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FROM THE AMERICAN PEOPLE

The experience of Guatemala in the development and use of digital reading books

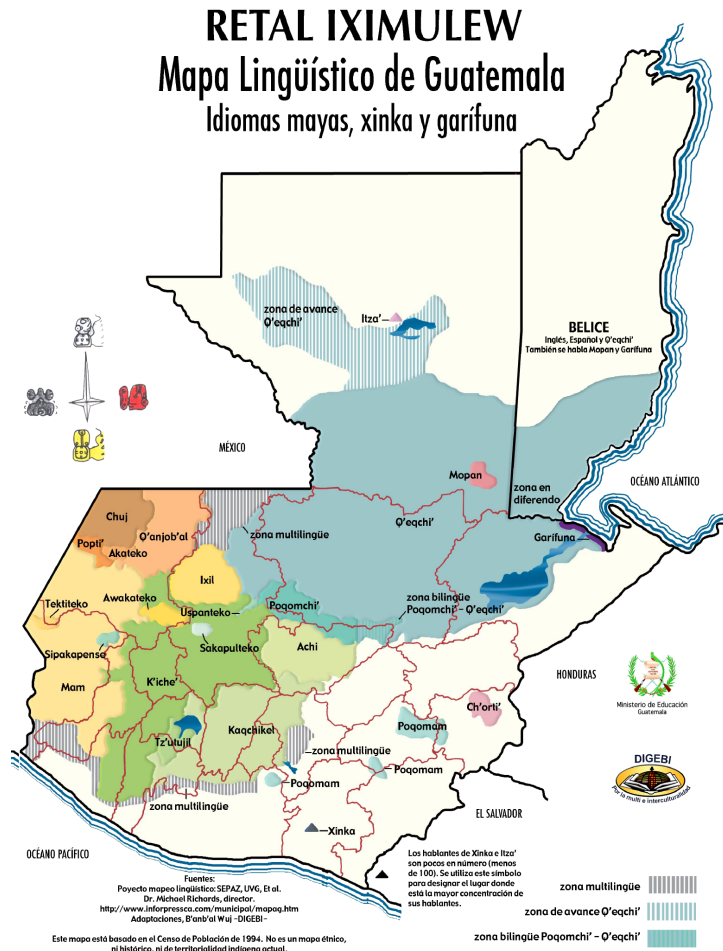


Sophia Maldonado Bode
Lifelong Learning Project

CIES, April 2020

2. America: The experience of Guatemala in the development and use of digital reading books. Sophia Maldonado, Lifelong Learning Project

Context



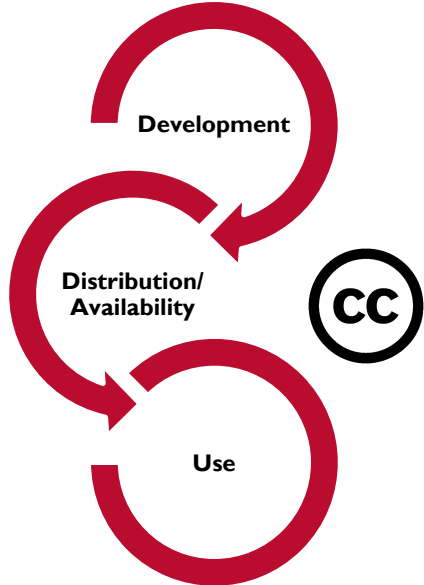
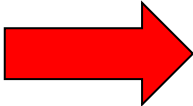
- 25 national languages
- 43.8% of the population is indigenous, and 46.15% live in rural areas*
- 22.6% indigenous /rural areas have not completed any educational level*
- 18.5% of the population is illiterate*
- Lack of resources for instruction in bilingual and intercultural contexts
- 21% of the population has access to computers, 29% to the Internet and 62% uses cellular phones*

