.47* | .32 | .00*** |
| | Others | Malay | 2.23* | .51 | .00*** |
| | | Others | -.76 | .51 | .29 |
| | | Chinese | -2.23* | .51 | .00*** |
| Mode Discrimination | Malay | Chinese | -.23 | .22 | .54 |
| | | Others | -.59 | .34 | .20 |
| | | Chinese | .26 | .22 | .54 |
| | Others | Malay | -.36 | .35 | .56 |
| | | Others | .59 | .34 | .20 |
| | | Chinese | .36 | .35 | .56 |

Note. *significant at $p < .05$, **significant at $p < .01$, ***significant at $p < .001$

2. Results of Tukey HSD test: Summary of One-way ANOVA for Differences between Academic year and Components of Aural Discrimination

| Aural Discrimination | <i>(I) Year</i> | <i>(J) Year</i> | <i>Mean</i> | | |
|----------------------------|-----------------|-----------------|-----------------------------------|-------------------|----------|
| | | | <i>Difference</i> <i>(I-J)</i> | <i>Std. Error</i> | <i>p</i> |
| Pitch Discrimination | Year 1 | Year 2 | -3.55 | 1.76 | .18 |
| | | Year 3 | -4.33* | 1.62 | .04* |
| | | Year 4 | -2.77 | 1.54 | .28 |
| | Year 2 | Year 1 | 3.55 | 1.76 | .18 |
| | | Year 3 | .77 | 1.50 | .95 |
| | | Year 4 | .78 | 1.42 | .94 |
| | Year 3 | Year 1 | 4.33* | 1.62 | .04* |
| | | Year 2 | .77 | 1.50 | .95 |
| | | Year 4 | 1.56 | 1.23 | .58 |
| | Year 4 | Year 1 | 2.77 | 1.54 | .28 |
| | | Year 2 | -.78 | 1.42 | .94 |
| | | Year 3 | -1.56 | 1.23 | .58 |
| Interval Discrimination | Year 1 | Year 2 | -3.03 | 1.64 | .25 |
| | | Year 3 | -3.67 | 1.51 | .07 |
| | | Year 4 | .25 | 1.44 | .99 |
| | Year 2 | Year 1 | 3.03 | 1.64 | .25 |
| | | Year 3 | -.64 | 1.40 | .96 |
| | | Year 4 | 3.28 | 1.32 | .06 |
| | Year 3 | Year 1 | 3.67 | 1.51 | .07 |
| | | Year 2 | .64 | 1.40 | .96 |
| | | Year 4 | 3.92* | 1.15 | .01** |
| | Year 4 | Year 1 | -.25 | 1.44 | .99 |
| | | Year 2 | -3.28 | 1.32 | .06 |
| | | Year 3 | -3.92* | 1.15 | .01** |
| Meter Discrimination | Year 1 | Year 2 | .67 | .44 | .43 |
| | | Year 3 | .02 | .41 | 1.00 |
| | | Year 4 | .10 | .39 | .99 |
| | Year 2 | Year 1 | -.67 | .44 | .43 |
| | | Year 3 | -.65 | .38 | .32 |
| | | Year 4 | -.57 | .36 | .38 |
| | Year 3 | Year 1 | -.02 | .41 | 1.00 |
| | | Year 2 | .65 | .38 | .32 |
| | | Year 4 | .07 | .31 | .99 |
| | Year 4 | Year 1 | -.10 | .39 | .99 |
| | | Year 2 | .57 | .36 | .38 |
| | | Year 3 | -.07 | .31 | .99 |
| Cadence Recognition | Year 1 | Year 2 | -1.25 | .53 | .09 |
| | | Year 3 | -.12 | .49 | .99 |
| | | Year 4 | 1.21 | .47 | .05 |
| | Year 2 | Year 1 | 1.25 | .53 | .09 |
| | | Year 3 | 1.12 | .46 | .07 |
| | | Year 4 | 2.47* | .43 | .00*** |

Continues

| | | | | | |
|-----------------------------------|--------|--------|--------|-----|--------|
| | Year 3 | Year 1 | .12 | .49 | .99 |
| | | Year 2 | -1.12 | .46 | .07 |
| | | Year 4 | 1.34* | .37 | .00** |
| | Year 4 | Year 1 | -1.21 | .47 | .05 |
| | | Year 2 | -2.47* | .43 | .00*** |
| | | Year 3 | -1.34* | .37 | .00** |
| Auditory-visual Discrimination | Year 1 | Year 2 | -.33 | .57 | .94 |
| | | Year 3 | -1.12 | .52 | .14 |
| | | Year 4 | -.16 | .50 | .98 |
| | Year 2 | Year 1 | .33 | .57 | .94 |
| | | Year 3 | -.78 | .48 | .36 |
| | | Year 4 | .16 | .46 | .98 |
| | Year 3 | Year 1 | 1.12 | .52 | .14 |
| | | Year 2 | .79 | .48 | .36 |
| | | Year 4 | .96 | .40 | .08 |
| | Year 4 | Year 1 | .16 | .50 | .98 |
| | | Year 2 | -.16 | .46 | .98 |
| | | Year 3 | -.96 | .40 | .08 |
| Mode Discrimination | Year 1 | Year 2 | -.55 | .36 | .43 |
| | | Year 3 | -.12 | .33 | .98 |
| | | Year 4 | .00 | .31 | 1.00 |
| | Year 2 | Year 1 | .55 | .36 | .43 |
| | | Year 3 | .42 | .31 | .52 |
| | | Year 4 | .55 | .29 | .23 |
| | Year 3 | Year 1 | .12 | .33 | .98 |
| | | Year 2 | -.42 | .31 | .52 |
| | | Year 4 | .13 | .25 | .95 |
| | Year 4 | Year 1 | -.00 | .31 | 1.00 |
| | | Year 2 | -.55 | .29 | .23 |
| | | Year 3 | -.13 | .25 | .95 |

Note. *significant at $p < .05$, **significant at $p < .01$, ***significant at $p < .001$

