Beliefs on teaching SSI questionnaire (IO8)

ENSITE project

* Required

1. Age *

2. Country *

3. Gender *

Mark only one oval.

Female			
Male			
Prefer ne	ot to say		
Other:			

4. Specialisation in teacher education *

Check all that apply.

 Mathematics

 Physics

 Chemistry

 Biology

 Geology

Other:

5. Which age group will you teach when you graduate? *

Check all that apply.

4-5		
6-12		
12-14		
15-18		
Other:	 	

6. What are socioscientific issues? Please provide a definition. *

7. To what extend have you been taught the following during your studies to become a teacher? *

Not at all	To some extend	Yes	In detail	specialised
	Not at all	Not at all To some extend Image: Constraint of the second of t	Not at all To some extend Yes Image: Constraint of the strength of the strenge strength of the strengt of the strength of the str	Not at all To some extend Yes In detail Image:

8. The doctor informed you that you need to undergo surgery. When thinking about your decision, how much do the following affect you? *

Check all that apply.

	Not at all	To some extend	They affect me	A lot	Most important in my decision
Scientific evidence					
Other people's opinion					
Information from the internet					
The opinion of the expert/doctor					
Ethical issues					
Religious issues					
financial issue					

9. Do you trust information from the social media?

Mark only one oval.

Yes, very much

To some extend

🔵 Not at all

📄 l do not know

10. Do you trust scientific research?

Mark only one oval.

Yes, very much

To some extend

📃 Not at all

🕖 I do not know

11. Please explain your response if you wish.

Beliefs on socioscientific issues	Socioscientific issues are controversial issues for science and/or society. They are usually on the frontier of science and require the use of evidence from science as well as other discipline (i.e. financial or societal implications). They also require judgement and decision making and ϵ degree of ethical evaluation. An example of socioscientific issue could be "Is it better to build nuclear power plants?". The controversy can be on the dangers related to nuclear energy but the discussion can also focus on the positives on the environment from the low emissions.

12. Now that you have read a definition of socioscientific issues, which of the following topic: would you consider as socioscientific? *

	socioscientific	not socioscientific	not sure
Global warming			
vaccines			
use of antibiotics to treat infections			
engineering babies (changing the DNA)			
genetically modified fruits and vegetables			
abortion of medical reasons			
building wind plants			
electric cars			
herd immunity in covid-19			

13. How important are the following for you when trying to make a decision? *

	Not important	some what important	Important	Very important	Most importar
Scientific evidence					
Personal opinion					
Personal experience					
Data from experiments related to the issue					
The financial aspects of the problem					
The moral/ ethical aspect of the problem					
Information from social media					
The religious aspect of the problem					
An understanding of the science behind the issue					
Trust in scientific work					

14. Consider the following socioscientific issue: As life expectancy of people is growing, the need for transplant of human organs is becoming bigger. A way to solve this issue is by using cells from a person to grow organs in the lab. Some people disagree with this idea. How important do you think are the following when trying to make a decision on this issue

Check all that apply.

	Not important	some what important	Important	Very important	most importar
Scientific evidence					
Personal opinion					
Personal experience					
Data from experiments related to the issue					
The financial aspects of the problem					
The moral/ ethical aspect of the problem					
Information from social media					
The religious aspect of the problem					
An understanding of the science behind the issue					
Trust in scientific work					

15. Explain you response on the previous question if you wish.

16. Consider the following socioscientific issue: Kate is introducing to her class the topic of eating insects as a way to reduce the carbon footprint. How important do you think are the following when considering the scientific issue of eating insects? *

Check all that apply.

	Not important	some what important	Important	Very important	most importar
Scientific evidence					
Personal opinion					
Personal experience					
Data from experiments related to the issue					
The financial aspects of the problem					
The moral/ ethical aspect of the problem					
Information from social media					
The religious aspect of the problem					
An understanding of the science behind the issue					
Trust in scientific work					

17. Explain you response on the previous question if you wish.

Beliefs on teaching socioscientific issues

18. How appropriate are the following methods for teaching socioscientific issues? *

	Not appropriate	somewhat appropriate	appropriate	very appropriate	most appropriate
Lecture					
Experiment					
Discussion					
Role play					
Memorizing facts					
Inquiry-based teaching					
group work					
debate					
story telling					
Other					

19. Jane is discussing the issue of plastic waste in her class and one of the students says that she does not care is there is waste because she has to wear gloves to keep safe from cov
19. What do you think is a more appropriate response from Jane? *

	Not appropriate	some what appropriate	Appropriate	Very appropriate	most appropriat
Tell the student she is wrong and explain the science behind her thinking					
Tell the student she is right and ask her to explain her reasoning					
Ask the student why she thinks that and invite the rest of the class to contribute					
Tell the student she is free to choose					
Ask the student to provide evidence and engage the class in a debate					

20. Mike will introduce the issue of alternative sources of energy (i.e. use of solar or wind energy) to his class. Which of the following are more appropriate ways to introduce the topic? *

	Not appropriate	some what appropriate	Appropriate	Very Appropriate	most appropriat
Present information on alternative sources of energy and explain the positive aspects					
Present information on alternative sources of energy and explain the positive and negative aspects					
Ask students to share their opinions on the use of alternative sources of energy and then					
Ask students to engage in debates and find information to support their opinion					
Do a lecture about alternative sources of energy					

21. I believe that SSI *

Check all that apply.

	Strongly Agree	Agree	some what agree	Disagree	Strongly Disagree
Should be taught as a separate subject in schools					
Should be integrated in science					
Should be integrated in mathematics					
Should be integrated in social studies					
Does not belong to science teaching					
Does not belong to mathematics teaching					
Have a single correct answer					
Are difficult to discuss with students					
are important					
can help students appreciate the uncertainties of science					
can help students acquire decision making skills					

22. How comfortable to you feel about teaching socioscientific issues in your class? *

Mark only one oval.

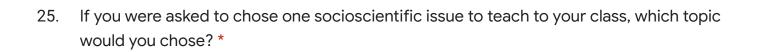
 1
 2
 3
 4

 Very comfortable
 Image: Comparison of the second se

23. How comfortable to do feel about discussing issues with uncertainties (i.e. not a single correct answer)? *

	1	2	3	4	5	
very comfortable	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	not comfortable

24. Please explain your response *



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