* Source: INE, 2019₁₃

Model of Literacy in Bilingual and Intercultural Contexts



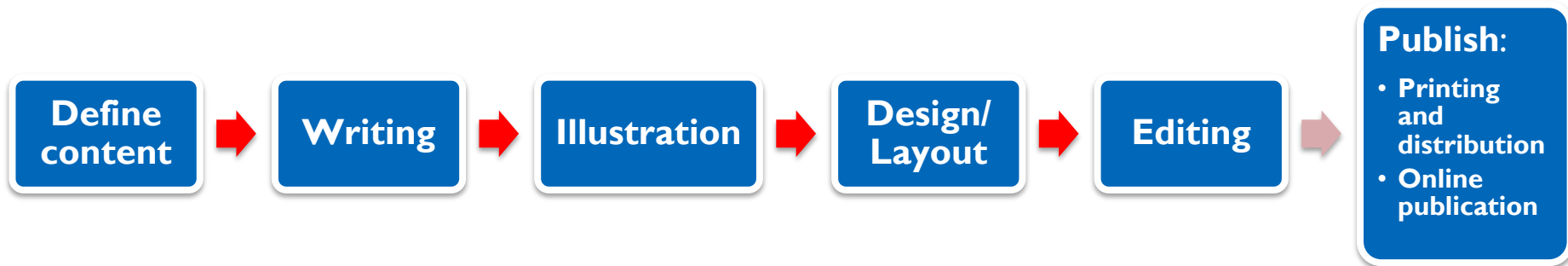
Access to Quality Educational Resources for Bilingual Contexts



