Bird Song System
Standard Student Pre-/Post-Test

1. I am a UCLA student?

a. Yes
b. No

UCLA Student ID Number
--OR--
Non-UCLA Student Institution Name: _____

2. Email Address: _____

(This will be used for tracking purposes and possibly to send you a reminder to do the Post-Test only. We will keep your email address confidential, and we will not share it with anyone.)

3. Academic year:

a. Freshman
b. Sophmore
c. Junior
d. Senior
e. Other

4. Department/major in which the course was offered:

a. Psychology department/major
b. Biology department/major
c. Neuroscience department/major
d. Other

5. Department/major to which I belong: _____

6. Grade expected to receive in the course:

a. A
b. B
c. C
d. D
e. F

7. Gender

a. M
b. F

8. I would characterize myself as:

a. Asian
b. Black
c. Latino(a)
d. Native American
e. White
f. Other

9. Which of the following has the most powerful influence in masculinizing the brain in development in mammals and birdsong system?

a. testosterone
b. estrogen
c. progesterone
d. corticosterone
e. GNRH

10. The organizational hypothesis of sexual differentiation holds that:

a. genes alone determine sexual differentiation.
b. pituitary hormones determine sexual differentiation.
c. testosterone causes masculinization and estrogen causes feminization in early development.
d. gonadal hormones impact males but not females in early development.
e. unlike some other tissues, the brain is not different between the sexes until puberty.

11. Which of the following are characteristic of the activational effects of steroid hormones?

a. They happen early in life.
b. They happen during a critical/sensitive period only.
c. They are irreversible.
d. *b* and *c* only
e. none of the above

12. Steroid receptors are believed to be:

a. membrane-bound lipids.
b. membrane-bound proteins.
c. found in the cytoplasm.
d. proteolipids on the cell membrane.
e. none of the above

13. Which of the following is/are true?

a. Testosterone may be converted into estrogen.
b. Estrogen may be converted into testosterones
c. Both *a* and *b*, because the reaction is reversible.
d. Testosterone and estrogen are synthesized through completely independent pathways.
e. Because the sexes have different gonads, steroid hormones are never converted one to another but this reaction can occur in a test-tube under proper enzymatic conditions.

14. An experiment had one group of control males, one group of control females, one group of females treated with 5 μg of hormone, one group of females treated with 15 μg of hormone, one group of females treated with 50 μg of hormone. This design can best be characterized as a:

a. 2 between, 3 within design.
b. 5 factor within subjects design.
c. 5 factor between subjects design.
d. 1 factor between subjects design with 5 levels.
e. 1 factor within subjects design.

15. Suppose that our hormone treatment partially sex-reversed our dependent measures. We could conclude which of the following?

a. Hormones may not be the only factor in sexual differentiation.
b. The dose was fully adequate.
c. The timing of treatment was completely appropriate.
d. all the above
e. none of the above

16. Suppose that we compared the following groups (one group of control males, one group of control females, one group of females treated with 5 μg of hormone, one group of females treated with 15 μg of hormone, one group of females treated with 50 μg of hormone) and we found a significant overall F ratio. We could necessarily conclude:

a. there was a significant difference due to sex.
b. there was a significant difference due to treatment.
c. there is a significant sex X treatment interaction.
d. all of the above
e. none of the above

17. Suppose that we found that the students were making the brain measurements in a slightly different ways from each other. This would result in:

a. a possibly confounded experiment.
b. large variance in the data.
c. an increase in the means of the dependent measures.
d. all of the above
e. both *a* and *b*

18. Dr. Birdlove believes that students will make brain measurements in a slightly different ways from each other. She believes that this fact will potentially be confounding. Which of the following statements is true?

a. Dr. Birdlove is correct—she should make sure that the students were blind to the sex and treatment of the birds to avoid these differences in drawing from confounding the study.
b. Dr. Birdlove is correct—she should make sure that each student measured brains from each of the different groups to avoid these differences in drawing from confounding the study.
c. Dr. Birdlove is correct—she should make sure that each student measured brains from only a single group to avoid these differences in drawing from confounding the study.
d. both *a* and *c*
e. Dr. Birdlove is incorrect—there is no potential for confounding BUT the variance in the data will be large.