3. Results of Tukey HSD test: Summary of One-way ANOVA for Differences between Ethnicity and Components of Musical Creativity

| Musical Creativity | (I) Ethnic | (J) Ethnic | Mean | | |
|---|------------|------------|---------------------|------------|--------|
| | | | Difference (I-J) | Std. Error | p |
| Musical Fluency | Malay | Chinese | -.64* | .25 | .04* |
| | | Others | .46 | .40 | .49 |
| | | Chinese | .64* | .25 | .04* |
| | Others | Malay | 1.10* | .40 | .02* |
| | | Others | -.46 | .40 | .49 |
| | | Chinese | -1.10* | .40 | .02* |
| Musical Originality | Malay | Chinese | -.36 | .27 | .37 |
| | | Others | .01 | .42 | 1.00 |
| | Chinese | Malay | .36 | .27 | .37 |
| | | Others | .37 | .43 | .65 |
| | Others | Malay | -.01 | .42 | 1.00 |
| | | Chinese | -.37 | .43 | .65 |
| Musical Elaboration | Malay | Chinese | -1.07* | .28 | .00*** |
| | | Others | .08 | .43 | .98 |
| | Chinese | Malay | 1.07* | .28 | .00*** |
| | | Others | 1.16* | .44 | .03* |
| | Others | Malay | -.08 | .43 | .98 |
| | | Chinese | -1.16* | .44 | .03* |
| Musical Resistance to Premature Closure | Malay | Chinese | -.56 | .25 | .06 |
| | | Others | .12 | .39 | .94 |
| | Chinese | Malay | .56 | .25 | .06 |
| | | Others | .68 | .39 | .19 |
| | Others | Malay | -.12 | .39 | .94 |
| | | Chinese | -.68 | .39 | .19 |
| Musical Abstractness of Title | Malay | Chinese | .04 | .18 | .96 |
| | | Others | -.13 | .28 | .89 |
| | Chinese | Malay | -.04 | .18 | .96 |
| | | Others | -.17 | .29 | .81 |
| | Others | Malay | .13 | .28 | .89 |
| | | Chinese | .17 | .29 | .81 |
| Craftsmanship | Malay | Chinese | -.63* | .26 | .04* |
| | | Others | -.16 | .40 | .91 |
| | Chinese | Malay | .63* | .26 | .04* |
| | | Others | .47 | .41 | .49 |
| | Others | Malay | .16 | .40 | .91 |
| | | Chinese | -.47 | .41 | .49 |
| Musical Syntax | Malay | Chinese | -.46 | .26 | .20 |
| | | Others | .20 | .41 | .87 |
| | Chinese | Malay | .46 | .26 | .20 |
| | | Others | .67 | .42 | .25 |
| | Others | Malay | -.20 | .41 | .87 |
| | | Chinese | -.67 | .42 | .25 |

Continues

| | | | | | |
|---------------------|---------|---------|------|-----|-----|
| Musical Sensitivity | Malay | Chinese | -.66 | .28 | .05 |
| | | Others | .16 | .43 | .92 |
| | Chinese | Malay | .66 | .28 | .05 |
| | | Others | .83 | .44 | .14 |
| Others | Malay | Malay | -.16 | .43 | .92 |
| | | Chinese | -.83 | .44 | .14 |
| Repetition of Song | Malay | Chinese | -.00 | .13 | .99 |
| | | Others | -.40 | .21 | .15 |
| | Chinese | Malay | .00 | .13 | .99 |
| | | Others | -.39 | .21 | .17 |
| | Others | Malay | .40 | .21 | .15 |
| | | Chinese | .39 | .21 | .17 |

Note. *significant at $p < .05$, ***significant at $p < .001$

4. Results of Tukey HSD test: Summary of One-way ANOVA for Differences between Academic years and Components of Musical Creativity

| Musical Creativity | (I) Year | (J) Year | Mean Difference (I-J) | Std. Error | p |
|---------------------|----------|----------|--------------------------|------------|------|
| Musical Fluency | Year 1 | Year 2 | -.18 | .44 | .97 |
| | | Year 3 | -.05 | .40 | 1.00 |
| | | Year 4 | .47 | .38 | .61 |
| | Year 2 | Year 1 | .18 | .44 | .97 |
| | | Year 3 | .13 | .37 | .98 |
| | | Year 4 | .65 | .35 | .25 |
| | Year 3 | Year 1 | .05 | .40 | 1.00 |
| | | Year 2 | -.13 | .37 | .98 |
| | | Year 4 | .52 | .31 | .33 |
| | Year 4 | Year 1 | -.41 | .38 | .61 |
| | | Year 2 | -.65 | .35 | .25 |
| | | Year 3 | -.52 | .31 | .33 |
| Musical Originality | Year 1 | Year 2 | -.50 | .45 | .68 |
| | | Year 3 | -.63 | .41 | .42 |
| | | Year 4 | .01 | .39 | 1.00 |
| | Year 2 | Year 1 | .50 | .45 | .68 |
| | | Year 3 | -.13 | .38 | .99 |
| | | Year 4 | .52 | .36 | .48 |
| | Year 3 | Year 1 | .63 | .41 | .42 |
| | | Year 2 | .13 | .38 | .99 |
| | | Year 4 | .65 | .32 | .17 |
| | Year 4 | Year 1 | -.01 | .39 | 1.00 |
| | | Year 2 | -.52 | .36 | .48 |
| | | Year 3 | -.65 | .32 | .17 |