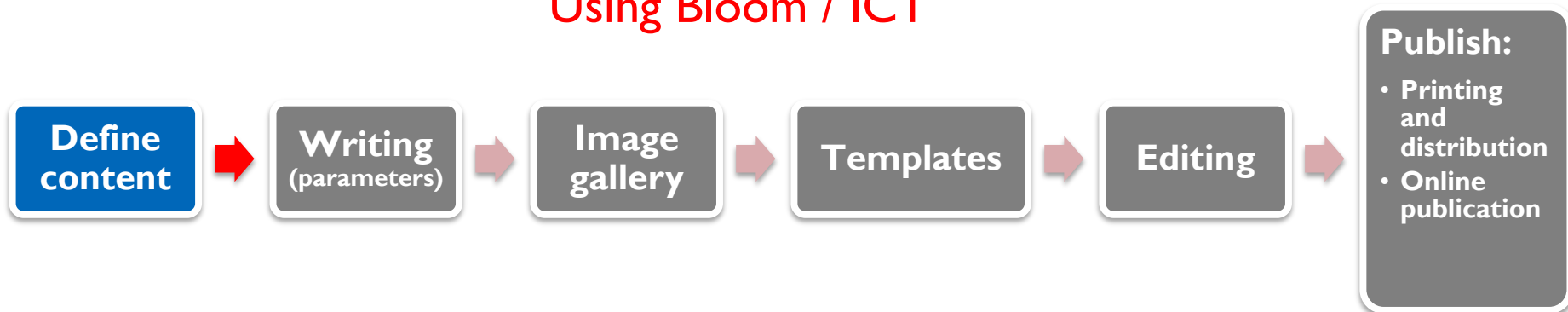
Development of reading books



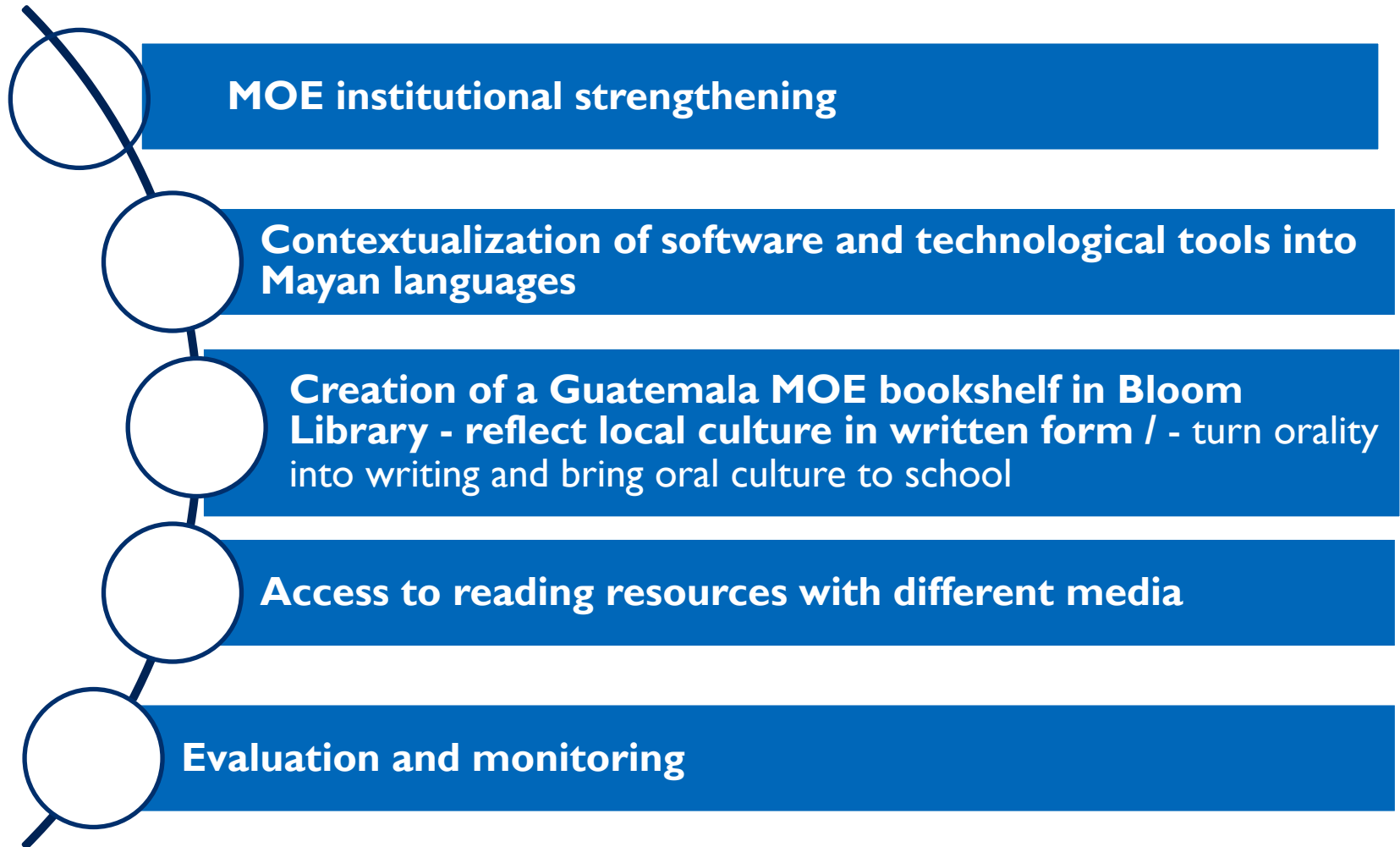
Traditional process



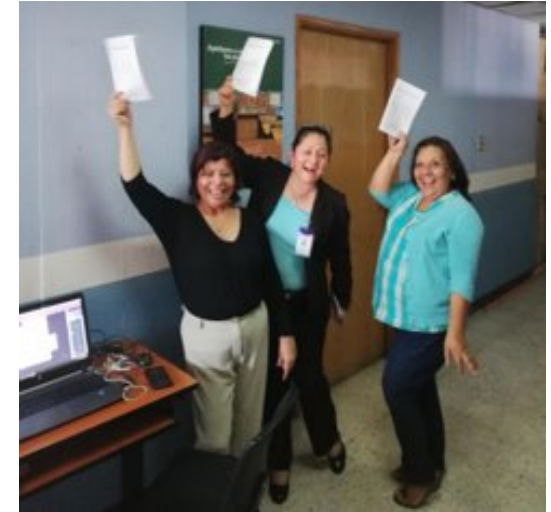
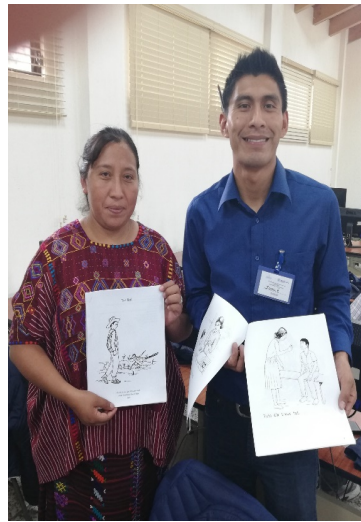
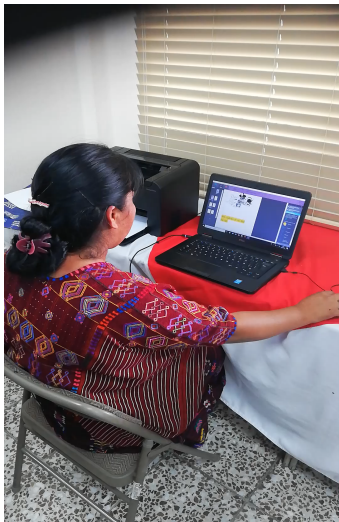
Using Bloom / ICT



