# Digital Education and Partnerships Survey: Endline - Welcome to the survey! Please answer the following questions asking about your background information.

What is your:	Name:		Age:	Combination:	
Grade: Form 5	ade: Form 5 / Form 6 How many hours does it take to travel f		el from your home to your school?		
How many siblings do you have?		What is your primary guardian's occupation?			
What is the education level of your primary No schooling / Primary / O-level /				nelor's / Master's or	above
How many days per week do you study math and science outside of classroom?					
How many hours per day do you study math and science outside of classroom?					

**Section 1. Social Interactions:** In this game, we would like you to request that you make **three** decisions, where "credits" allocated to you will be converted to cash scholarship rewards.

Throughout the game, a group of participants including yourself will **receive o to 20 credits** according to **a menu of possible allocations.** One participant ("Proposer") will choose an allocation. Another participant ("Responder") will decide whether to accept or reject the proposed allocation. If the proposal is **accepted**, all of you will receive the proposed number of credits. If the offer is **rejected**, no participant will receive any credit. In some cases, the allocation will affect an additional participant ("Bystander"). You will be shown when this is the case and how all participants will be affected by the allocations.

For **each decision**, you will be randomly matched to **different** participant(s) and your roles will be randomly assigned. **All decisions will remain anonymous.** Your identities will NOT be revealed to any participant at any time before, during, or after the exercise.

After the exercise, we will report back to you with the outcomes. Thank you.

# [PROPOSER]

#### 1. *Two-player interaction game:*

4

5.5

7

Arusha International Partnership is offering 10 credits, each credit worth 500 Tanzanian shillings, for the development of Village Dunia. You and the other participant serve as leaders. The Partnership has granted you the authority to allocate the credits between you and the other leader. For the town, you want to build *roads*, but the other leader wants to plant *trees*. Each unit of *road* and each unit of *tree* costs 1 credit. (The units are of equal value; the names are simply placeholders.)

Both you and the other leader can see the following menu of allocations. Please decide how you propose to allocate the following credits between yourself and Responder. Responder will decide whether to accept or reject your proposed allocation. If Responder accepts, both of you will receive the number of credits according to your proposal. If Responder rejects, both of you will receive o.

10

10

10

1

1

5	0	1 1	
YOU RECEIVE:	Responder receives:	Total credits allocated:	Your decision:
0	10	10	[]
1.5	8.5	10	[]
3	7	10	[]

#### 1 credit = 500 Tanzanian shillings. **Please select ONLY one proposal to allocate:**

6

4.5

3

8.5	1.5	10	[]
10	0	10	[]

## 2. Three-player interaction game with a social benefit:

In this interaction, you and **two** other participants serve as leaders. The third leader, called the Bystander, wants the same thing as yourself, the Proposer. Therefore, when you propose to build *roads* instead of *trees*, it benefits an additional leader, the Bystander. When an action benefits not just oneself but another person, we say the action has a social benefit. Again, for the town, you and the Bystander want to build *roads*, but the Responder wants to plant *trees*. Each unit of *road* and each unit of *tree* costs 1 credit.

Both you and the other **two** leaders see the following menu of allocations. Please decide how you propose to allocate the following credits between yourself, the Responder, and the Bystander. The Responder will decide whether to accept or reject your proposed allocation. If the Responder accepts, all three of you will receive the number of credits according to your proposal. If the Responder rejects, all three of you will receive o.

1 credit = 500 Tanzanian shillings. Please select ONLY one proposal to allocate:

<b>YOU RECEIVE:</b>	Responder receives:	Bystander receives:	Total credits:	Your decision:
0	10	0	10	[]
1.5	8.5	1.5	11.5	[]
3	7	3	13	[]
4	6	4	14	[]
5.5	4.5	5.5	15.5	[]
7	3	7	17	[]
8.5	1.5	8.5	18.5	[]
10	0	10	20	[]

#### 3. Three-player ultimatum game with a social cost:

In this interaction, you want to build *roads*, but the Responder and the Bystander both want *trees*. Therefore, when you propose to build *roads* instead of *trees*, it incurs a cost on the additional leader, the Bystander. When an action incurs a cost on another person, we say the action has a social cost.

Both you and the other **two** leaders see the following menu of allocations. Please decide how you propose to allocate the following credits between yourself, the Responder, and the Bystander. The Responder will decide whether to accept or reject your proposed allocation. If the Responder accepts, all three of you will receive the number of credits according to your proposal. If the Responder rejects, all three of you will receive o.

