

## Pre-Workshop Questionnaire

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### Preparing primary school teachers in developing countries for computational thinking teaching: A Namibian Case Study

Thank you for participating in the Computational Thinking Training Workshop. Before starting the workshop, you are requested to complete the following survey. The survey includes:

- Demographic information about your teaching background
- Questions about your understanding of computational thinking

The purpose of this research, the nature of the data that will be collected and how it will be protected is detailed in the consent form that was provided to you.

#### SECTION A

##### 1. Demographics Information

Grades Currently Taught	
Subjects Currently Taught	
Years of Teaching Experience	

#### SECTION B

**Note:** All items use a five-point Likert scale with options of: Strongly Agree (**SA**), Agree (**A**), Neutral (**N**), Disagree (**D**), Strongly Disagree (**SD**).

##### 2. CT Knowledge Comprehension

Item #	Statement	SD	D	N	A	SA
1.	I can define what computation thinking (CT) is					
2.	I can describe fundamental computational thinking concepts (e.g., algorithms, abstraction, decomposition, pattern recognition & evaluation).					
3.	I can describe fundamental coding/programming concepts (e.g., loops, variables, conditional logic).					
4.	I can look at a process and figure out how to make it more efficient.					
5.	I can suggest different solutions in order to solve problems.					
6.	I can generalize solutions that can be applied to many different problems.					
7.	I am good at finding patterns in data.					
8.	I am good at solving puzzles.					
9.	I can read a formula (e.g., algorithm, equation, input/output process) and explain what it should do.					
10.	When I'm presented with a problem, I can easily break it down into smaller steps.					
11.	When solving a problem, I work with others to solve different parts of the problem at the same time.					

12.	When solving a problem, I look how information can be collected, stored, and analyzed to help solve the problem.					
13.	When solving a problem, I create a solution where steps can be repeated.					
14.	When solving a problem, I create a solution where some steps are done only in certain situations.					
15.	When solving a problem, I try to simplify the problem by ignoring details that are not needed.					

### 3. Value Beliefs towards Computational Thinking

Item #	Statement	SD	D	N	A	SA
1.	Computing should be taught in primary schools					
2.	Learning about computing can help primary school learners become more engaged in school.					
3.	Computing is like art—you are either born with the ability to think that way or you are not.					
4.	Computing content and principles can be understood by primary school children.					
5.	My current teaching situation does lend itself to teaching computing concepts to my learners.					
6.	Knowledge of computer programming is needed in most careers.					
7.	Providing more computational thinking activities is necessary to enrich my learners' overall learning.					
8.	Computational thinking is an important 21st-century skill.					
9.	My current primary school learners are going to need to know how to apply computing concepts to remain competitive for jobs by the time they are adults.					

### 4. Self-Efficacy for Computational Thinking

Item #	Statement	SD	D	N	A	SA
1.	I feel confident using computer technology.					
2.	I feel confident writing simple instructions for another person on paper.					
3.	I know how to teach computing concepts effectively without the use of a computer.					
4.	I know how to teach programming concepts effectively without the use of a computer.					
5.	I can promote a positive attitude towards computing education to my learners.					
6.	I can guide learners in using programming as a tool while we explore other topics.					
7.	I feel confident using programming as an instructional tool within my classroom.					
8.	I can adapt lesson plans incorporating unplugged activities as an					

	instructional tool.					
<b>9.</b>	I can adapt lesson plans incorporating programming as an instructional tool.					
<b>10.</b>	I can identify how computational thinking concepts relate to the syllabus.					