Intervention



MOE institutional strengthening and human resource training

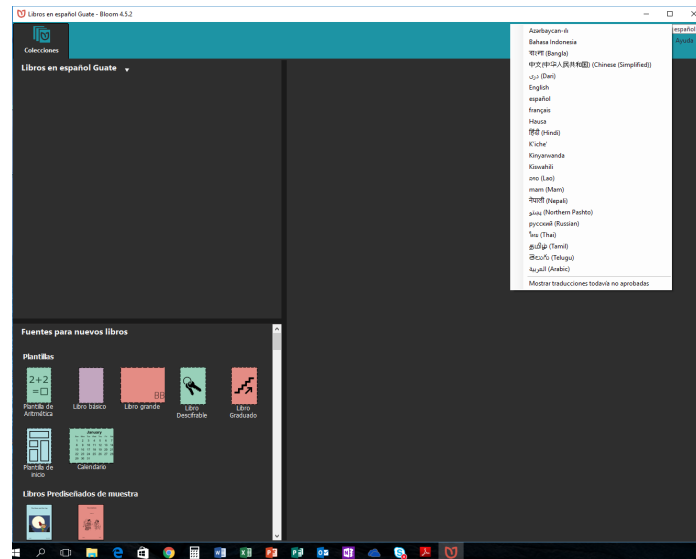


Develop and strengthening of local capacity for sustainable creation of quality, decodable and leveled reading books in national languages

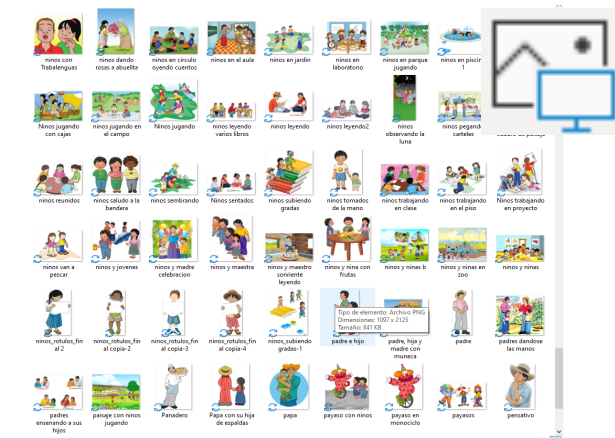
Contextualization of software and technological tools into Mayan languages

- Definition of criteria and parameters
- Templates: Mam, K'iche', Achi, Tz'utujil, Kaqchikel and Spanish.
- Keyboard installer to write in Mayan languages.
- Image gallery
- Bloom interface in K'iche' and Mam

