Elementary Engineering Survey

Background Information

In this	s section of the survey, we ask you some questions about your background.
1. V	Nhere do you teach?
0	Chesterfield-Goshen
0	Southampton
0	Westhampton
0	Williamsburg
2. V	What grade(s) do you teach? Check all that apply.
	PK
	κ
	Grade 1
	Grade 2
	Grade 3
	Grade 4
	Grade 5
	Grade 6
3. I	am:
	Female
0	Male
4 8	Mu ana iar
	My age is:
0	20-29
0	30-39
	40-49
0	50-59
0	60+
5. I	have been teaching for:
0	Less than 5 years
0	5 to 10 years
0	11 to 20 years
0	20 or more years

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Current Engineering Education in Your Classroom

This section determines what you are currently teaching for engineering. The formal definition of engineering is the discipline, skill, and profession of acquiring and applying scientific, economic, social, and practical knowledge, in order to design and build structures, machines, devices, systems, materials and processes. In the context of preschool and elementary school, include any activities that allow children to design and build using materials of any kind. The first question gives some example of engineering activities.

mater	ials of any kind. The first questi	on gives some e	xample of engine	eering activities.	•		J	J
	Vhich of the followi	_	_	ring or buil	ding activ	ities typica	ılly take	place in
	Blocks							
	Bridge building							
	DUPLO							
	Electrical circuit or electronic k	xits						
	LEGO (non-robotics)							
	Make musical instruments							
	Marble runs							
	Programming							
	Robotics (LEGO WeDo, LEGO	NXT, BeeBot, e	tc)					
	Sand table							
	Simple machine kits							
	Take apart center							
	Water table							
	Other (please specify). If more	than one, make	a comma separa	ted list.				
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	low many engineeri mentary teachers h	_		_	_		•	eand
	les. Upper elementa	•	•			•	•	
	are a specialist wh	_				·		
gra						_		-
		0	1	2	3	4		More than 5
	otics	0	0	0	0	0	0	0
Non	-robotics	O	0	О	0	O	0	O

Elementary Engineering Survey 10. If you typically use robotics in your classroom, what type of robotics kits do you use? Check all that apply. ☐ Arduino ☐ BeeBots LEGO WeDo ☐ LEGO NXT ☐ Pico Crickets ☐ Don't use robotics Other (please specify). If more than one, make a comma separated list. 11. Have you ever received professional development in engineering education (nonrobotics)? Yes O No 12. Have you ever received professional development in robotics engineering education? Yes O No

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Attitudes Towards Engineering Education

The final section of the survey asks you about your attitudes towards engineering education at the elementary level.

13. How important or unimportant is it to teach engineering to students of the following grades?

	Very Important	Somewhat Important	Somewhat Unimportant	Very Unimportant
PK and K	0	0	O	O
Grades 1 to 3	0	O	0	O
Grades 4 to 6	0	О	0	O
Middle School	0	O	0	O
High School	O	O	0	O

14. How much do you agree or disagree with the following statement? Engineering should
be part of national and state standards for elementary students (grades PK-6).

be	part of national and state standards for elementary students (grad
0	Strongly Agree
0	Agree
0	Disagree

15. How important or unimportant is it to give students hands-on learning experiences in elementary school?

•	······ • • • • • • • • • • • • • • • •
0	Very Important
0	Somewhat Important
0	Somewhat Unimportant

16. How much do you agree or disagree with the following statement? Engineering education integrates many subjects in an engaging way for students.

0	Strongly Agree
0	Agree
0	Disagree
0	Strongly Disagree

Very Unimportant

C Strongly Disagree

	mentary Engineering Survey
17.	. How easy or difficult would it be to add engineering to the your curriculum?
0	Very Easy
0	Easy
0	Difficult
0	Very Difficult
	. Which of the following (if any) are your concerns about teaching engineering to ementary students? Check all that apply.
	Administrative support
	Confidence in the subject area
	Cost of materials
	Lack of professional development
	Lack of time in the school day
	Managing the materials
	Not important to teach
	Students' ability to learn engineering
	No concerns
	Other (please specify)
	Other (please specify)
19.	With sufficient training, how confident are you that you could teach engineering to ementary students? Very Confident
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