Continues

| | | | | | |
|---|--------|---------|-------|-----|-------|
| Musical Elaboration | Year 1 | Year 2 | -.61 | .49 | .59 |
| | | Year 3 | -.19 | .45 | .97 |
| | | Year 4 | -.14 | .43 | .99 |
| | Year 2 | Year 1 | .61 | .49 | .59 |
| | | Year 3 | .42 | .42 | .74 |
| | | Year 4 | .47 | .39 | .63 |
| | Year 3 | Year 1 | .19 | .45 | .97 |
| | | Year 2 | -.42 | .42 | .74 |
| | | Year 4 | .05 | .34 | 1.00 |
| | Year 4 | Year 1 | .14 | .43 | .99 |
| | | Year 2 | -.47 | .39 | .63 |
| | | Year 3 | -.05 | .34 | 1.00 |
| Musical Resistance To Premature Closure | Year 1 | Year 2 | -.11 | .42 | .99 |
| | | Year 3 | .02 | .38 | 1.00 |
| | | Year 4 | .60 | .36 | .35 |
| | Year 2 | Year 1 | .11 | .42 | .99 |
| | | Year 3 | .13 | .36 | .98 |
| | | Year 4 | .71 | .34 | .15 |
| | Year 3 | Year 1 | -.02 | .38 | 1.00 |
| | | Year 2 | -.13 | .36 | .98 |
| | | Year 4 | .57 | .29 | .20 |
| | Year 4 | Year 1 | -.60 | .36 | .35 |
| | | Year 2 | -.71 | .34 | .15 |
| | | Year 43 | -.57 | .29 | .20 |
| Musical Abstractness of Title | Year 1 | Year 2 | -.10 | .31 | .99 |
| | | Year 3 | -.34 | .28 | .61 |
| | | Year 4 | -.26 | .27 | .76 |
| | Year 2 | Year 1 | .10 | .31 | .99 |
| | | Year 3 | -.23 | .26 | .80 |
| | | Year 4 | -.15 | .25 | .92 |
| | Year 3 | Year 1 | .34 | .28 | .61 |
| | | Year 2 | .23 | .26 | .80 |
| | | Year 4 | .08 | .21 | .98 |
| | Year 4 | Year 1 | .26 | .27 | .76 |
| | | Year 2 | .15 | .25 | .92 |
| | | Year 3 | -.08 | .21 | .98 |
| Craftsmanship | Year 1 | Year 2 | -.02 | .42 | 1.00 |
| | | Year 3 | .16 | .39 | .98 |
| | | Year 4 | 1.08* | .37 | .02* |
| | Year 2 | Year 1 | .02 | .42 | 1.00 |
| | | Year 3 | .19 | .36 | .95 |
| | | Year 4 | 1.11* | .34 | .01** |
| | Year 3 | Year 1 | -.16 | .39 | .98 |
| | | Year 2 | -.19 | .36 | .95 |
| | | Year 4 | .92* | .30 | .01** |

Continues

| | | | | | |
|---------------------|--------|--------|--------|-----|-------|
| | Year 4 | Year 1 | -1.08* | .37 | .02 |
| | | Year 2 | -1.11* | .34 | .01** |
| | | Year 3 | -.92* | .30 | .01** |
| Musical Syntax | Year 1 | Year 2 | -.18 | .44 | .97 |
| | | Year 3 | -.25 | .40 | .93 |
| | | Year 4 | .53 | .39 | .51 |
| | Year 2 | Year 1 | .18 | .44 | .97 |
| | | Year 3 | -.06 | .38 | 1.00 |
| | | Year 4 | .72 | .36 | .18 |
| | Year 3 | Year 1 | .25 | .40 | .93 |
| | | Year 2 | .06 | .38 | 1.00 |
| | | Year 4 | .79 | .31 | .06 |
| | Year 4 | Year 1 | -.54 | .39 | .51 |
| | | Year 2 | -.72 | .36 | .18 |
| | | Year 3 | -.79 | .31 | .06 |
| Musical Sensitivity | Year 1 | Year 2 | -.16 | .47 | .99 |
| | | Year 3 | -.39 | .43 | .80 |
| | | Year 4 | .30 | .41 | .88 |
| | Year 2 | Year 1 | .16 | .47 | .99 |
| | | Year 3 | -.24 | .40 | .94 |
| | | Year 4 | .46 | .38 | .62 |
| | Year 3 | Year 1 | .39 | .43 | .80 |
| | | Year 2 | .24 | .40 | .94 |
| | | Year 4 | .70 | .33 | .15 |
| | Year 4 | Year 1 | -.30 | .41 | .88 |
| | | Year 2 | -.46 | .38 | .62 |
| | | Year 3 | -.70 | .33 | .15 |
| Repetition of Song | Year 1 | Year 2 | -.04 | .23 | 1.00 |
| | | Year 3 | -.11 | .21 | .95 |
| | | Year 4 | .04 | .20 | 1.00 |
| | Year 2 | Year 1 | .04 | .23 | 1.00 |
| | | Year 3 | -.07 | .20 | .99 |
| | | Year 4 | .08 | .19 | .97 |
| | Year 3 | Year 1 | .11 | .21 | .95 |
| | | Year 2 | .07 | .20 | .99 |
| | | Year 4 | .15 | .16 | .80 |
| | Year 4 | Year 1 | -.04 | .20 | 1.00 |
| | | Year 2 | -.08 | .19 | .97 |
| | | Year 3 | -.15 | .16 | .80 |

Note. *significant at $p < .05$, **significant at $p < .01$,

5. Results of Tukey HSD test: Summary One-way ANOVA for Differences between Ethnicity and Components of General Creativity