Nivel	K'iche'
1	<p>Tanaj sik'in wuj PPA T'anaj e' da ma'ab'aj re' w'uch'al' t'ic'om'. Sik'in ta' ma'ab'aj 6 w'uch'al' ta' ma'ab'aj ch'ich'um wuj.</p>
2	<p>Tanaj re' sik'in wuj PPA T'anaj e' da ma'ab'aj re' w'uch'al' t'ic'om'. Sik'in w'uch'al' ta' ma'ab'aj ch'ich'um wuj. 6 w'uch'al' ta' ma'ab'aj ch'ich'um wuj.</p>
3	<p>Tanaj re' sik'in wuj PPA T'anaj re' da' ma'ab'aj: N'ah' e' w'uch'al'. K'ach' ch' ot'o' wuj. ta' ta' ma'ab'aj k'ach'um k'ach'um le' w'uch'al' ma'ab'aj re' sik'in wuj ma'ab'aj re' sik'in wuj.</p> <p>K'ib' w'uch'al':</p> <ul style="list-style-type: none">• Re'k'ach'um: m, n, o, t, u'.• Ma'ab'aj: ta' ma'ab'aj.• W'uch'al': re'.• Ma'ab'aj: ta' ma'ab'aj.• W'uch'al': re'.• Ma'ab'aj: ta' ma'ab'aj.• W'uch'al': re'.• Ma'ab'aj: ta' ma'ab'aj.• W'uch'al': re'.
4	<p>Tanaj re' sik'in wuj PPA T'anaj re' da' ma'ab'aj: N'ah' e' w'uch'al'. K'ach' ch' ot'o' wuj. ta' ta' ma'ab'aj k'ach'um k'ach'um le' w'uch'al' ma'ab'aj re' sik'in wuj ma'ab'aj re' sik'in wuj.</p> <p>K'ib' w'uch'al':</p> <ul style="list-style-type: none">• Re'k'ach'um: m, n, o, t, u'.• Ma'ab'aj: ta' ma'ab'aj.• W'uch'al': re'.• Ma'ab'aj: ta' ma'ab'aj.• W'uch'al': re'.• Ma'ab'aj: ta' ma'ab'aj.• W'uch'al': re'.• Ma'ab'aj: ta' ma'ab'aj.• W'uch'al': re'.
5	<p>Tanaj re' sik'in wuj PPA T'anaj re' da' ma'ab'aj: N'ah' e' w'uch'al'. K'ach' ch' ot'o' wuj. ta' ta' ma'ab'aj k'ach'um k'ach'um le' w'uch'al' ma'ab'aj re' sik'in wuj ma'ab'aj re' sik'in wuj.</p> <p>K'ib' w'uch'al':</p> <ul style="list-style-type: none">• Re'k'ach'um: m, n, o, t, u'.• Ma'ab'aj: ta' ma'ab'aj.• W'uch'al': re'.• Ma'ab'aj: ta' ma'ab'aj.• W'uch'al': re'.• Ma'ab'aj: ta' ma'ab'aj.• W'uch'al': re'.• Ma'ab'aj: ta' ma'ab'aj.• W'uch'al': re'.



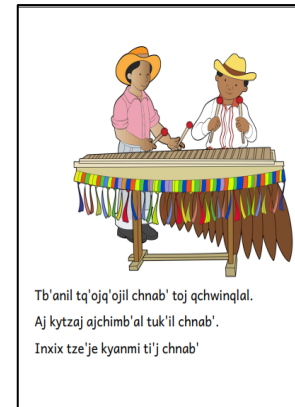
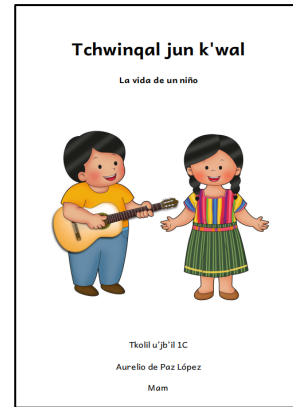
Vowels												
a	e	i	o	u								
[ə/a]	[e]	[i]	[o]	[u]								
Consonants												
b'	ch	ch'	h	j	k	k'	l	m	n	p	q	
[β]	[tʰ]	[tʰ]	[h]	[ç]	[kʰ]	[kʰ]	[l]	[m]	[n]	[pʰ]	[qʰ]	
q'	r	s	t	t'	tz	tz'	w	x	y	'		
[qʰ]	[r]	[s]	[tʰ]	[tʰ]	[tsʰ]	[tsʰ]	[w]	[x]	[j]	[ʔ]		



