Supplement 1 - Content Index Validation

Supplementary Table 1: Statistical analysis of the content index validation regarding the language clarity of the educational technology

Item / Expert	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12	E13	E14	E15	E16	E17	E18	E19	E20	E21	E22	*Endorsement	I-IVC
Cover	X	X	X	X	X	-	-	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	19	0.864
Cover Sheet	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	21	0.955
Technical	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Summary	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 6	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 7	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	20	0.909
Page 8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	20	0.909
Page 9	X	X	X	X	X	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	20	0.909
Page 10	X	X	-	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	20	0.909
Page 11	X	X	X	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	21	0.955
Page 12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 13	X	X	-	X	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	20	0.909
Page 14	X	X	X	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	21	0.955
Page 15	X	X	X	-	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	20	0.909
Page 16	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	21	0.955
Page 17	X	X	X	X	X	X	X	-	X	-	X	X	X	X	X	X	X	X	X	X	-	X	19	0.864
Page 18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	21	0.955
Page 19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 21	X	X	X	X	X	-	X	X	X	-	X	X	X	X	X	X	X	X	X	X	-	X	19	0.864
Page 22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	21	0.955
Page 24	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	21	0.955
Page 25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 29	X	X	X	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	20	0.909
Page 30	X	X	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	20	0.909
Final page	X	X	X	X	_	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	21	0.955
S-IVC/VME	1.000	1.000	0.867	0.967	0.933	0.733	0.900	0.933	1.000	0.933	1.000	1.000	1.000	1.000	1.000	0.967	1.000	1.000	1.000	1.000	0.700	0.967	Average I-IVC	0.950
																							S-IVC	0.950

Supplement Journal of Human Growth and Development 155k 6004-1282 printed version 4-155k 2175-5586 solite version 2

Supplementary Table 2: Statistical analysis of the content index validation regarding the practical pertinence of the educational technology

Item / Expert	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12	E13	E14	E15	E16	E17	E18	E19	E20	E21	E22	*Endorsement	I-IVC
Cover	X	X	X	X	X	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	20	0.909
Cover Sheet	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	21	0.955
Technical	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Summary	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 6	X	X	X	-	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	20	0.909
Page 7	X	X	X	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	21	0.955
Page 8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	21	0.955
Page 9	X	X	X	X	X	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	20	0.909
Page 10	X	X	X	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	21	0.955
Page 11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	21	0.955
Page 13	X	X	X	X	X	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	20	0.909
Page 14	X	X	X	X	X	-	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	20	0.909
Page 15	X	X	X	-	X	-	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	19	0.864
Page 16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	21	0.955
Page 18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	21	0.955
Page 19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 21	X	X	X	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	20	0.909
Page 22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	21	0.955
Page 26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	21	0.955
Page 29	X	X	X	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	20	0.909
Page 30	X	X	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	20	0.909
Final page	X	X	X	X	-	X	X	X	X	-	X	X	X	X	X	X	X	X	X	X	-	X	19	0.864
S-IVC/VME	1.000	1.000	1.000	0.933	0.933	0.667	0.900	0.933	1.000	0.967	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.667	0.967	Average I- IVC	0.953
																							S-IVC	0.953



Supplement Journal of Human Growth and Development SSN 8004-1232 printed version ALSSN 9105-1232 printed version CDH

Supplementary Table 3: Statistical analysis of the content index validation regarding the theoretical relevance of the educational technology

Item / Expert	E 1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12	E13	E14	E15	E16	E17	E18	E19	E20	E21	E22	*Endorsement	I-IVC
Cover Sheet	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	21	0.955
Page 6	X	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	20	0.909
Page 7	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	21	0.955
Page 8	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	-	20	0.909
Page 9	X	X	X	X	X	X	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	20	0.909
Page 10	X	X	X	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	21	0.955
Page 11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 12	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	-	X	20	0.909
Page 13	X	X	X	X	X	-	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	19	0.864
Page 14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 15	X	X	X	-	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	20	0.909
Page 16	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	21	0.955
Page 17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	21	0.955
Page 18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	21	0.955
Page 19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 21	X	X	X	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	20	0.909
Page 22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	21	0.955
Page 26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	1.000
Page 28	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X		X	20	0.909
S-IVC/VME	1.000	1.000	1.000	0.917	1.000	0.833	0.917	0.708	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.708	0.917	Average I-IVC	0.955
																							S-IVC	0.955



Supplement 2 – Educational Technology Elaboration

Supplementary Table 4: Comparison of the educational technology versions before and after the expert validation