| General creativity | (I) Ethnic | (J) Ethnic | Mean | | p |
|---------------------|------------|------------|---------------------|------------|-------|
| | | | Difference (I-J) | Std. Error | |
| Figural Fluency | Malay | Chinese | -1.56 | 2.02 | .72 |
| | | Others | .42 | 3.15 | .99 |
| | Chinese | Malay | 1.56 | 2.02 | .72 |
| | | Others | 1.98 | 3.18 | .81 |
| | Others | Malay | -.42 | 3.15 | .99 |
| | | Chinese | -.98 | 3.18 | .81 |
| | Chinese | Malay | 1.35 | 2.20 | .81 |
| | | Others | 2.34 | 3.43 | .78 |
| | | Malay | -.135 | 2.20 | .81 |
| | | Others | .99 | 3.47 | .96 |
| | | Malay | -2.34 | 3.43 | .78 |
| | | Chinese | -.99 | 3.47 | .96 |
| Figural Originality | Malay | Chinese | 8.390* | 2.62 | .01** |
| | | Others | 4.34 | 4.09 | .54 |
| | Chinese | Malay | -8.390* | 2.62 | .01** |
| | | Others | -4.05 | 4.13 | .59 |
| | Others | Malay | -4.34 | 4.09 | .54 |
| | | Chinese | 4.05 | 4.13 | .59 |
| | Chinese | Chinese | -.57 | 2.80 | .98 |
| | | Others | 4.42 | 4.36 | .57 |
| | | Malay | .57 | 2.80 | .98 |
| | | Others | 4.99 | 4.41 | .50 |
| | | Malay | -4.42 | 4.36 | .57 |
| | | Chinese | -4.99 | 4.41 | .50 |
| Figural Elaboration | Malay | Chinese | 4.84 | 3.59 | .37 |
| | | Others | 4.38 | 5.59 | .71 |
| | Chinese | Malay | -4.84 | 3.59 | .37 |
| | | Others | -.46 | 5.65 | 1.00 |
| | Others | Malay | -4.38 | 5.59 | .71 |
| | | Chinese | .46 | 5.65 | 1.00 |

Note. **significant at $p < .01$,

6. Results of Tukey HSD test: Summary of One-way ANOVA for Differences between Academic years and Components of General Creativity

| General Creativity | <i>(I) Year</i> | <i>(J) Year</i> | <i>Mean</i> | <i>Std. Error</i> | <i>p</i> |
|---|-----------------|-----------------|-----------------------------|-------------------|----------|
| | | | <i>Difference (I-J)</i> | | |
| Figural Fluency | Year 1 | Year 2 | -4.75 | 3.33 | .48 |
| | | Year 3 | -4.84 | 3.05 | .39 |
| | | Year 4 | -4.30 | 2.91 | .45 |
| | Year 2 | Year 1 | 4.75 | 3.33 | .48 |
| | | Year 3 | -.08 | 2.84 | 1.00 |
| | | Year 4 | .45 | 2.68 | .99 |
| | Year 3 | Year 1 | 4.84 | 3.05 | .39 |
| | | Year 2 | .08 | 2.84 | 1.00 |
| | | Year 4 | .53 | 2.33 | .99 |
| | Year 4 | Year 1 | 4.30 | 2.91 | .45 |
| | | Year 2 | -.45 | 2.68 | .99 |
| | | Year 3 | -.53 | 2.33 | .99 |
| Figural Originality | Year 1 | Year 2 | -11.15* | 3.52 | .01** |
| | | Year 3 | -6.12 | 3.23 | .23 |
| | | Year 4 | -3.03 | 3.08 | .75 |
| | Year 2 | Year 1 | 11.15* | 3.52 | .01** |
| | | Year 3 | 5.02 | 3.00 | .34 |
| | | Year 4 | 8.11* | 2.84 | .02* |
| | Year 3 | Year 1 | 6.12 | 3.23 | .23 |
| | | Year 2 | -5.02 | 3.00 | .34 |
| | | Year 4 | 3.08 | 2.47 | .59 |
| | Year 4 | Year 1 | 3.03 | 3.08 | .75 |
| | | Year 2 | -8.11* | 2.84 | .02* |
| | | Year 3 | -3.08 | 2.47 | .59 |
| Figural Elaboration | Year 1 | Year 2 | -3.00 | 4.36 | .90 |
| | | Year 3 | 5.54 | 4.00 | .51 |
| | | Year 4 | 6.78 | 3.81 | .28 |
| | Year 2 | Year 1 | 3.00 | 4.36 | .90 |
| | | Year 3 | 8.54 | 3.72 | .10 |
| | | Year 4 | 9.78* | 3.51 | .03* |
| | Year 3 | Year 1 | -5.54 | 4.00 | .51 |
| | | Year 2 | -8.54 | 3.72 | .10 |
| | | Year 4 | 1.24 | 3.05 | .97 |
| | Year 4 | Year 1 | -6.78 | 3.81 | .28 |
| | | Year 2 | -9.78* | 3.51 | .03* |
| | | Year 3 | -1.24 | 3.05 | .97 |
| Figural Resistance To Premature Closure | Year 1 | Year 2 | -2.73 | 4.64 | .93 |
| | | Year 3 | .96 | 4.26 | .99 |
| | | Year 4 | -2.39 | 4.06 | .93 |
| | Year 2 | Year 1 | 2.73 | 4.64 | .93 |
| | | Year 3 | 3.70 | 3.96 | .78 |
| | | Year 4 | .34 | 3.74 | 1.00 |

Continues

| | | | | | |
|-------------------------------|--------|---------|--------|-------|------|
| | Year 3 | Year 1 | -.96 | 4.26 | .99 |
| | | Year 2 | -3.70 | 3.96 | .78 |
| | | Year 4 | -3.35 | 3.26 | .73 |
| | Year 4 | Year 1 | 2.39 | 4.06 | .93 |
| | | Year 2 | -.34 | 3.74 | 1.00 |
| | | Year 43 | 3.35 | 3.26 | .73 |
| Figural Abstractness of Title | Year 1 | Year 2 | -13.45 | 5.86 | .10 |
| | | Year 3 | -2.66 | 5.38 | .96 |
| | | Year 4 | -7.04 | 5.12 | .51 |
| | Year 2 | Year 1 | 13.45 | 5.86 | .10 |
| | | Year 3 | 10.79 | 5.00 | .14 |
| | | Year 4 | 6.41 | 4.72 | .52 |
| | Year 3 | Year 1 | 2.66 | 5.38 | .96 |
| | | Year 2 | -10.79 | 5.00 | .14 |
| | | Year 4 | -4.37 | 4.11 | .71 |
| | Year 4 | Year 1 | 7.04 | 5.129 | .51 |
| | | Year 2 | -6.41 | 4.72 | .52 |
| | | Year 3 | 4.37 | 4.11 | .71 |