1 credit = 500 Tanzanian shillings. **Please select ONLY one proposal to allocate:** 

YOU RECEIVE:	Responder receives:	Bystander receives:	Total credits:	Your decision:
0	10	10	20	[]
1.5	8.5	8.5	18.5	[]
3	7	7	17	[]
4	6	6	16	[]
5.5	4.5	4.5	14.5	[]
7	3	3	13	[]
8.5	1.5	1.5	11.5	[]
10	0	0	10	[]

# [RESPONDER]

#### 1. Two-player interaction game screen:

Arusha International Partnership is offering 10 credits, each credit worth 500 Tanzanian shillings, for the development of Village Dunia. You and the other participant serve as leaders. The Partnership has asked the other leader to allocate the credits between you and her. For the town, you want to plant trees, but the other leader wants to build roads. Each unit of tree and each unit of road costs 1 credit.

Please decide how you would respond to each allocation that Proposer might offer to you without knowing your response in advance. At this point in time, we do not know which allocation the matched Proposer would propose. Your indicated response to Proposer's chosen allocation will determine the final allocation. If you indicate you would accept, both of you will receive the number of credits according to the Proposer's offer. If you indicate you would reject, both of you will receive o.

<b>D</b> uonocen noceinea.	YOU RECEIVE:	Total credits	You would:	
Proposer receives:	IOU KECEIVE:	allocated:	Accept	Reject
0	10	10	[]	[]
1.5	8.5	10	[]	[]
3	7	10	[]	[]
4	6	10	[]	[]
5.5	4.5	10	[]	[]
7	3	10	[]	[]
8.5	1.5	10	[]	[]
10	0	10	[]	[]

1 credit = 500 Tanzanian shillings. **Please select how you would like to respond in each case:** 

# 2. Three-player interaction game with a social benefit:

In this interaction, you and **two** other participants serve as leaders. The third leader, called the Bystander, wants the same thing as the Proposer. Therefore, when the Proposer propose to build *roads* instead of *trees*, it benefits an additional leader, the Bystander. When an action benefits not just oneself but another person, we say the action has a social benefit. Again, for the town, the Proposer and the Bystander want to build *roads*, but you want to plant *trees*. Each unit of *road* and each unit of *tree* costs 1 credit.

Please decide how you would respond to each allocation that Proposer might offer to you without knowing your response in advance. At this point in time, we do not know which allocation the matched Proposer would propose. Your indicated response to Proposer's chosen allocation will determine the final allocation. If you indicated you would accept, all three of you will receive the number of credits according to the Proposer's offer. If you indicated you would reject, all three of you will receive o.

1 credit = 500 Tanzanian shillings. **Please select how you would like to respond in each case:** 

Proposer	You receive:	Bystander	Total	You would:	
receives:	Tou receive:	receives:	credits:	Accept	Reject
0	10	0	10	[]	[]
1.5	8.5	1.5	11.5	[]	[]
3	7	3	13	[]	[]
4	6	4	14	[]	[]
5.5	4.5	5.5	15.5	[]	[]
7	3	7	17	[]	[]
8.5	1.5	8.5	18.5	[]	[]
10	0	10	20	[]	[]

## 3. Three-player interaction game with a social cost:

In this interaction, the Proposer want to build roads, but you and the Bystander both want trees. Therefore, when the Proposer proposes to build roads instead of trees, it incurs a cost on the additional leader, the Bystander. When an action incurs a cost on another person, we say the action has a social cost.

Please decide how you would respond to each allocation that Proposer might offer to you without knowing your response in advance. At this point in time, we do not know which allocation the matched Proposer would propose. Your indicated response to Proposer's chosen allocation will determine the final allocation. If you indicated you would accept, all three of you will receive the number of credits according to the Proposer's offer. If you indicated you would reject, all three of you will receive o.

1 credit = 500 Tanzanian shillings. **Please select how you would like to respond in each case:** 

Proposer receives:	YOU RECEIVE:	Bystander receives:	Total credits allocated:	If Proposer made this offer, you would:		
receives:	KECEIVE:	receives:	unocateu:	Accept	Reject	
0	10	10	20	[]	[]	
1.5	8.5	8.5	18.5	[]	[]	
3	7	7	17	[]	[]	
4	6	6	16	[]	[]	
5.5	4.5	4.5	14.5	[]	[]	
7	3	3	13	[]	[]	
8.5	1.5	1.5	11.5	[]	[]	
10	0	0	10	[]	[]	

#### 1. Two-player interaction game screen:

How many Responders out of 100 do you think would ACCEPT each of the following proposed allocations? Please enter your expectation for each proposal.

