

## Appendices

### Attitude Toward Mathematics Questionnaire

Charles University

Magdaleny Rettigrove 4

116 39 Prague 1

Czech Republic

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Dear Sir/Madam,

I am Marlene Kafui Amusuglo, a Ph.D. student at the Faculty of Education, Department of Mathematics and Mathematics Education, Charles University, Prague, Czech Republic. I am conducting research to investigate the development of knowledge and skills in initial mathematics teacher education and early years of teaching career in Ghanaian Basic Schools. This research aims to investigate how early-grade mathematics teachers develop knowledge and skills during their initial teacher education and early teaching years, with the goal of informing strategies to enhance the quality of mathematics education in Ghana. I would like to invite you to respond to the questionnaires guiding this study. I would appreciate it if you would offer objective responses. Please note that all information you provide will be treated as strictly confidential and will only be used for the purpose stated above.

Thank you for your anticipated cooperation.

Yours sincerely,

Marlene Kafui Amusuglo

(Researcher)

This questionnaire addresses your attitudes toward mathematics. Your responses will remain strictly anonymous and confidential. The information provided will be used solely for research purposes and will not be linked to your identity in any way. Instructions: Please tick (✓) the response that best represents your opinion for each item: Strongly Disagree (SD), Disagree (D), Agree (A), Strongly Agree (SA).

Gender: Female:  Male:

Age: 18 years

19 - 23

24 and above

Statements	SD	D	A	SA
I really like mathematics.				
I learn mathematics easily.				
I have a lot of self-efficacies when it comes to mathematics.				
I am comfortable answering questions in mathematics class.				
I believe I am good at solving mathematics problems.				
I would prefer to do an assignment in mathematics than write an essay.				
I am confident that I could learn advanced mathematics.				
Mathematics does not scare me at all.				
Mathematics is a very interesting subject.				
I like to solve new problems in mathematics.				
I am able to solve mathematics problems without too much difficulty.				

Mathematics makes me feel uncomfortable.				
My mind goes blank, and I am unable to think clearly when working with mathematics.				
Mathematics is one of my most dreaded subjects.				
It makes me nervous to even think about having to solve a mathematics problem.				
I am always under a terrible strain in mathematics class.				
When I hear the word mathematics, I have a feeling of dislike.				
Studying mathematics makes me feel nervous.				
I feel a sense of insecurity when attempting mathematics.				
Mathematics is dull.				
I would like to avoid using mathematics in college.				
I believe studying mathematics helps me with problem-solving in other areas.				
A strong math background could help me in my professional life.				
Mathematics helps develop the mind and teaches a person to think.				
Mathematics is important in everyday life.				

## Mathematics Teaching Efficacy beliefs Questionnaire

This questionnaire addresses your Mathematics Teaching Efficacy. Your responses will remain strictly anonymous and confidential. The information provided will be used solely for research purposes and will not be linked to your identity in any way. Correction: Instructions: Please tick (✓) the response that best represents your opinion for each item: Strongly Disagree (SD), Disagree (D), Agree (A), Strongly Agree (SA).

Gender: Female  Male:

Age: 18 years

19 - 23

24 and above

Statements	SD	D	A	SA
When a student performs better than usual in mathematics, it is often because the teacher exerted a little extra effort.				
I will continually find better ways to teach mathematics.				
Even if I try very hard, I will not teach mathematics as well as I will most subjects.				
When the mathematics grades of students improve, it is often due to their teacher having found a more effective teaching approach.				
I know how to teach mathematics concepts effectively.				
I will not be very effective in monitoring mathematics activities.				
If students are underachieving in mathematics, it is most likely due to ineffective mathematics teaching.				
I will generally teach mathematics ineffectively.				
The inadequacy of a student's mathematics background can be overcome by good teaching.				

When a low-achieving child progresses in mathematics, it is usually due to extra attention given by the teacher.

I understand mathematics concepts well enough to be effective in teaching elementary mathematics.

The teacher is generally responsible for the achievement of students in mathematics.

Students' achievement in mathematics is directly related to their teacher's effectiveness in mathematics teaching.

If parents comment that their child is showing more interest in mathematics at school, it is probably due to the performance of the child's teacher.

I will find it difficult to use manipulatives to explain to students why mathematics works.

I will typically be able to answer students' questions.

I wonder if I will have the necessary skills to teach mathematics.

Given a choice, I will not invite the principal to evaluate my mathematics teaching.

When a student has difficulty understanding a mathematics concept, I will usually be at a loss as to how to help the student understand it better.

When teaching mathematics, I will usually welcome student questions.

I do not know what to do to turn students on to mathematics.

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