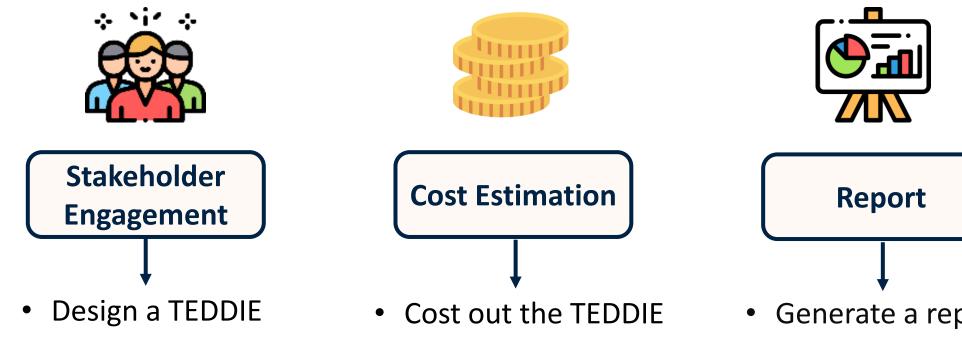


Costing Tool for a Tech-EnableD Disability Inclusive Education (TEDDIE) Intervention

> Yilin Pan The World Bank February 8, 2024

What is the tool for?

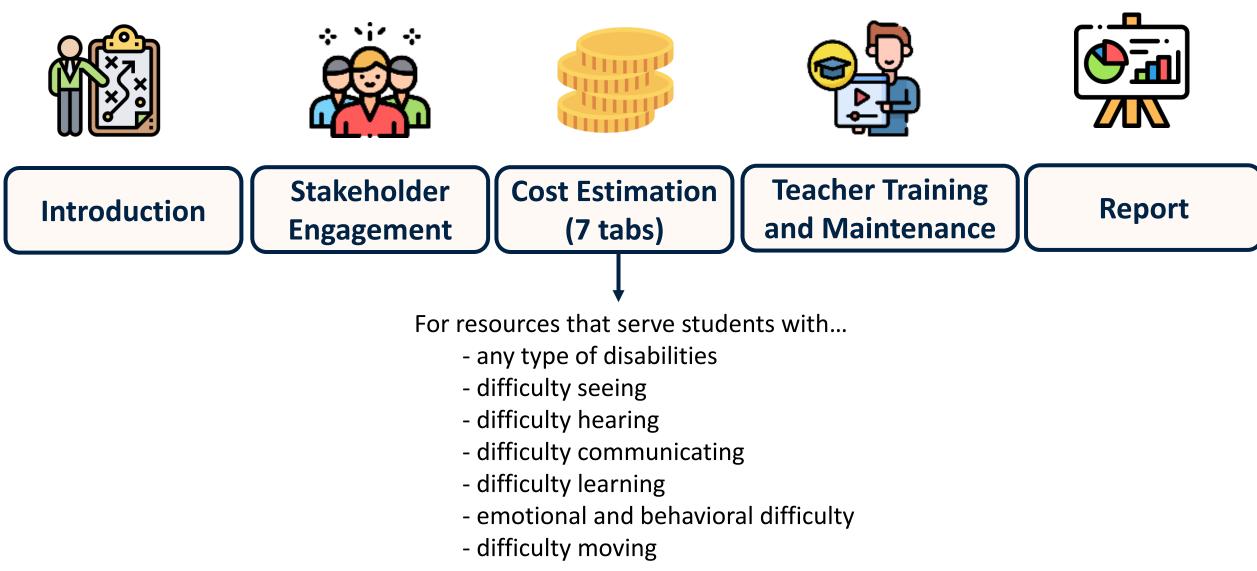


minimum package

minimum package

Generate a report of cost estimates to inform budgeting decisions

How is the tool structured?





A built-in list of recommended resources for each type of disability











<Click on the i

Cost Estimation: For students with difficulty seeing

Cost Estima	tion					
Pillars	Resources	Local device	Name in local language	Minimum specifications	Must-have or good-to-have?	Available F locally?
A. Digital devices, t	A. Digital devices, tools, and hardware					· · · · · · · · · · · · · · · · · · ·
A1. ICT hardware	PCs					
	Laptops					
	Tablets					
	Mobile phones					
	Smartphones					
	Data plans					
	Screens					
	<to added="" be=""></to>					
	<to added="" be=""></to>					
	<to added="" be=""></to>					
	<to added="" be=""></to>					
A2. Assistive	White canes					
-	Prescription eye	eglasses				
digital and non-	Handheld magn	,				
digital equipment	Vibrating wrist	watches				