Proposer receives	Responder receives	Total credits	How many Responders out of 100 would ACCEPT this proposal?
0	10	10	
1.5	8.5	10	
3	7	10	
4	6	10	
5.5	4.5	10	
7	3	10	
8.5	1.5	10	
10	0	10	

2. Three-player interaction game with a social benefit:

How many Responders out of 100 would ACCEPT each of the following proposed allocations? Please enter your expectation for each proposal.

Proposer receives	Responder receives	Bystander receives	Total credits	How many Responders out of 100 would ACCEPT this proposal?
0	10	0	10	
1.5	8.5	1.5	11.5	
3	7	3	13	
4	6	4	14	
5.5	4.5	5.5	15.5	
7	3	7	17	
8.5	1.5	8.5	18.5	
10	0	10	20	

3. Three-player interaction game with a social cost:

How many Responders out of 100 would ACCEPT each of the following proposed allocations? Please enter your expectation for each proposal.

Proposer receives	Responder receives	Bystander receives	Total credits	How many Responders out of 100 would ACCEPT this proposal?
0	10	10	20	
1.5	8.5	8.5	18.5	
3	7	7	17	
4	6	6	16	
5.5	4.5	4.5	14.5	
7	3	3	13	
8.5	1.5	1.5	11.5	
10	0	0	10	

#### **Free Response**

Would you like to explain why you made some or all of the decisions you made in the social interaction exercise	se
[optional]?	

Were there any parts of the game that were confusing or unclear to you [optional]?

## Section 2: Charity/Equity Exercise

Next are three questions that ask you to allocate or donate resources. In this exercise, you receive additional credits on top of those determined above. These additional credits have real-life charitable giving implications.

2.1	We are giving you 10 extra credits. You can choose how much to keep yourself or donate to a healthy young brother or sister in a poor household in need of education support. You can choose not to give and keep all 10 credits for yourself if you want. How many credits would you like to give?									
[	<b>o</b> ]	[1.5]	[3]	[4]	[5.5]	[7]	[8.5]	[10]		
2.2	Now, we would like to ask you to choose between two extra giving options to support additional young children from poor households in need of education support. Which option would you like?									
		Support one c l with o credit		redits and	[ ] Option 2: 4 credits eacl	Support two o h.	children with 4	4 credits and		
2.3	<b>3</b> We are giving you 10 extra credits. You can choose how much to keep for yourself or donate to a young brother or sister <b>with disability</b> in a poor household in need of education support. You can choose not to give and keep all 10 credits for yourself if you want. How many credits would you like to give?									
[	0]	[1.5]	[3]	[4]	[5.5]	[7]	[8.5]	[10]		

#### **Refresher:**

Thank you very much for your responses. Soon, we will report back your allocations and share your scholarship rewards in an envelope equivalent in value to your credits.

Additionally, we will report back to you if you were a Bystander in an exercise, and we will send you cash in an envelope that corresponds to your resulting credits.

#### Section: Interaction-related Psychosocial Well-being

Next are questions that ask your feelings about the outcomes of each interaction on the previous Partnerships survey. Please refer to outcomes as indicated on your Credit Slip.

1		For this question, please refer to the outcome of Game 1 shown on the slip, where the role you played is shown <u>underlined</u> . How did you feel about this interaction and the outcome?								
[] Very upset	[]Very upset []Upset []Slightly upset []Neutral []Slightly satisfied []Sa									
2	Please refer to the outcome of Game 2, where the role you played is shown <u>underlined</u> . How did you feel about this interaction and the outcome?									
[] Very upset	Very upset  []Upset  []Slightly upset  []Neutral  []Slightly satisfied  []Satisfied  []Very satisfied									

3		Please refer to the outcome of Game 3 shown on the slip, where the role you played is shown <u>underlined</u> . How did you feel about this interaction and the outcome?									
[] Very upset [] Upset [] Slightly upset [] Neutral [] Slightly satisfied [] Satisfied [] Very satisfied											
Would you like	e to explain what	about the intera	action(s) made y	you feel this way	[optional]?						