Note. *significant at $p < .05$, **significant at $p < .01$,

7. Results of Tukey HSD test: Summary of One-way ANOVA for Differences between Keyboard Grades and Components of Musical Creativity

| Musical Creativity | (I) Keyboard grades | (J) Keyboard grades | Mean Difference (I-J) | Std. Error | p |
|--------------------|---------------------------|---------------------------|-----------------------------|------------|------|
| Musical Fluency | None | Grade 1-3 | .05 | .65 | 1.00 |
| | | Grade 4-5 | -.31 | .42 | .95 |
| | | Grade 6-7 | -.91 | .39 | .14 |
| | | Grade 8 | -1.00 | .41 | .10 |
| | Grade 1-3 | None | -.05 | .65 | 1.00 |
| | | Grade 4-5 | -.35 | .74 | .99 |
| | | Grade 6-7 | -.96 | .73 | .68 |
| | | Grade 8 | -1.05 | .74 | .61 |
| | Grade 4-5 | None | .31 | .42 | .95 |
| | | Grade 1-3 | .35 | .74 | .99 |
| | | Grade 6-7 | -.60 | .53 | .78 |
| | | Grade 8 | -.70 | .54 | .70 |
| | Grade 6-7 | None | .91 | .39 | .14 |
| | | Grade 1-3 | .96 | .73 | .68 |
| | | Grade 4-5 | .60 | .53 | .78 |
| | | Grade 8 | -.09 | .52 | 1.00 |
| | Grade 8 | None | 1.00 | .41 | .10 |
| | | Grade 1-3 | 1.05 | .74 | .61 |
| | | Grade 4-5 | .70 | .54 | .70 |
| | | Grade 6-7 | .09 | .52 | 1.00 |

Continues

| | | | | | |
|---|-----------|-----------|--------|-----|------|
| Musical Originality | None | Grade 1-3 | .39 | .68 | .98 |
| | | Grade 4-5 | .29 | .43 | .97 |
| | | Grade 6-7 | -.38 | .40 | .88 |
| | | Grade 8 | -.98 | .42 | .14 |
| | Grade 1-3 | None | -.39 | .68 | .98 |
| | | Grade 4-5 | -.10 | .77 | 1.00 |
| | | Grade 6-7 | -.77 | .75 | .84 |
| | | Grade 8 | -1.37 | .76 | .38 |
| | Grade 4-5 | None | -.29 | .43 | .97 |
| | | Grade 1-3 | .10 | .77 | 1.00 |
| | | Grade 6-7 | -.67 | .55 | .74 |
| | | Grade 8 | -1.27 | .56 | .16 |
| | Grade 6-7 | None | .38 | .40 | .88 |
| | | Grade 1-3 | .77 | .75 | .84 |
| | | Grade 4-5 | .67 | .55 | .74 |
| | | Grade 8 | -.60 | .54 | .80 |
| | Grade 8 | None | .98 | .42 | .14 |
| | | Grade 1-3 | 1.37 | .76 | .38 |
| | | Grade 4-5 | 1.27 | .56 | .16 |
| | | Grade 6-7 | .60 | .54 | .80 |
| Musical Elaboration | None | Grade 1-3 | .02 | .72 | 1.00 |
| | | Grade 4-5 | -.07 | .46 | 1.00 |
| | | Grade 6-7 | -.79 | .43 | .35 |
| | | Grade 8 | -1.26* | .45 | .04* |
| | Grade 1-3 | None | -.02 | .72 | 1.00 |
| | | Grade 4-5 | -.08 | .82 | 1.00 |
| | | Grade 6-7 | -.81 | .80 | .85 |
| | | Grade 8 | -1.28 | .81 | .52 |
| | Grade 4-5 | None | .07 | .46 | 1.00 |
| | | Grade 1-3 | .08 | .82 | 1.00 |
| | | Grade 6-7 | -.72 | .58 | .72 |
| | | Grade 8 | -1.19 | .60 | .27 |
| | Grade 6-7 | None | .79 | .43 | .35 |
| | | Grade 1-3 | .81 | .80 | .85 |
| | | Grade 4-5 | .72 | .58 | .72 |
| | | Grade 8 | -.47 | .57 | .92 |
| | Grade 8 | None | 1.26* | .45 | .04* |
| | | Grade 1-3 | 1.28 | .81 | .52 |
| | | Grade 4-5 | 1.19 | .60 | .27 |
| | | Grade 6-7 | .47 | .57 | .92 |
| Musical Resistance To Premature Closure | None | Grade 1-3 | -.34 | .62 | .98 |
| | | Grade 4-5 | -.32 | .40 | .93 |
| | | Grade 6-7 | -.72 | .37 | .30 |
| | | Grade 8 | -1.03 | .39 | .06 |
| | Grade 1-3 | None | .34 | .62 | .98 |
| | | Grade 4-5 | .02 | .71 | 1.00 |
| | | Grade 6-7 | -.38 | .69 | .98 |