Before Validation Post-Validation





Faculdade de Medicina da Universidade de São Paulo

COVID-19 descomplicada

para pacientes com câncer

1ª edição

São Paulo - SP 2021 Universidade de São Paulo Faculdade de Medicina

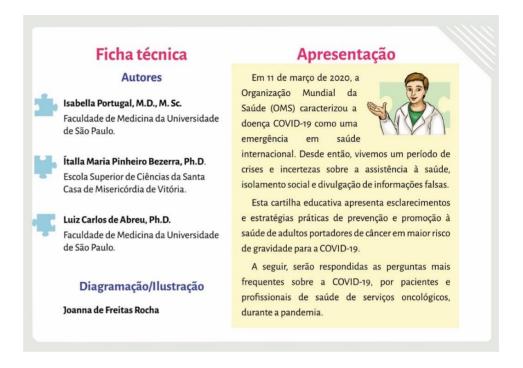
Descomplicando a COVID-19 para pessoas com câncer

Editora ISBN: DOI:

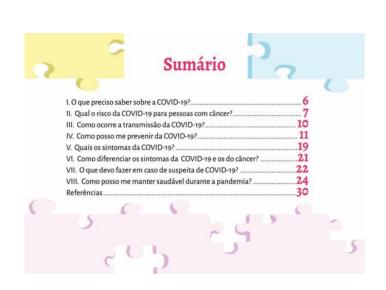
1ª edição

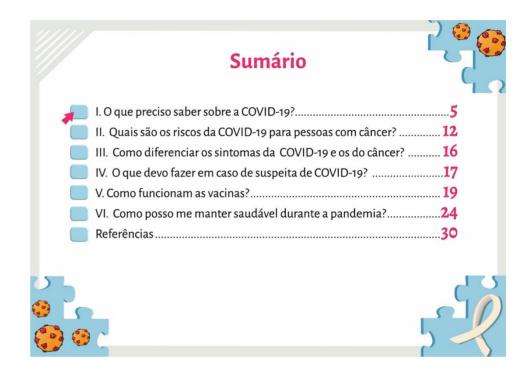
São Paulo - SP 2022



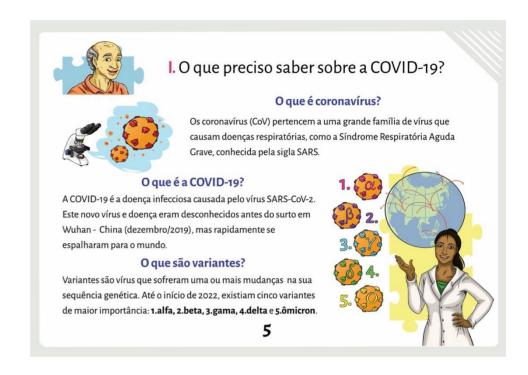


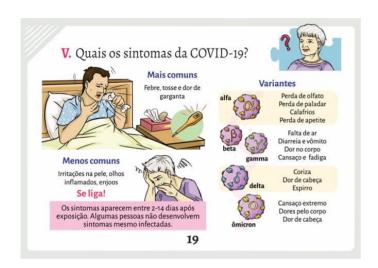


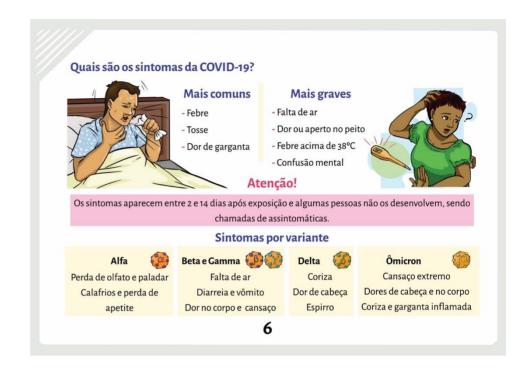


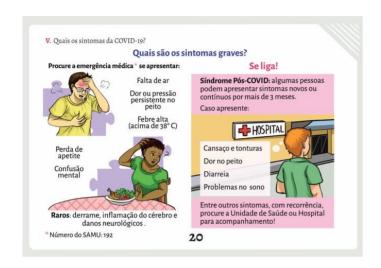


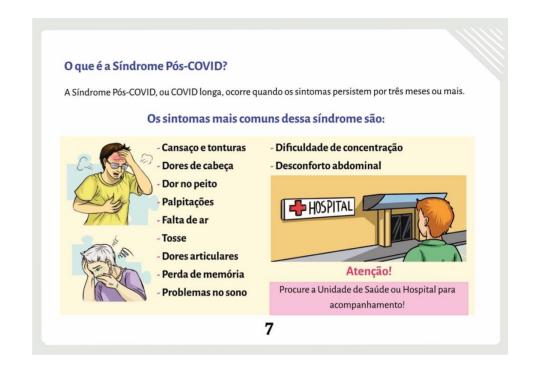




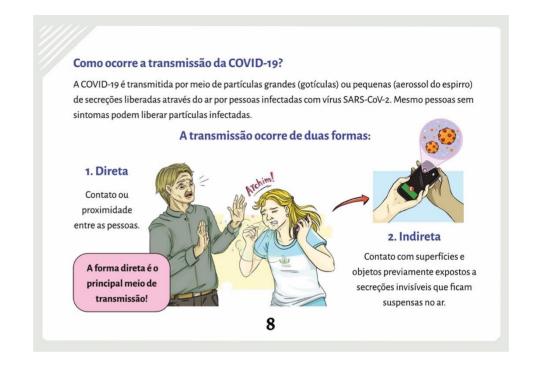




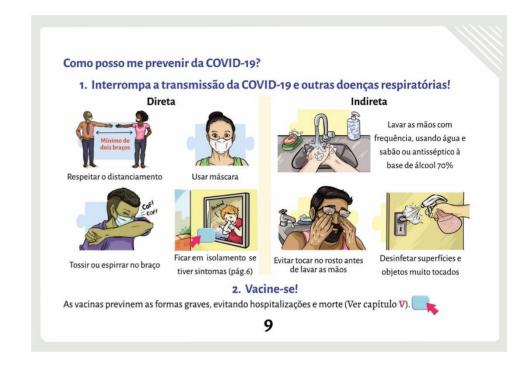










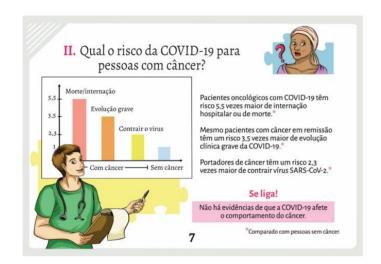


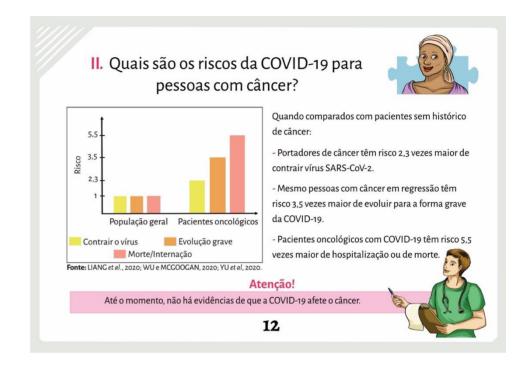






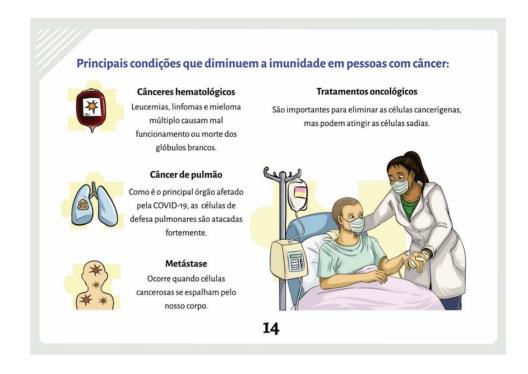




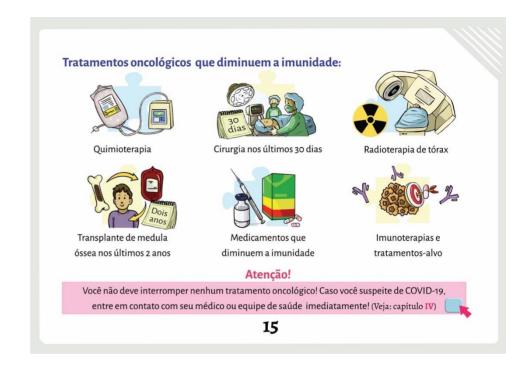


Por que a COVID-19 é mais grave em pessoas com câncer? O câncer e seus tratamentos diminuem as defesas do corpo. Por isso, quem descobriu ou tratou um câncer, nos últimos dois anos, geralmente está com a imunidade baixa. Vamos ver como isso ocorre: A defesa do corpo é feita 1. Destruição de células 2. Produção de anticorpos por células conhecidas cancerígenas ou anormais que neutralizam micróbios como glóbulos brancos, principalmente, de duas maneiras: Como o câncer diminui a imunidade? As células cancerígenas conseguem destruir ou despistar os glóbulos brancos, diretamente ou à distância, através de substâncias antiinflamatórias capazes de enfraquecer a resposta imunológica. Logo, quanto maior é o tamanho ou espalhamento do câncer, menor será a imunidade do paciente. 13











III. Como diferenciar os sintomas da COVID-19 e os do câncer?



O câncer e seus tratamentos possuem sintomas parecidos com a COVID-19. Vamos conhecer algumas diferenças!