# Section 3: Social Interactions

Next are questions about your social behavior and preferences. Please let us know to what extent you agree.

3.1	"If ther plate."	e is a small amo	unt of pilau prep	pared for family	dinner, I will try	to take most of	it to my		
	trongly agree	[] Disagree	[ ] Slightly disagree	[ ] Do not agree nor disagree	[] Slightly agree	[] Agree	[ ] Strongly agree		
3.2	"When	my friend needs	help with her h	omework, I am	willing to spend	my time to help	her."		
	trongly agree	[] Disagree	[ ] Slightly disagree	[ ] Do not agree nor disagree	[] Slightly agree	[] Agree	[ ] Strongly agree		
3.3	I think:	"People don't n	eed to be fair in	order to live a g	ood life."				
	trongly agree	[] Disagree	[ ] Slightly disagree	[ ] Do not agree nor disagree	[] Slightly agree	[] Agree	[ ] Strongly agree		
3.4	<b>4</b> "What makes a good life is not determined by being fair, but by keeping the most benefit to oneself."								
	trongly agree	[] Disagree	[ ] Slightly disagree	[ ] Do not agree nor disagree	[] Slightly agree	[] Agree	[ ] Strongly agree		
3.5	"One's	own happiness is	s separate from	the happiness of	f others."				
[] St disa	trongly agree	[] Disagree	[ ] Slightly disagree	[ ] Do not agree nor disagree	[] Slightly agree	[] Agree	[ ] Strongly agree		
3.6	"Incom	es should be ma	de more equal e	ven if it discour	ages individual e	effort."			
	trongly agree	[] Disagree	[ ] Slightly disagree	[ ] Do not agree nor disagree	[] Slightly agree	[] Agree	[ ] Strongly agree		
<b>3.</b> 7		ir to tax rich peo ns to benefit the		ate than ordina	ry people in orde	er to help pay fo	r government		
	trongly agree	[] Disagree	[ ] Slightly disagree	[ ] Do not agree nor disagree	[] Slightly agree	[] Agree	[ ] Strongly agree		
3.8		en with disabilit n schools."	ies should be giv	ven equal oppor	tunity to access,	learn, and prog	ress in		
	trongly agree	[] Disagree	[ ] Slightly disagree	[ ] Do not agree nor disagree	[ ] Slightly agree	[] Agree	[ ] Strongly agree		
3.9		hool and govern inity to access, le			of giving childre chools."	n with disabiliti	ies equal		
	trongly agree	[] Disagree	[ ] Slightly disagree	[ ] Do not agree nor disagree	[] Slightly agree	[] Agree	[ ] Strongly agree		
3.10		hool and govern ties to access, lea			o improve the op nools."	portunities for	children with		
	trongly agree	[] Disagree	[ ] Slightly disagree	[ ] Do not agree nor disagree	[ ] Slightly agree	[] Agree	[ ] Strongly agree		
3.11		ion of students v ng of teachers."	vith disabilities i	in the classroom	will require sign	nificant resourc	es and		
	trongly agree	[] Disagree	[ ] Slightly disagree	[ ] Do not agree nor disagree	[] Slightly agree	[] Agree	[ ] Strongly agree		

3.12	about people in different circumstances."									
	trongly agree	[] Disagree	[ ] Slightly disagree	[ ] Do not agree nor disagree	[] Slightly agree	[] Agree	[] Strongly agree			
3.13	minded."									
	trongly agree	[] Disagree	[ ] Slightly disagree	[ ] Do not agree nor disagree	[] Slightly agree	[] Agree	[ ] Strongly agree			
3.14	"I woul	d NOT mind if a	student with di	sabilities sits ne	xt to me."					
	trongly agree	[ ] Disagree	[ ] Slightly disagree	[ ] Do not agree nor disagree	[] Slightly agree	[] Agree	[ ] Strongly agree			
3.15	"I woul	d stand with a st	udent with disa	bilities who is be	eing teased."					
							[] Strongly agree			

# Section 4: Psychosocial Wellbeing

Next are questions and statements that are about your psychosocial wellbeing.