19. A bat and a ball together cost $1.10. The bat costs $1.00 more than the ball. What does the ball cost?

a. $0.05
b. $0.10
c. $0.20
d. $1.00
e. cannot be determined

20. Imagine that XYZ syndrome is a serious disease that affects one in 1000 people. Suppose that there is a test for the disease that always accurately identifies those afflicted with the disease. The test, however, also has a false positive rate of 5 %, meaning that the test wrongly indicates that the XYZ virus is present in 5 % of the cases when the person does not have the virus. If a person chosen from the population at random tests positive for the XYZ virus, and nothing is known about their medical history, what is the probability that they may actually have the virus?

a. 0 %
b. 0.1 %
c. 2 %
d. 5 %
e. 95 %

21. An experiment is conducted to identify the efficacy of a new medical treatment. Picture a 2x2 matrix that gives the following results:

	Improvement	No Improvement
Treatment Given	200	75
No Treatment Given	50	15

Which of the following conclusions are valid?

a. The treatment is obviously effective.
b. The treatment is obviously ineffective.
c. Since the treatment may not have been given blind, efficacy cannot be determined.
d. Since a cross-over design was not employed, efficacy cannot be determined.
e. Efficacy cannot be determined.

22. Imagine four cards that look like those below:

A	**K**	**8**	**5**

Each card has a letter on one side and a number on the other. Two of the cards are letter-side up, and the other two cards are number-side up. Test this rule: if a card has a vowel on its letter side, then it has an even number on its number side. Which card(s) need to be turned over to determine the rule true or false?

a. The ‘A’ card only.
b. The ‘A’ and ‘8’ cards.
c. The ‘A’ and ‘5’ cards.
d. The ‘K’ and ‘8’ cards.
e. All of the cards need to be turned over.

23. If taking the Pre-Test, write the word **PRE**

--OR--

If taking the Post-Test, write the number of weeks it has been since completing the Bird Song module:

_____

Bird Song System
Student Materials Evaluation

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UCLA Student ID Number
--OR--
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b. F

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b. Black
c. Latino(a)
d. Native American
e. White
f. Other

(9) The tutorials explaining procedures were well organized and clear.

(a)	**(b)**	**(c)**	**(d)**	**(e)**
strongly agree	**agree**	**neither**	**disagree**	**strongly disagree**

(10) The topics presented in the Bird Song System module were easy to understand.

(a)	**(b)**	**(c)**	**(d)**	**(e)**
strongly agree	**agree**	**neither**	**disagree**	**strongly disagree**

(11) I learned a lot about sexual differentiation of the brain through the Bird Song System module.

(a)	**(b)**	**(c)**	**(d)**	**(e)**
strongly agree	**agree**	**neither**	**disagree**	**strongly disagree**

(12) I learned a lot about analyzing data through the Bird Song System module.

(a)	**(b)**	**(c)**	**(d)**	**(e)**
strongly agree	**agree**	**neither**	**disagree**	**strongly disagree**

(13) The instructions for writing the lab report were clear and well presented.

(a)	**(b)**	**(c)**	**(d)**	**(e)**
strongly agree	**agree**	**neither**	**disagree**	**strongly disagree**

(14) I liked the fact that the experiments yielded significant data.

(a)	**(b)**	**(c)**	**(d)**	**(e)**
strongly agree	**agree**	**neither**	**disagree**	**strongly disagree**

15) I liked the fact that we were extending and replicating a published experiment.

(a)	**(b)**	**(c)**	**(d)**	**(e)**
strongly agree	**agree**	**neither**	**disagree**	**strongly disagree**

(16) The quality of the digitized images was good.