A built-in list of recommended resources for each type of disability



High interactivity to accommodate the iterative process of designing the minimum package

Cost <u>Estima</u>	Cost Estimation										
Pillars	Resources	Must-have or good-to-have?	Available locally?	Functional offline?	Qu	antity	Replacement frequency (in years)	Needs maintenance? (Yes/No/Not			
A. Digital devices, tools, and hardware											
A1. ICT hardware	PCs				set(s	3)					
	Laptops	Must-have	✓ Yes	Yes	set(s	3)					
	Tablets Must-				set(s	3)					
	Mobile phones	l-to-have			set(s						
	Smartphones				set(s						
	Data plans				set(s						
	Screens				set(s						
	<to added="" be=""></to>				set(s						
	<to added="" be=""></to>				set(s						
	<to added="" be=""></to>				set(s						
	<to added="" be=""></to>				set(s						
A2. Assistive	White canes				set(s						
technologies and	Prescription ey	veglasses			set(s						
digital and non-	Handheld mag				set(s						
digital equipment					set(s						
	Book e-readers				set(s						
	Handheld scan	ners			set(s						
	Braille devices				set(s						
Introduction	1 Stakehold	der Engagement	Cost_G	ieneral Co	st_Visual	Cost_Hearing	g 🛛 Cost_Com 🕂 🗄	•			

Cost Estima	Cost Estimation									
Pillars	Resources	Must-have or good-to-have?	Available locally?	Functional offline?	(Quantity		Re	eplacement frequency (in years)	Needs maintenance? (Yes/No/Not
A. Digital devices,	tools, and hard	ware								
A1. ICT hardware	PCs				se	t(s)				
	Laptops	Must-have	Yes	Yes	1 se	t(s)		•	5	
	Tablets				se	t(s) Pe	er student			
	Mobile phones				se	t(s) ^{pe}	er school er district			
	Smartphones				se	t(s)pe	er region			
	Data plans				se	t(s) ^{pe}	er country			
	Screens					(3)				
	<to added="" be=""></to>					t(s)				
	<to added="" be=""></to>					t(s)				
	<to added="" be=""></to>					t(s)				
	<to added="" be=""></to>					t(s)				
A2. Assistive	White canes					t(s)				
technologies and	Prescription ey	/eglasses				t(s)				
digital and non-	Handheld mag	nifying glasses				t(s)				
digital equipment						t(s)				
	Book e-readers	3				t(s)				
	Handheld scan	ners				t(s)				
	Braille devices					t(s)				
Introduction	Stakabal	der Engagomont	Cost C	operal Co		· · · ·	et Hearing		Cast Com	
Introduction	Stakenon	der Engagement	Cost_G	eneral Co	st_Visual	CO	st_Hearing		Cost_Com 🕂 🕴	•

Cost Estimation									
Pillars	Resources	Must-have or good-to-have?	Available locally?	Functional offline?	Quantity		Replacement frequenc (in years)	Needs maintenance? (Yes/No/Not	
A. Digital devices,	tools, and hard	ware							
A1. ICT hardware	PCs				set(s)				
	Laptops	Must-have	Yes	Yes	1 set(s)	per student	5	Yes	
	Tablets				set(s)			Yes	
	Mobile phones				set(s)			No Not applicable	
	Smartphones				set(s)				
	Data plans				set(s)				
	Screens				set(s)				
	<to added="" be=""></to>				set(s)				
	<to added="" be=""></to>				set(s)				
	<to added="" be=""></to>				set(s)				
	<to added="" be=""></to>				set(s)				
A2. Assistive	White canes				set(s)				
technologies and	Prescription ey	reglasses			set(s)				
digital and non-	Handheld mag	nifying glasses			set(s)				
digital equipment	Vibrating wrist	: watches			set(s)				
	Book e-readers	;			set(s)				
	Handheld scan	ners			set(s)				
	Braille devices				set(s)				
Introduction	n Stakehold	der Engagement	Cost_G	eneral Co s	· · · ·	st_Hearing	Cost_Com 🕂 🗄	•	



A built-in list of recommended resources for each type of disability



High interactivity to accommodate the iterative process of designing the minimum package

High flexibility for various locations, scales, and education levels

Theme B: Data on learners with disabilities

QB_1. Is there a particular setting or population that you would like to equip with the TEDDIE minimum package? Please use Questions QB_1_1 to QB_1_5 to identify the setting or population that the cost estimates apply to.