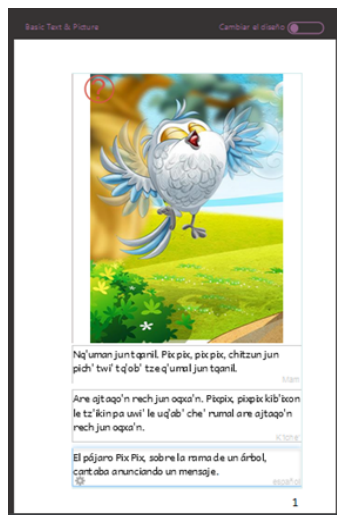
Creation of a Guatemala MOE bookshelf in Bloom Library



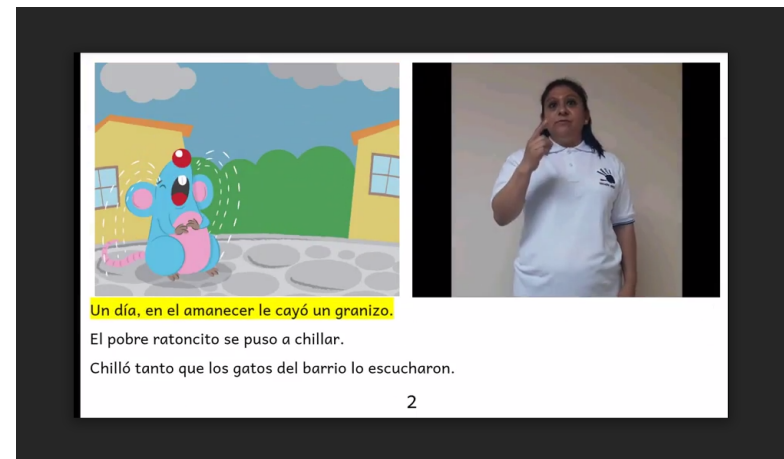
Books with different reading levels



Books in different national languages



Multilingual reading books

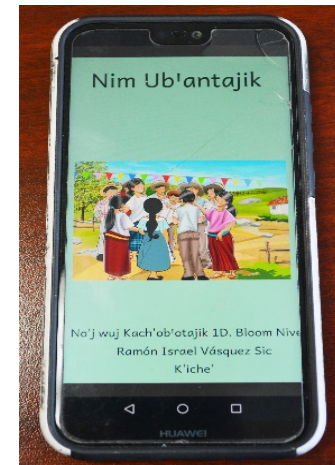
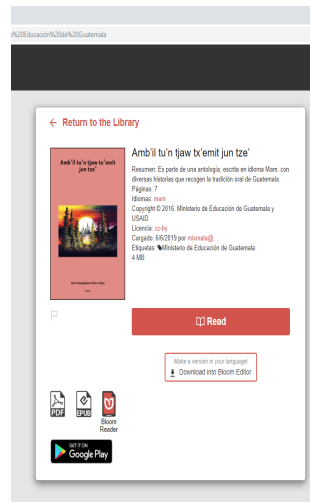
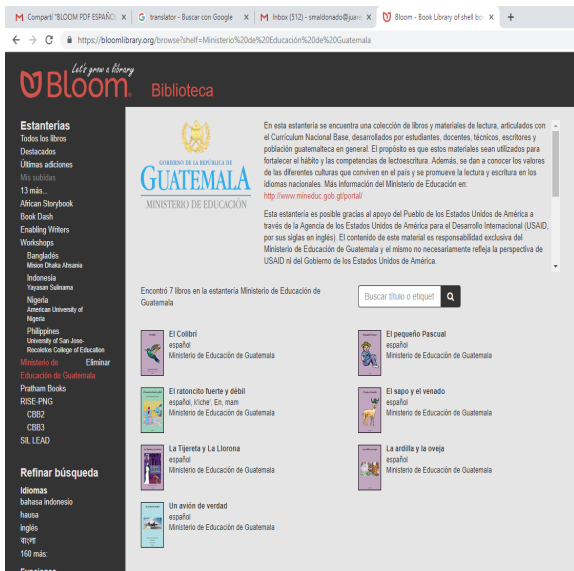