(a)	**(b)**	**(c)**	**(d)**	**(e)**
strongly agree	**agree**	**neither**	**disagree**	**strongly disagree**

(17) I felt like I learned as much using the digitized images as I would have using tissue on slides.

(a)	**(b)**	**(c)**	**(d)**	**(e)**
strongly agree	**agree**	**neither**	**disagree**	**strongly disagree**

(18) Working with the digitized images was enjoyable.

(a)	**(b)**	**(c)**	**(d)**	**(e)**
strongly agree	**agree**	**neither**	**disagree**	**strongly disagree**

(19) Working with the digitized images was easy.

(a)	**(b)**	**(c)**	**(d)**	**(e)**
strongly agree	**agree**	**neither**	**disagree**	**strongly disagree**

(20) I appreciated being able to jump right in and collect data.

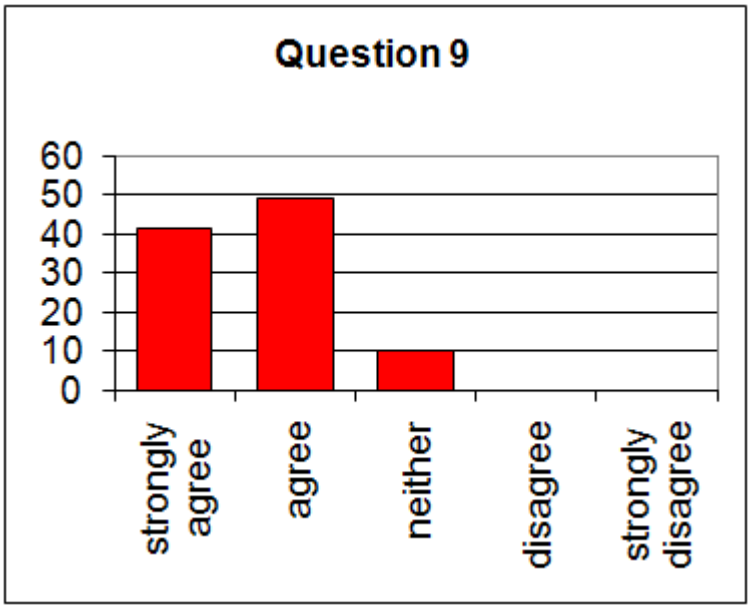
(a)	**(b)**	**(c)**	**(d)**	**(e)**
strongly agree	**agree**	**neither**	**disagree**	**strongly disagree**

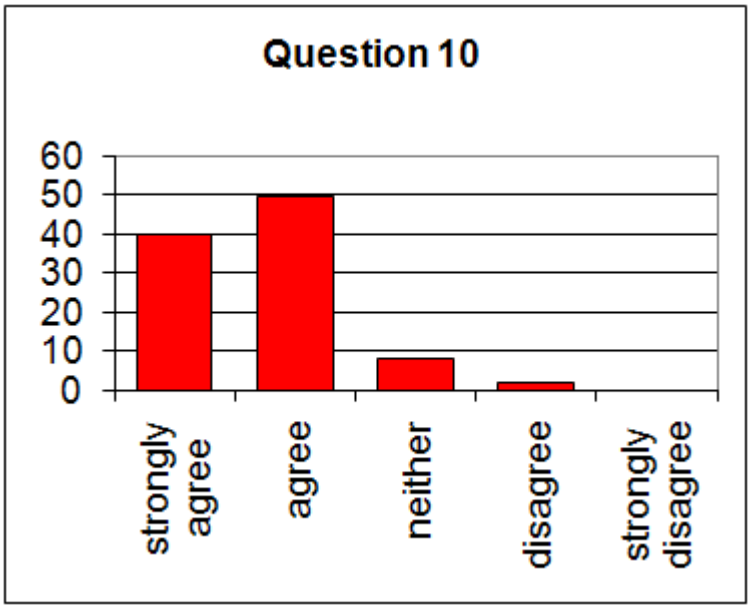
(21) Please describe the purpose of using the Bird Song System module from a learning standpoint in the space provided below.