QB_1_1. Country/economy Zambia

<Please choose the country/economy from the dropdown list>

QB_1_2. Are you interested in providing the TEDDIE minimum package for students with disabilities in the whole country, a region, a province/state, a city/municipality or a school?



Just a few clicks!

Cost Visual

Cost Hearing

Cos

QB_1_3. Which education level(s) would you like to target? For each education level you check, please specify the grade levels (or age groups) where students with disabilities will receive the TEDDIE minimum package.



QB_1_4. During which time period are you interested in providing the minimum package for students with disabilities?

<The tool can estimate costs not just for initial procurement, but also for additional years of maintenance and upkeep. How long would you like to estimate the costs to support this particular target population/setting (i.e. how many years)? We recommend you consider a 5-year plan.>



QB_1_5. What is a reasonable timeline to implement the TEDDIE intervention? How many schools/districts/regions will be served by TEDDIE in each year? <Each number in the table below should encompass schools/districts/regions that adopt TEDDIE in the given year, as well as those that adopted TEDDIE in prior years. The latter group will still require maintenance and resource replacement.>

Year	2024	2025	2026	2027	2028
Number of schools	100	100	100	100	100
Number of districts	20	20	20	20	20
Number of regions				1	1

Introduction Stakeholder Engagement Cost_General



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High interactivity to accommodate the iterative process of designing the minimum package

High flexibility for various locations, scales, and education levels

Prepopulated cost estimates to inform decision-making on intervention design, budgeting, and fundraising

Costing Tool for a Tech-EnableD Disability Inclusive Education (TEDDIE) Intervention

Context Neverland



Primary education (Grades 1-5)

Education levels

Who does TEDDIE serve?

Time period 2024 - 2028

	2024	2025	2026	2027	2028
Number of schools	100	100	100	100	100
Total number of students*	20,000	22,000	23,400	23,000	24,600
Number of students with disabilities	820	861	904	949	997
Difficulty seeing	150	158	165	174	182
Difficulty hearing	100	105	110	116	122
Difficulty communicating	200	210	221	232	243
Difficulty learning	110	116	121	127	134
Emotional and behavioral difficulty	230	242	254	266	280
Difficulty moving	30	32	33	35	36

Notes. Total number of students served in those schools include students with and without disabilities.

Total cost of the TEDDIE minimum package

	2024	2025	2026	2027	2028
Serving students with					
Difficulty seeing	244,800	10,332	11,378	12,502	72,347
Difficulty hearing	88,560	4,649	5,120	28,408	7,497
Difficulty communicating	97,580	26,648	29,373	32,361	35,781
Difficulty learning	24,600	1,292	1,422	1,563	1,750
Emotional and behavioral difficulty	76,260	23,807	26,242	28,914	31,957
Difficulty moving	77,900	4,090	4,504	4,949	5,543
Total for all types of disabilities	609,700	70,817	78,038	108,698	154,875
Emotional and behavioral difficulty Difficulty moving	76,260 77,900	23,807 4,090	26,242 4,504	28,914 4,949	31 5

Notes. The costs are in USD.

The cost estimates for each type of disability capture the costs of must-haves that serve students with that specific disability as well as students with all types of disabilities.

Average cost of the TEDDIE minimum package

	2024	2025	2026	2027	2028
Cost per school	6097	708	780	1087	1549
Cost per student with disabilities	744	82	86	115	155
Cost per student with					
Difficulty seeing	1,632	66	69	72	397
Difficulty hearing	886	44	46	245	62
Difficulty communicating	488	127	133	140	147
Difficulty learning	224	11	12	12	13
Emotional and behavioral difficulty	332	99	103	109	114
Difficulty moving	2,597	130	136	143	152
Cost per student with and without disabilities	30	3	3	5	6

Notes. The costs are in USD.

The cost estimates for each type of disability capture the costs of must-haves that serve students with that specific disability as well as students with all types of disabilities. The total cost of the TEDDIE minimum package was distributed among all students, both with and without disabilities, because every learner, including those without disabilities, will benefit from a more inclusive and tech-enabled environment.





Three takes-aways

Purposes

 For designing and costing out a TEDDIE minimum package with stakeholder engagement.

Usability

 Easy to use due to the built-in content and automated calculations.

Next steps

 Give it a try and share your thoughts with us.

Download the tool: https://drive.google.com/drive/folders/1GksbLXRLLFty2EYG18e6urUMQSs7_xtT