4.1	How often	n do you feel angry?	)							
[]	Every day	[] Once in 2 or 3 days	[]On	ce in a week	[] Once in	15 days	[] Once in a mon	th [] Rare	ly	
4.2	How often	n do you feel annoy	ed?							
[]	Every day	[] Once in 2 or 3 days	[]On	ce in a week	[] Once in	15 days	[] Once in a mon	th [] Rare	ly	
4.3	How often	do you feel lonely	?							
[]	Every day	[] Once in 2 or 3 days	[]On	ce in a week	veek [] Once in 15 days [] Once		[] Once in a mon	th [] Rare	ly	
4.4	How often	n do you feel jealou	s of oth	ers?						
[]	Every day	[] Once in 2 or 3 days	[]On	ce in a week	[] Once in	15 days	[] Once in a mon	th [] Rare	ly	
4.5	How often	n do you feel difficu	lty con	centrating o	on your stud	lies?				
[]	[] Every day [] Once in 2 or 3 days		[] On	ce in a week	[] Once in 15 days [] Onc		[] Once in a mon	th [] Rare	ly	
4.6	How often	n do you worry abo	ut your	future?						
[]	Every day	[] Once in 2 or 3 days	[]On	ce in a week	[] Once in	15 days	[] Once in a mon	th [] Rare	ly	
4.7	In the last	month, how often	have yo	ou been ups	et because	someth	ing unexpected	happened?		
	[] Never	[] Almost ne	ver	[] Sometimes		[ ] Fairly often		[] Very ofter	n	
4.8	In the last	month, how often	have yo	ou felt you v	vere unable	to cont	rol important t	hings in your li	fe?	
	[] Never	[] Almost ne	ver	[ ] Son	netimes	[]	] Fairly often	[] Very ofter	n	
4.9	In the last	month, how often	have yo	ou felt nervo	ous or stres	sed?				
	[] Never	[ ] Almost ne	ver	[ ] Som	netimes	[	] Fairly often	[] Very ofter	n	
4.10	In the last	month, how often	have yo	ou felt that t	things were	going y	our way?			
	[] Never	[ ] Almost ne	ver	[ ] Som	netimes	[	] Fairly often	[] Very ofter	n	
4.11	In the last	month, how often	have yo	ou been able	e to control	annoya	nces in your lif	e?		
	[] Never	[] Almost ne	ver	[ ] Som	netimes	[ ] Fairly often		[] Very ofter	[] Very often	

# Section 5: STEM interest

Next are six statements that you may agree or disagree with regarding your own interest in Science, Technology, Engineering, and Mathematics field, which will be shortened as STEM during the survey.

5.1	"I woul	"I would like to spend extra time in addition to school, studying subjects related to STEM."									
	trongly agree	[] Disagree	[ ] Slightly disagree	[ ] Do not agree nor disagree	[ ] Slightly agree	[] Agree	[] Strongly agree				

5.2	"I hope	to pursue an ad	vanced educatio	n or training to	gain specialized	knowledge in S	STEM subjects."		
	Strongly sagree	[ ] Disagree	[ ] Slightly disagree	[ ] Do not agree nor disagree	[ ] Slightly agree	[] Agree	[ ] Strongly agree		
5.3	"I hope	to pursue my ca	reer in STEM."		· · · · · ·		-		
	Strongly sagree	[] Disagree	[ ] Slightly disagree	[ ] Do not agree nor disagree	[ ] Slightly agree	[] Agree	[ ] Strongly agree		
5.4	"I aspire to be a leader or one of the best in STEM fields."								
	Strongly sagree	[] Disagree	[ ] Slightly disagree	[ ] Do not agree nor disagree	[ ] Slightly agree	[] Agree	[ ] Strongly agree		
5.5	"I feel S	STEM subjects a	re useful to my l	ife."					
	Strongly sagree	[ ] Disagree	[ ] Slightly disagree	[ ] Do not agree nor disagree	[ ] Slightly agree	[] Agree	[ ] Strongly agree		
5.6	"I feel S	STEM subjects a	re useful to socie	ety in general."					
	Strongly sagree	[] Disagree	[ ] Slightly disagree	[ ] Do not agree nor disagree	[ ] Slightly agree	[] Agree	[ ] Strongly agree		

# Section 6: Gender Attitude

Next are five statements that are about your gender attitude.