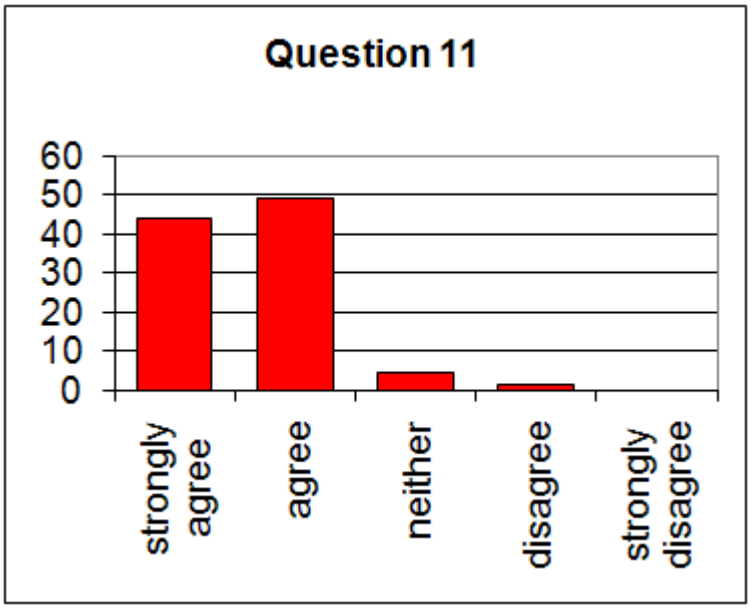
Bird Song System
Student Materials Evaluation

Data for:

- Neuroscience 101L, Winter 2010
- Psychology 116, Spring 2010






Question 11
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50
40
30
20
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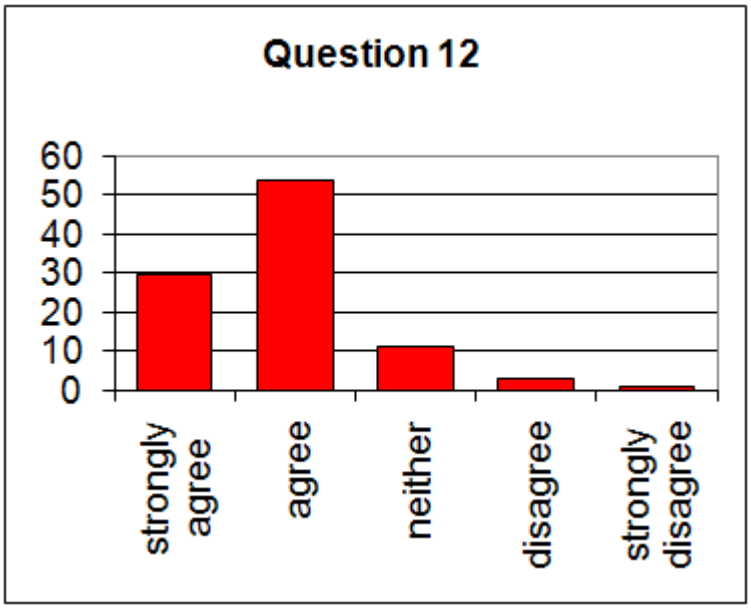
strongly agree
agree
neither
disagree
strongly disagree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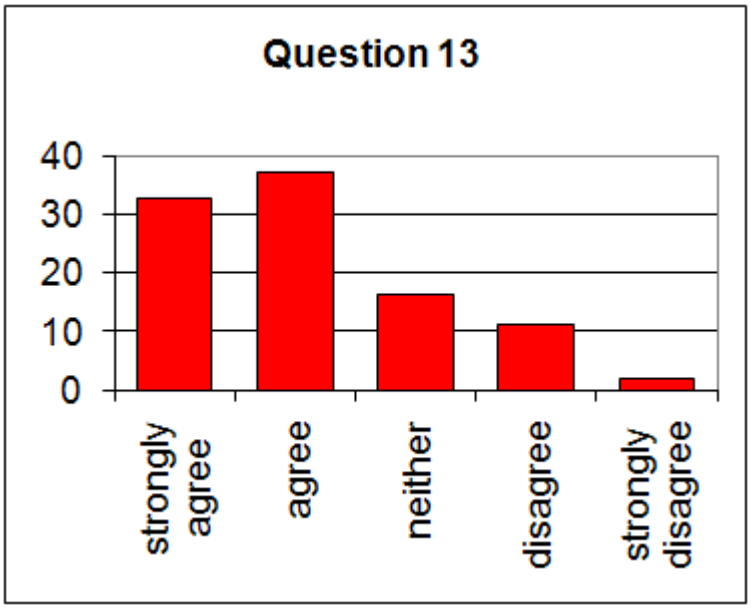
disagree
strongly disagree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strongly agree
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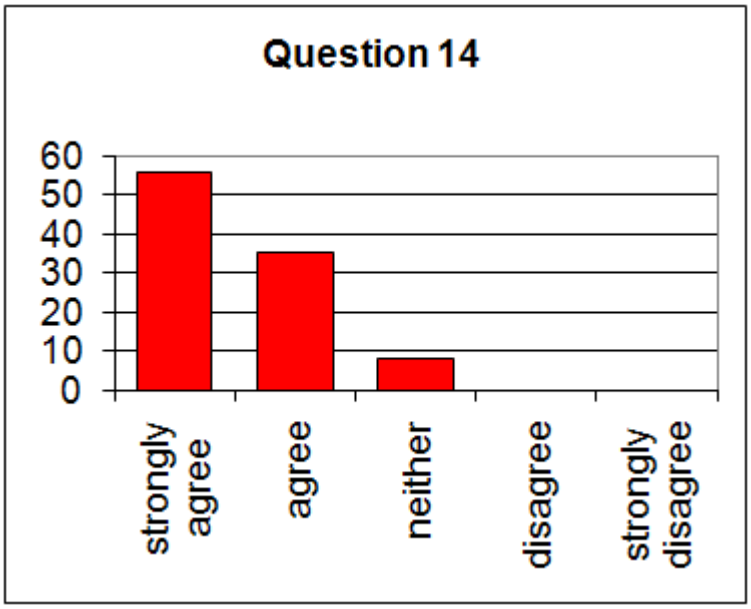