Example of accesible book

Access to quality reading resources with different media



Diverse low cost printing options



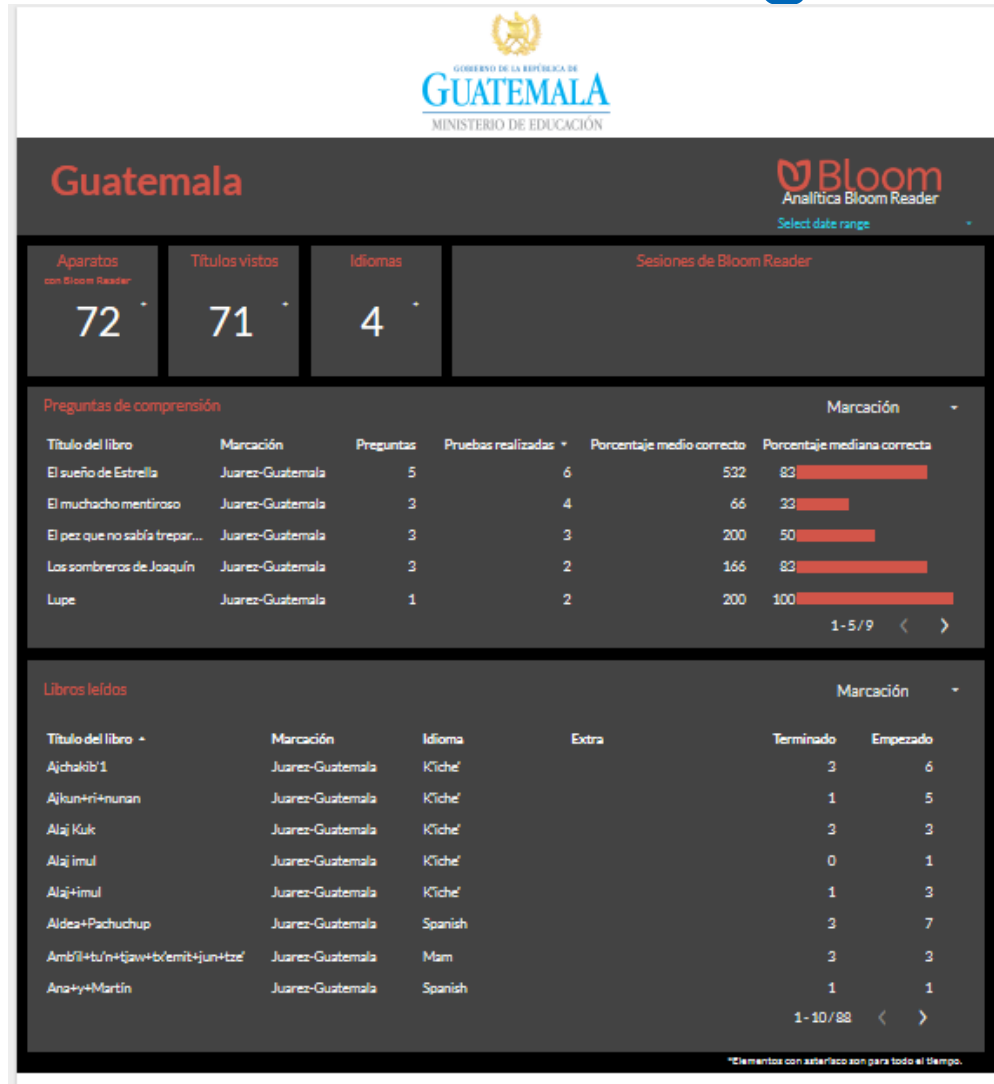
<https://bloomlibrary.org/browse?shelf=Ministerio%20de%20Educaci%C3%B3n%20de%20Guatemala>

PDF, Bloom Reader, E-Pub

Evaluation and monitoring



MoE Managers



Dashboard

Achievements

Curricular Policy incidence

Inclusive social development

Mayan language policy strengthening

Cost efficiency in the development and distribution of reading material

Challenges and lessons learned

1. Traditional paradigms in the process of production and editing of reading books are broken.
2. Ensure the quality of the reading materials, developed by people with less experience as writers.
3. This process requires time and adjustments according to the needs of the context and the languages.