Continues

| | | | | | |
|-------------------------------|-----------|-----------|--------|-----|-------|
| | | Grade 8 | -.70 | .70 | .86 |
| Grade 4-5 | None | .32 | .40 | .93 | |
| | Grade 1-3 | -.02 | .71 | | 1.00 |
| | Grade 6-7 | -.40 | .50 | | .93 |
| | Grade 8 | -.72 | .52 | | .63 |
| Grade 6-7 | None | .72 | .37 | | .31 |
| | Grade 1-3 | .38 | .69 | | .98 |
| | Grade 4-5 | .40 | .50 | | .93 |
| | Grade 8 | -.32 | .50 | | .97 |
| Grade 8 | None | 1.03 | .39 | | .06 |
| | Grade 1-3 | .70 | .70 | | .86 |
| | Grade 4-5 | .72 | .52 | | .64 |
| | Grade 6-7 | .32 | .50 | | .97 |
| Musical Abstractness of Title | None | Grade 1-3 | -.52 | .46 | .79 |
| | | Grade 4-5 | -.04 | .30 | 1.00 |
| | | Grade 6-7 | -.15 | .28 | .98 |
| | | Grade 8 | -.12 | .29 | .99 |
| Grade 1-3 | None | .52 | .46 | | .79 |
| | | Grade 4-5 | .48 | .53 | .89 |
| | | Grade 6-7 | .38 | .51 | .95 |
| | | Grade 8 | .40 | .52 | .94 |
| Grade 4-5 | None | .04 | .30 | | 1.00 |
| | | Grade 1-3 | -.48 | .53 | .89 |
| | | Grade 6-7 | -.10 | .37 | 1.00 |
| | | Grade 8 | -.08 | .38 | 1.00 |
| Grade 6-7 | None | .15 | .28 | | .98 |
| | | Grade 1-3 | -.38 | .51 | .95 |
| | | Grade 4-5 | .10 | .37 | 1.00 |
| | | Grade 8 | .03 | .37 | 1.00 |
| Grade 8 | None | .12 | .29 | | .99 |
| | | Grade 1-3 | -.40 | .52 | .94 |
| | | Grade 4-5 | .08 | .38 | 1.00 |
| | | Grade 6-7 | -.03 | .37 | 1.00 |
| Craftsmanship | None | Grade 1-3 | -.71 | .62 | .78 |
| | | Grade 4-5 | -1.21* | .40 | .02* |
| | | Grade 6-7 | -1.05* | .37 | .04* |
| | | Grade 8 | -1.56* | .39 | .00** |
| Grade 1-3 | None | .71 | .62 | | .78 |
| | | Grade 4-5 | -.50 | .71 | .95 |
| | | Grade 6-7 | -.34 | .69 | .99 |
| | | Grade 8 | -.85 | .70 | .74 |
| Grade 4-5 | None | 1.21* | .40 | | .02* |
| | | Grade 1-3 | .50 | .71 | .95 |
| | | Grade 6-7 | .16 | .50 | 1.00 |
| | | Grade 8 | -.35 | .51 | .96 |
| Grade 6-7 | None | 1.05* | .37 | | .04* |
| | | Grade 1-3 | .34 | .69 | .99 |

Continues

| | | | | | |
|---------------------|-----------|-----------|--------|-------|-------|
| | | Grade 4-5 | -.16 | .50 | 1.00 |
| | | Grade 8 | -.51 | .49 | .84 |
| Grade 8 | None | 1.56* | .39 | .00** | |
| | Grade 1-3 | .85 | .70 | .74 | |
| | Grade 4-5 | .35 | .51 | .96 | |
| | Grade 6-7 | .51 | .49 | .84 | |
| | | | | | |
| Musical Syntax | None | Grade 1-3 | -.72 | .64 | .80 |
| | | Grade 4-5 | -.91 | .41 | .19 |
| | | Grade 6-7 | -.85 | .38 | .18 |
| | | Grade 8 | -1.45* | .40 | .00** |
| | | | | | |
| Grade 1-3 | None | .72 | .64 | .80 | |
| | | Grade 4-5 | -.19 | .73 | 1.0 |
| | | Grade 6-7 | -.13 | .72 | 1.00 |
| | | Grade 8 | -.74 | .73 | .85 |
| | | | | | |
| Grade 4-5 | None | .91 | .41 | .19 | |
| | | Grade 1-3 | .19 | .73 | 1.00 |
| | | Grade 6-7 | .06 | .52 | 1.00 |
| | | Grade 8 | -.55 | .53 | .84 |
| | | | | | |
| Grade 6-7 | None | .85 | .38 | .18 | |
| | | Grade 1-3 | .13 | .72 | 1.00 |
| | | Grade 4-5 | -.06 | .52 | 1.00 |
| | | Grade 8 | -.60 | .51 | .76 |
| | | | | | |
| Grade 8 | None | 1.45* | .40 | .00** | |
| | | Grade 1-3 | .74 | .72 | .85 |
| | | Grade 4-5 | .55 | .53 | .84 |
| | | Grade 6-7 | .61 | .51 | .76 |
| | | | | | |
| Musical Sensitivity | None | Grade 1-3 | -.60 | .68 | .90 |
| | | Grade 4-5 | -.35 | .44 | .93 |
| | | Grade 6-7 | -1.18* | .40 | .03* |
| | | Grade 8 | -1.55* | .42 | .00** |
| | | | | | |
| Grade 1-3 | None | .60 | .68 | .90 | |
| | | Grade 4-5 | .25 | .77 | 1.00 |
| | | Grade 6-7 | -.58 | .76 | .94 |
| | | Grade 8 | -.94 | .77 | .74 |
| | | | | | |
| Grade 4-5 | None | .35 | .44 | .93 | |
| | | Grade 1-3 | -.25 | .77 | 1.00 |
| | | Grade 6-7 | -.83 | .55 | .56 |
| | | Grade 8 | -1.19 | .56 | .22 |
| | | | | | |
| Grade 6-7 | None | 1.18* | .40 | .03* | |
| | | Grade 1-3 | .58 | .76 | .94 |
| | | Grade 4-5 | .83 | .55 | .56 |
| | | Grade 8 | -.36 | .54 | .96 |
| | | | | | |
| Grade 8 | None | 1.55* | .42 | .00** | |
| | | Grade 1-3 | .94 | .77 | .74 |
| | | Grade 4-5 | 1.19 | .56 | .22 |
| | | Grade 6-7 | .36 | .54 | .96 |
| | | | | | |