6.1	"Going to university is more important for a boy than for a girl."								
[	] Never true of/to me	[ ] Slightly true of/to me	[] Mostly true of/to me	[] Very true of/to me					
6.2	"Girls, compared to problems."	boys, have similar ability to	write programming codes o	r solve mathematical					
[] Never true of/to me [] Slightly true of/to me [] Mostly true of/to me [] Very true of/to me									
6.3	"Men make better scientists or engineers than women do."								
[	] Never true of/to me	[ ] Slightly true of/to me	[ ] Slightly true of/to me [ ] Mostly true of/to me						
6.4	"Men should work	outside home, and women s	hould stay home and be a go	od homemaker."					
[	] Never true of/to me	[ ] Slightly true of/to me	[] Mostly true of/to me	[] Very true of/to me					
6.5	"It is normal that men teach/coach/manage women in academic/professional environments."								
]	] Never true of/to me	[ ] Slightly true of/to me	[ ] Slightly true of/to me [ ] Mostly true of/to me						

# Section 7: Blood Donation

7.1	Did you give blood this year? (Please note: giving blood is not required.)	[]Yes []No
7.2	How many times did you give blood this year?	

## Section 8: Social Attitude

Next are three statements that are about your personal feelings and behavior.

8.1	I feel little concern for others.								
[]	[] Never true of/to me [] Slightly true of/to me [] Mostly true of/to me [] Very true of/to me								
8.2	I often insult people.								
[]	] Never true of/to me	[ ] Slightly true of/to me	[] Mostly true of/to me	[ ] Very true of/to me					
8.3	I take time out to help others.								
[]	] Never true of/to me	[ ] Slightly true of/to me	[ ] Mostly true of/to me	[ ] Very true of/to me					

# Section 9: Digital Exposure

Next are questions about your usage of and exposure to the Internet and social media.

9.1	Do you	own a smar	tphone at home?					[]Yes	[ ] No
9.2	Do you	use social m	edia (e.g., WhatsAp	op, Insta	gram, Fa	acebook, YouTul	oe, TikTok)?	[]Yes	[ ] No
9.3	When y	ou are at ho	me, how many days	s per wee	ek do you	u use the Interne	et?		
9.4	When y	rou are at ho	me, how many hou	rs per da	y do you	use the Interne	t?		
9.5	"There	have been ti	mes when I was cor	nstantly	thinking	about using soc	ial media and	chatting	apps."
[] Strongly [] Disagree disagree		e [] Slightly disagree		iot agree sagree	[ ] Slightly agree	[] Agree	[] Stro	ngly agree	
9.6	You took a hilarious picture of a kid at school. If you share it, you will get lots of likes and shares. What do you do?								
the pub	lic and tag h	ke it visible to her but be sure ice about her.	[ ] Upload it but don't ta doesn't affect her pr			load it so that only you sest friends can see.		er if you can share the with your friends.	
9.7	"I am ca	areful about	the security of wha	t I post c	online."				
	trongly agree	[] Disagree	e [ ] Slightly disagree		iot agree sagree	[] Slightly agree	[] Agree	[] Stro	ngly agree
9.8	"My pa	rents and tea	achers talk to me ab	out how	to decid	le if online infor	mation can be	e trusted o	or not."
	trongly agree	[] Disagree	e [ ] Slightly disagree		iot agree sagree	[] Slightly agree	[] Agree	[] Stro	ngly agree

#### (AA) Digital Education and Partnerships Survey: Endline – Section Z.

What is your:	Name:	Grade: Form 5 / Form 6
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In this last section of the survey, we again give you 10 extra credits that you can use or keep for yourselves! This section is about four C++ and Scratch programs you may have seen: the C++ Compiler, C++ Calculator, Scratch Adiah, and Scratch Barika programs.

Please do not worry if you have not seen all four programs. Some of you have seen more lessons about these programs than others. Please answer the following questions only about the lessons you have seen.

In question **Z1**, we are interested in understanding how the lessons may have affected your experience with each of the survey games. We would like to understand how you value this effect, and we would like to give you a chance to express this value by donating some credits back to the lesson designers.

For example, some of you may think that the lessons did not affect your experience. In this case, your answer may be 0. Some of you may judge the lessons to have had a positive effect and may even be willing to donate more than 10 credits. Please cap your answers at 10 credits. Others may judge the lessons to have had a negative effect—that is, you would have rather seen a different lesson or not seen the lessons at all before playing the games. If so, you may express this disappointment by asking for more credits from the lesson designers.

Again, the following questions are only about the lessons you have seen so far regarding the C++ Compiler, C++ Calculator, Scratch Adiah, and Scratch Barika programs.

Finally, please note that some of you will be asked to answer questions **Z1** through **Z3** below now, while others will be asked to answer these questions at the end of this section. If you see questions **Z1** through **Z3** printed for you immediately below, please answer them now. If you do not see questions Z1 through Z3 printed for you immediately below, you will see them printed at the end, so please wait to answer them at the end.