disagree
strongly disagree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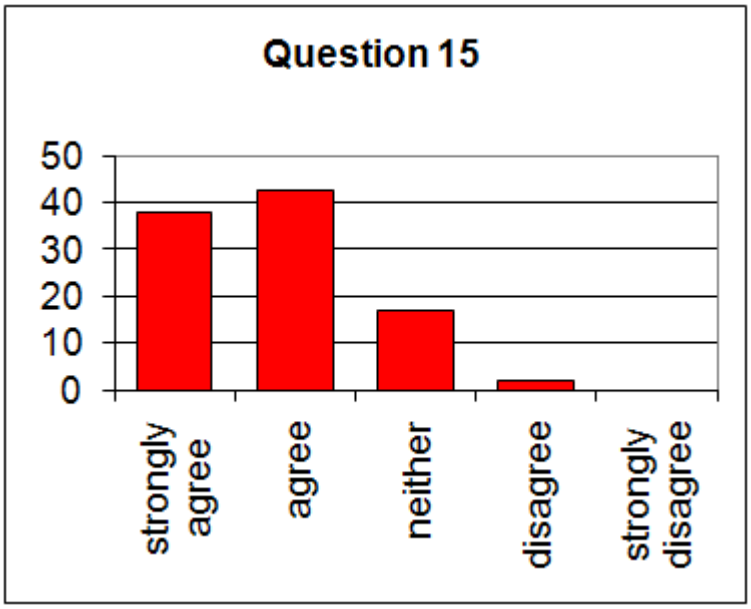
disagree
strongly disagree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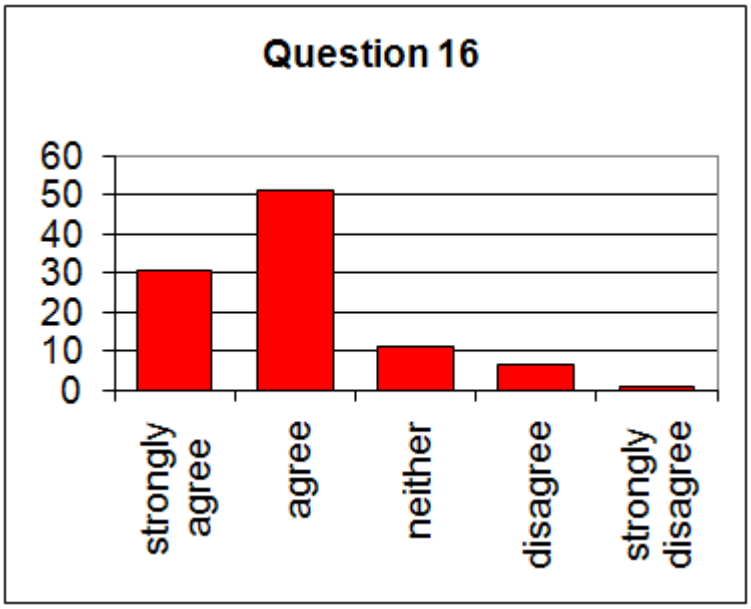
strongly agree
agree
neither
disagree
strongly disagree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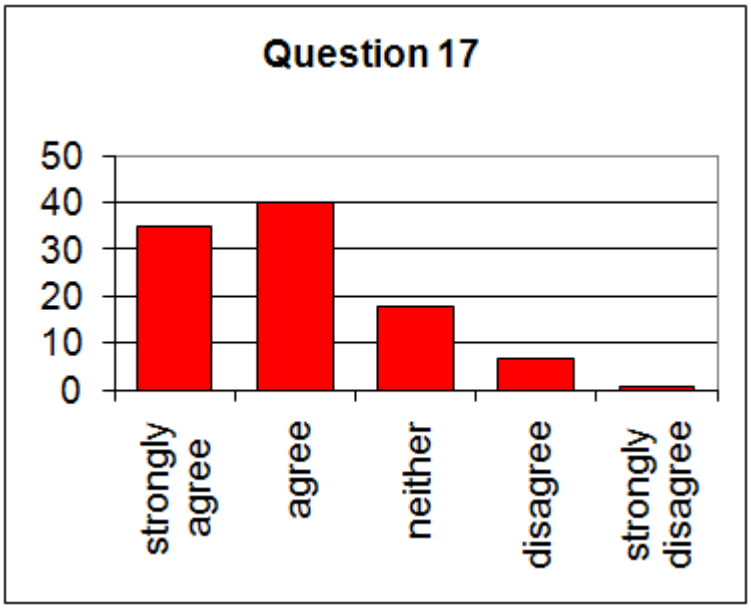
strongly agree
agree
neither
disagree
strongly disagree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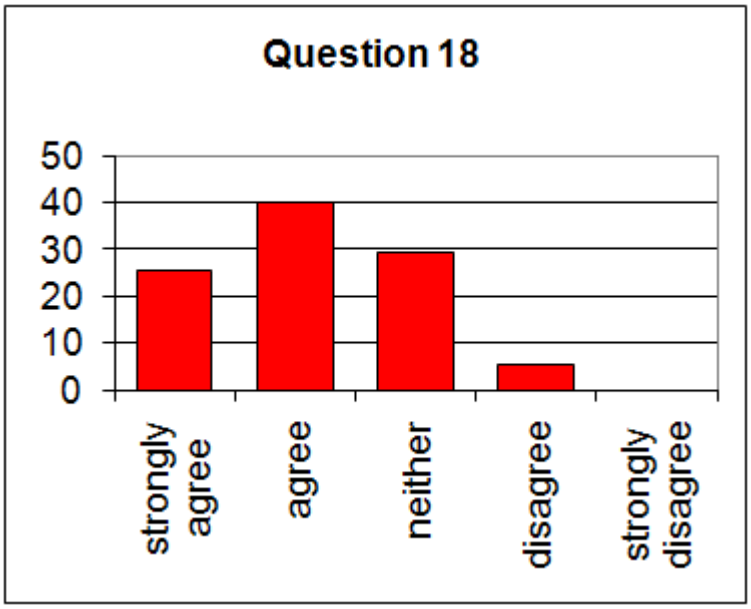
