Appendix D

Teachers' Questionnaire Form

(Teaching and Learning Genetics Questionnaire for Genetic Teachers in High School Level)

Teaching and Learning Genetics Questionnaire for Genetic Teachers in High School Level

Part 1: Teacher's Information

1. Gender _____
2. Age_____
3. Graduation _____
4. Major _____
5. Teaching experiences _____year
6. Biology teaching experiences _____ year
7. Biology teaching experiences in welfare schools_____ year
8. Professional development training in recent 2 years (Please identify the topics as you can)

Training	Topics
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

9. What is/ are the subject(s) that you taught including the level and timing?

Subjects	Level	Timing (Year)
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

10. What is/ are the subject(s) that you are teaching in this semester including the level and period(s)?

Subjects	Level	Period(s)
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

11. Do you have any responsibility out of teaching in the class? If you have some, what is/are the kind of responsibility?

_____
_____
_____
_____

☺_____☺

Part 2: Teaching and Learning Genetics Information

1. From genetic concepts in the table, which one are most difficult, difficult, moderate difficult, or easy for teaching genetics. Please identify the level of difficulty in the box which matches with your opinion.

Genetic concepts	Level of Difficulty			
	MD*	D*	M*	E*
1. Genetic Traits				
2. Dominant and Recessive				
3. Homozygous and Heterozygous				
4. Genotype and Phenotype				
5. Law of Segregation and Law of Independent Assortment				
6. Alleles				
7. Multiple Genes or Polygenes				
8. Chromosome				
9. Relationship between Gene and Chromosome				
10. Chemical Structure of DNA				
11. DNA Properties and DNA Synthesis				
12. DNA and RNA in Protein Synthesis				
13. Genetic Codes				
14. DNA in Prokaryote and Eukaryote				
15. Mutation				
16. Genetic Engineering and Applications				

* MD =Most difficult, D =Difficult, M =Moderate, E =Easy

2. From genetic concepts in table of item 1., please give examples of the most difficult of genetic concepts in teaching and learning (Number 1 means the most difficult)

    1. _____
    _____
    _____
    2. _____
    _____
    _____
    3. _____
    _____
    _____

3. From the examples of teaching and learning strategies, please give the two examples which you implemented in succeed teaching genetics with instructional materials, and assessment in the next page

a. Teacher demonstration	j. Students study from information sheets and worksheets
b. Students do report	k. Role play
c. Teacher explanation	l. Field trip
d. Students do project	m. Teacher and student discussion
e. Teacher ask questions to let student think	n. Debate
f. Teacher and students use CAI	o. Problem-based learning
g. Student presentation	p. Expert explanation
h. Students do experiment	q. Group work
i. Teacher set equipments and some students demonstrate	r. Others (Identify): _____

Example 1

Genetic concept:

_____

_____

_____

Instructional material(s):

_____

_____

_____

Teaching and Learning Strategies:

_____

_____

_____

_____

_____

_____

_____

_____

Assessment:

_____

_____

_____

Example 2

Genetic concept:

Instructional material(s):

Teaching and Learning Strategies:

Assessment:

4. Please give two examples of problems and solving problems in teaching genetics.

Problem 1:

_____

_____

_____

_____

Solving Problem:

_____

_____

_____

_____

Problem 2:

_____

_____

_____

_____

Solving Problem:

_____

_____

_____

_____

5. In case of having teacher training for teaching and learning genetics, which one(s) that you want to attend. Please tick (✔) in front of the topic(s). You can choose more than one topic.

□ Contents of genetics

□ Teaching and learning theories

□ Teaching strategies

□ Instructional materials in genetics

□ Others (Identify) _____

6. What is your suggestion about teaching and learning genetics in high school level?

_____

_____

_____

_____

_____

_____

_____

☺ Thank You ☺