Questions **Z5** through **Z10** ask you about the same programming lessons. Please let us know to what extent you agree or disagree.

	(c1)	(c2)	(c3)	(c4)	(c5)	(c6)	(c7)
Z5	"The program	nming lessons were d	ifficult."				
[]S	trongly disagree	[] Disagree	[ ] Slightly disagree	[ ] Do not agree nor disagree	[ ] Slightly agree	[] Agree	[ ] Strongly agree
Z6	"The program	nming lessons showe	d me I was good at pr	ogramming."			
[]S	trongly disagree	[] Disagree	[ ] Slightly disagree	[ ] Do not agree nor disagree	[ ] Do not agree nor [ ] Slightly agree [ ] Agree		[ ] Strongly agree
<b>Z</b> <sub>7</sub> "The programming lessons promote economic growth."							
[]S	trongly disagree	[] Disagree	[ ] Slightly disagree	[ ] Do not agree nor disagree	disagree		[ ] Strongly agree
<b>Z8</b>	"The program	nming lessons promo	te equality among pe	ople."			
[]S	trongly disagree	[] Disagree	[ ] Slightly disagree	[ ] Do not agree nor disagree	[ ] Slightly agree	[] Agree	[ ] Strongly agree
Z9	"The program	nming lessons inform	ed me about what I s	hould value for myse	f and others when int	eracting with people.	."
[]S	trongly disagree	[] Disagree	[ ] Slightly disagree	[ ] Do not agree nor disagree	[ ] Slightly agree	[] Agree	[ ] Strongly agree
Z10	"The program	nming lessons inform	ed me about how to b	oehave strategically w	hen interacting with J	people."	
[]S	trongly disagree	[] Disagree	[] Slightly disagree	[ ] Do not agree nor disagree	[ ] Slightly agree	[] Agree	[ ] Strongly agree

Questions **Z11** through **Z13** ask you about how many Responders out of 100 you think would accept or reject each proposal: specifically, how people who saw the same programming lessons you have seen would behave. If your answers are identical to your answers in previous pages, please skip this part.

**Z11.** *Two-player interaction game*. How many Responders out of 100 who saw the same programming lessons you have seen do you think would {ACCEPT} each proposal below?

**Z11\_1.** Is your answer identical to your answers in previous pages? [ Yes / No ] If "Yes," skip the table below.

	Proposer receives	Responder receives	Total credits	How many Responders out of 100 would {ACCEPT} this proposal?
(r1)	0	10	10	
(r2)	1.5	8.5	10	
(r3)	3	7	10	
(r4)	4	6	10	
(r5)	5.5	4.5	10	
(r6)	7	3	10	
(r7)	8.5	1.5	10	
(r8)	10	0	10	

**Z12.** *Three-player interaction game with social benefits.* How many Responders out of 100 who saw the same Scratch programming lessons you have seen would {ACCEPT} each proposal below?

**Z12\_1.** Is your answer identical to your answers in previous pages? [ Yes / No ] If "Yes," skip the table below.

	Proposer receives	Responder receives	Bystander receives	Total credits	How many Responders out of 100 would {ACCEPT} this proposal?
(r1)	0	10	0	10	
(r2)	1.5	8.5	1.5	11.5	
(r3)	3	7	3	13	
(r4)	4	6	4	14	
(r5)	5.5	4.5	5.5	15.5	
(r6)	7	3	7	17	
(r7)	8.5	1.5	8.5	18.5	
(r8)	10	0	10	20	

**Z13.** *Three-player interaction game with social costs.* How many Responders out of 100 who saw the same Scratch programming lessons you have seen would {ACCEPT} each proposal below?

**Z13\_1.** Is your answer identical to your answers in previous pages? [ Yes / No ] If "Yes," skip the table below.

	Proposer receives	Responder receives	Bystander receives	Total credits	How many Responders out of 100 would {ACCEPT} this proposal?
(r1)	0	10	10	20	
(r2)	1.5	8.5	8.5	18.5	
(r3)	3	7	7	17	
(r4)	4	6	6	16	
(r5)	5.5	4.5	4.5	14.5	
(r6)	7	3	3	13	
(r7)	8.5	1.5	1.5	11.5	

	(r8)	10	0	0	10	
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Questions **Z14** through **Z16** ask you how the programming lessons may have affected how you respond to UNFAIR proposals and whether this experiencing this effect was a positive or a negative experience for you. Please let us know to what extent you agree or disagree.