strongly agree
agree
neither
disagree
strongly disagree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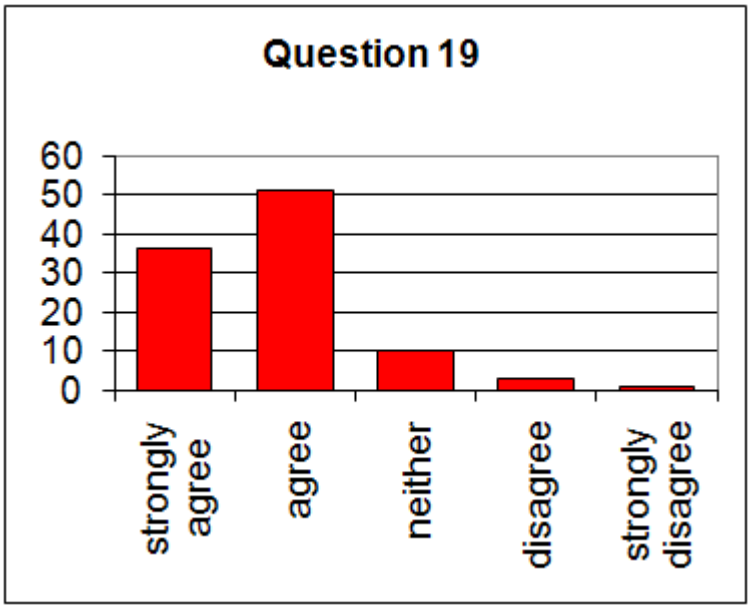
strongly agree
agree
neither
disagree
strongly disagree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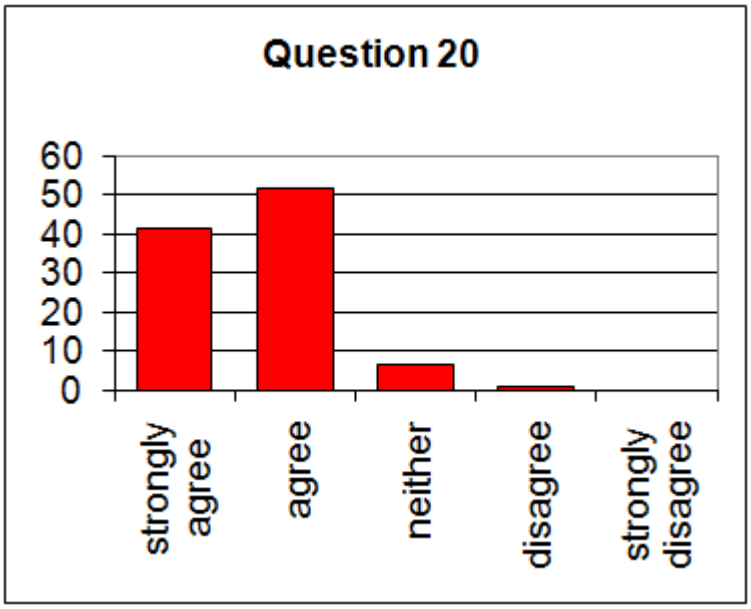
strongly agree
agree
neither
disagree
strongly disagree


Question 20
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10
0
strongly agree
agree
neither
disagree
strongly disagree