Continues

| | | | | | |
|--------------------|-----------|-----------|------|-----|------|
| Repetition of Song | None | Grade 1-3 | -.06 | .35 | 1.00 |
| | | Grade 4-5 | .07 | .22 | 1.00 |
| | | Grade 6-7 | -.27 | .21 | .69 |
| | | Grade 8 | -.12 | .22 | .98 |
| | Grade 1-3 | None | .06 | .35 | 1.00 |
| | | Grade 4-5 | .13 | .40 | 1.00 |
| | | Grade 6-7 | -.21 | .39 | .98 |
| | | Grade 8 | -.06 | .39 | 1.00 |
| | Grade 4-5 | None | -.07 | .22 | 1.00 |
| | | Grade 1-3 | -.13 | .40 | 1.00 |
| | | Grade 6-7 | -.34 | .28 | .75 |
| | Grade 6-7 | Grade 8 | -.18 | .29 | .97 |
| | | None | .27 | .21 | .69 |
| | | Grade 1-3 | .21 | .39 | .98 |
| | | Grade 4-5 | .34 | .28 | .75 |
| | Grade 8 | Grade 8 | .15 | .28 | .98 |
| | | None | .12 | .22 | .98 |
| | | Grade 1-3 | .06 | .39 | 1.00 |
| | Grade 4-5 | Grade 4-5 | .18 | .29 | .97 |
| | | Grade 6-7 | -.15 | .28 | .98 |

Note. *significant at $p < .05$, **significant at $p < .01$,

8. Results of Tukey HSD test: Summary of One-way ANOVA for Differences between Keyboard Grades and Components of General Creativity

| General Creativity | | (I) Keyboard grades | (J) Keyboard grades | Mean Difference (I-J) | Std. Error | p |
|--------------------|-----------|---------------------------|---------------------------|-----------------------------|------------|---|
| Figural Fluency | None | Grade 1-3 | .45 | 5.01 | 1.00 | |
| | | Grade 4-5 | 4.28 | 3.20 | .67 | |
| | | Grade 6-7 | -.63 | 2.98 | .98 | |
| | | Grade 8 | -3.63 | 3.12 | .77 | |
| | Grade 1-3 | None | -.44 | 5.01 | 1.00 | |
| | | Grade 4-5 | 3.83 | 5.70 | .96 | |
| | | Grade 6-7 | -2.08 | 5.58 | .99 | |
| | | Grade 8 | -4.07 | 5.66 | .95 | |
| | Grade 4-5 | None | -4.28 | 3.20 | .67 | |
| | | Grade 1-3 | -3.83 | 5.70 | .96 | |
| | | Grade 6-7 | -5.92 | 4.04 | .58 | |
| | | Grade 8 | -7.91 | 4.15 | .31 | |
| | Grade 6-7 | None | 1.63 | 2.98 | .98 | |
| | | Grade 1-3 | 2.08 | 5.58 | .99 | |
| | | Grade 4-5 | 5.92 | 4.04 | .58 | |
| | | Grade 8 | -1.99 | 3.98 | .98 | |

Continues

| | | | | | |
|---|-----------|-----------|---------|------|-------|
| | Grade 8 | None | 3.63 | 3.12 | .77 |
| | | Grade 1-3 | 4.07 | 5.66 | .95 |
| | | Grade 4-5 | 7.91 | 4.15 | .31 |
| | | Grade 6-7 | 1.99 | 3.98 | .98 |
| Figural Originality | None | Grade 1-3 | -.81 | 5.46 | 1.00 |
| | | Grade 4-5 | 4.48 | 3.50 | .70 |
| | | Grade 6-7 | -3.43 | 3.25 | .82 |
| | | Grade 8 | -1.99 | 3.41 | .97 |
| | Grade 1-3 | None | .81 | 5.46 | 1.00 |
| | | Grade 4-5 | 5.29 | 6.23 | .91 |
| | | Grade 6-7 | -2.62 | 6.09 | .99 |
| | | Grade 8 | -1.18 | 6.18 | 1.00 |
| | Grade 4-5 | None | -4.48 | 3.50 | .70 |
| | | Grade 1-3 | -5.29 | 6.23 | .91 |
| | | Grade 6-7 | -7.91 | 4.41 | .38 |
| | | Grade 8 | -6.47 | 4.53 | .61 |
| | Grade 6-7 | None | 3.43 | 3.25 | .82 |
| | | Grade 1-3 | 2.62 | 6.09 | .99 |
| | | Grade 4-5 | 7.91 | 4.41 | .38 |
| | | Grade 8 | 1.43 | 4.34 | .99 |
| | Grade 8 | None | 1.99 | 3.41 | .97 |
| | | Grade 1-3 | 1.18 | 6.18 | 1.00 |
| | | Grade 4-5 | 6.47 | 4.53 | .61 |
| | | Grade 6-7 | -1.43 | 4.34 | .99 |
| Figural Elaboration | None | Grade 1-3 | 22.39* | 6.39 | .00** |
| | | Grade 4-5 | 3.47 | 4.09 | .91 |
| | | Grade 6-7 | 3.67 | 3.80 | .87 |
| | | Grade 8 | 11.95* | 3.98 | .02* |
| | Grade 1-3 | None | -22.39* | 6.39 | .00** |
| | | Grade 4-5 | -18.91 | 7.28 | .07 |
| | | Grade 6-7 | -18.71 | 7.12 | .07 |
| | | Grade 8 | -10.43 | 7.22 | .60 |
| | Grade 4-5 | None | -3.47 | 4.09 | .91 |
| | | Grade 1-3 | 18.91 | 7.28 | .07 |
| | | Grade 6-7 | .19 | 5.16 | 1.00 |
| | | Grade 8 | 8.48 | 5.29 | .49 |
| | Grade 6-7 | None | -3.67 | 3.80 | .87 |
| | | Grade 1-3 | 18.71 | 7.12 | .07 |
| | | Grade 4-5 | -.19 | 5.16 | 1.00 |
| | | Grade 8 | 8.28 | 5.07 | .47 |
| | Grade 8 | None | -11.95* | 3.98 | .02* |
| | | Grade 1-3 | 10.43 | 7.22 | .60 |
| | | Grade 4-5 | -8.48 | 5.29 | .49 |
| | | Grade 6-7 | -8.28 | 5.07 | .47 |
| Figural Resistance To Premature Closure | None | Grade 1-3 | 6.20 | 6.93 | .89 |
| | | Grade 4-5 | .08 | 4.43 | 1.00 |
| | | Grade 6-7 | 6.41 | 4.12 | .52 |