	(c1)	(c2)	(c3)	(c4)	(c5)	(c6)	(c7)						
Z14	"The program	nming lessons made	ne more likely to acce	ept UNFAIR proposal	s."								
[ ] Sti	[] Strongly disagree    [] Disagree    [] Slightly disagree    [] Do not agree nor disagree    [] Slightly agree    [] Agree    [] Strongly agree												
Z15	Z15 "When I reflect on the above influence the programming lessons had on me, I become upset."												
[ ] Sti	rongly disagree	[] Disagree	[ ] Slightly disagree	[ ] Do not agree nor disagree	[ ] Slightly agree	[] Agree	[ ] Strongly agree						
Z16	Z16 "When I reflect on the above influence the programming lessons had on me, I become happy."												
[ ] Sti	rongly disagree	[] Disagree	[ ] Slightly disagree	[ ] Do not agree nor disagree	[ ] Slightly agree	[] Agree	[ ] Strongly agree						

Finally, for those of you who have answered questions **Z1** through **Z3** before, you are done. Please do not return to previous questions. Please flip your survey over and wait until others finish.

For those of you who did not see questions **Z1** through **Z3** printed before, they are printed for you below, and now is your chance to answer them. Here, again, we are interested in understanding how the programming lessons may or may not have affected your experience with each of the survey games. We would like to understand how you value this effect, and we would like to give you a chance to express this value by donating some credits back to the lesson designers.

For example, some of you may think that the lessons did not affect your experience. In this case, your answer may be 0. Some of you may judge the lessons to have had a positive effect and may even be willing to donate more than 10 credits. Please cap your answers at 10 credits. Others may judge the lessons to have had a negative effect—that is, you would have rather seen a different lesson or not seen the lessons at all before playing the games. If so, you may express this disappointment by asking for more credits from the lesson designers.

Again, the following questions are only about the lessons you have seen so far regarding the C++ Compiler, C++ Calculator, Scratch Adiah, and Scratch Barika programs.

Z1. How much are you willing to donate to express the value of the average effect the lessons have had on each of the games you have played?

(c1)	(c2)	(c3)	(c4)	(c5)	(c6)	(c7)	(c8)	(c9)	(c10)	(c11)	(c12)	(c13)	(c14)	(c15)
"The	lessons nega mo	atively affe ore credits				receive	"No effect"	"The l	essons pos do	•	ected my e its to the d	-		ling to

[-10]  [-8.5]  [-7]  [-5.5]  [-4]  [-3]  [-1.5]  [0]  [1.5]  [3]  [4]  [5.5]  [7]  [8.5]
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In questions **Z2** and **Z3**, we would like to understand how you derived some of this value. For example, to what extent did you derive this value because the programming lessons affected your views on fairness? To what extent did you derive this value because the programming lessons otherwise affected your strategic and logical reasoning given people's attitudes?

**Z2.** To what extent did you derive this value because the programming lessons affected your views on fairness?

(c1)      (c2)      (c3)      (c4)      (c5)      (c6)      (c7)								(c9)	(c10)	(c11)	(c12)	(c13)	(c14)	(c15)
"I am disappointed in how the lessons affected my views on fairness."						"No effect"	"I am delighted in how the lessons affected my views on fairness."						on	
[-10]	[-8.5]	[-7]	[-5.5]	[-4]	[-3]	[-1.5]	[o]	[1.5]	[3]	[4]	[5.5]	[7]	[8.5]	[10]

Z3. To what extent did you derive this value because the programming lessons affected your strategic and logical reasoning given people's attitudes?

(c1)	(c2)	(c3)	(c4)	(c5)	(c6)	(c7)	(c8)	(c9)	(c10)	(c11)	(c12)	(c13)	(c14)	(c15)
"I am disappointed in how the lessons affected my strategic and logical reasoning given people's attitudes."						"No effect"	"I am delighted in how the lessons affected my strategic and lo reasoning given people's attitudes."						d logical	
[-10]	[-8.5]	[-7]	[-5.5]	[-4]	[-3]	[-1.5]	[o]	[1.5]	[3]	[4]	[5.5]	[7]	[8.5]	[10]

# Z4. [Free Response]

Would you like to add any other thoughts about the programming lessons [optional]?