Continues

| | | | | | |
|-------------------------------------|-----------|-----------|-------|-------|------|
| | | Grade 8 | -5.32 | 4.32 | .73 |
| Grade 1-3 | None | -6.20 | 6.93 | .89 | |
| | Grade 4-5 | -6.12 | 7.89 | .93 | |
| | Grade 6-7 | .21 | 7.72 | 1.00 | |
| | Grade 8 | -11.52 | 7.83 | .58 | |
| Grade 4-5 | None | -.08 | 4.43 | 1.00 | |
| | Grade 1-3 | 6.12 | 7.89 | .93 | |
| | Grade 6-7 | 6.33 | 5.59 | .78 | |
| | Grade 8 | -5.40 | 5.74 | .88 | |
| Grade 6-7 | None | -6.41 | 4.12 | .52 | |
| | Grade 1-3 | -.21 | 7.72 | 1.00 | |
| | Grade 4-5 | -6.33 | 5.59 | .78 | |
| | Grade 8 | -11.74 | 5.50 | .21 | |
| Grade 8 | None | 5.32 | 4.32 | .73 | |
| | Grade 1-3 | 11.52 | 7.83 | .58 | |
| | Grade 4-5 | 5.40 | 5.74 | .88 | |
| | Grade 6-7 | 11.74 | 5.50 | .21 | |
| Figural Abstractness of Title | None | Grade 1-3 | 6.12 | 8.95 | .96 |
| | | Grade 4-5 | 4.66 | 5.73 | .92 |
| | | Grade 6-7 | 3.52 | 5.33 | .96 |
| | | Grade 8 | 8.73 | 5.58 | .52 |
| Grade 1-3 | None | -6.12 | 8.95 | .96 | |
| | | Grade 4-5 | -1.45 | 10.20 | 1.00 |
| | | Grade 6-7 | -2.59 | 9.98 | .99 |
| | | Grade 8 | 2.60 | 10.12 | .99 |
| Grade 4-5 | None | -4.66 | 5.73 | .92 | |
| | | Grade 1-3 | 1.45 | 10.20 | 1.00 |
| | | Grade 6-7 | -1.13 | 7.23 | 1.00 |
| | | Grade 8 | 4.06 | 7.42 | .98 |
| Grade 6-7 | None | -3.52 | 5.33 | .96 | |
| | | Grade 1-3 | 2.59 | 9.98 | .99 |
| | | Grade 4-5 | 1.13 | 7.23 | 1.00 |
| | | Grade 8 | 5.20 | 7.11 | .94 |
| Grade 8 | None | -8.73 | 5.58 | .52 | |
| | | Grade 1-3 | -2.60 | 10.12 | .99 |
| | | Grade 4-5 | -4.06 | 7.42 | .98 |
| | | Grade 6-7 | -5.20 | 7.11 | .94 |

Note. *significant at $p < .05$, **significant at $p < .01$,

**Approval to Conduct Research from Education Planning and Research Division
and Teacher Education Institution Malaysia**



BAHAGIAN PERANCANGAN DAN PENYELIDIKAN DASAR PENDIDIKAN
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Selangor

Tuan/Puan,

Kelulusan Untuk Menjalankan Kajian Di Sekolah, Institut Perguruan, Jabatan Pelajaran Negeri dan Bahagian-Bahagian di Bawah Kementerian Pelajaran Malaysia

Adalah saya dengan hormatnya diarah memaklumkan bahawa permohonan tuan/puan untuk menjalankan kajian bertajuk:

General Creativity And Musical Creativity In Composition Of Music Major Trainee Teachers

diluluskan.

2. Kelulusan ini adalah berdasarkan kepada cadangan penyelidikan dan instrumen kajian yang tuan/puan kemukakan ke Bahagian ini. Kebenaran bagi menggunakan sampel kajian perlu diperoleh dari Ketua Bahagian / Pengarah Pelajaran Negeri yang berkenaan.

3. Sila tuan/puan kemukakan ke Bahagian ini senaskah laporan akhir kajian setelah selesai kelak. Tuan/Puan juga diingatkan supaya mendapat kebenaran terlebih dahulu daripada Bahagian ini sekiranya sebahagian atau sepenuhnya dapatkan kajian tersebut hendak dibentangkan di mana-mana forum atau seminar atau diumumkan kepada media sekian untuk makluman dan tindakan tuan/puan selanjutnya. Terima kasih.

"BERKHIDMAT UNTUK NEGARA"

Saya yang menurut perintah,

(DR. SOON SENG THAH)

Ketua Sektor,
Sektor Penyelidikan dan Penilaian
b.p. Pengarah
Bahagian Perancangan dan Penyelidikan
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Tarikh : 4 Mac 2011

KS (Luu)

Pisanganikam.

8/3/11

SHAARI BIN OSMAN
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63000 Kuala Lumpur

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Jabatan Pendidikan Muzik
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Puan,

Kelulusan Untuk Menjalankan Kajian di Institut Pendidikan Guru Kampus (IPGK)

Dengan hormatnya perkara di atas adalah dirujuk.

2. Dimaklumkan bahawa pihak Institut Pendidikan Guru Malaysia, Kementerian Pelajaran Malaysia memberi kelulusan kepada Puan untuk melaksanakan kajian bertajuk, "**General Creativity and Musical Creativity in Composition of Music Major Trainee Teachers**" di IPGK yang berkenaan.
3. Kelulusan ini adalah tertakluk kepada cadangan penyelidikan dan instrumen yang telah diluluskan oleh Bahagian Perancangan dan Penyelidikan Dasar Pendidikan, Kementerian Pelajaran Malaysia.
4. Puan dikehendaki mengemukakan senaskah laporan akhir kajian ke IPGM, KPM bagi tujuan rekod.

Sekian, terima kasih.

"BERKHIDMAT UNTUK NEGARA"

Saya yang menurut perintah,

(Dr. LEE BOON HUA)
b.p. Rektor
Institut Pendidikan Guru
Kementerian Pelajaran Malaysia