Sintomas	COVID-19	Câncer	Quimioterapia	Radioterapia
Febre	SIM	NÃO(1)	NÃO	NÃO
Tosse	SIM	NÃO(2)	NÃO(3)	NÃO(4)
Dor de Garganta	SIM	NÃO(2)	NÃO(3)	NÃO(5)
Fadiga	SIM	SIM	SIM	SIM

(1) Possível em leucemias, linfomas e mieloma múltiplo; (2) Possível em cânceres de pulmão, garganta, tireoide, timo, neuroendócrino e linfoma não-Hodgkin; (3) Se causar inflamação de mucosas; (4) Exceto radioterapia de tórax; (5) Exceto radioterapia de cabeça ou pescoço.

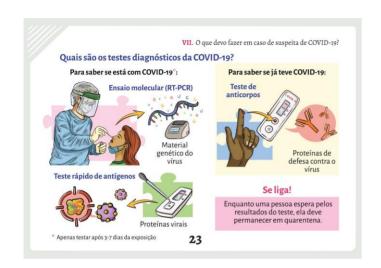
Atenção!

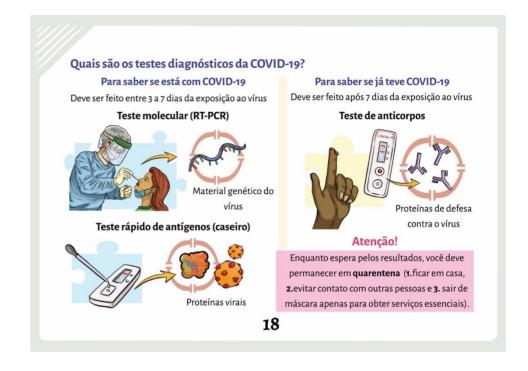
Devido à variedade de sintomas dos cânceres e seus tratamentos, a melhor forma de confirmar a COVID-19 é através de testes diagnósticos (pág. 18).

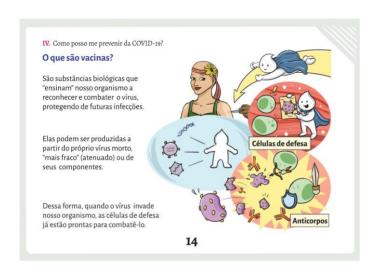
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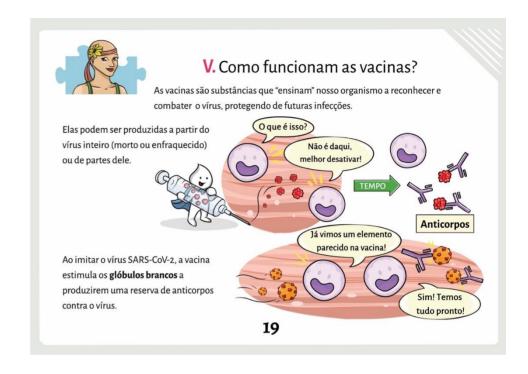


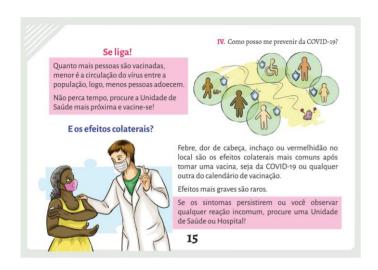


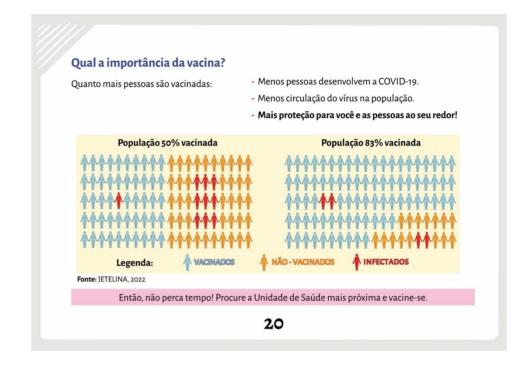


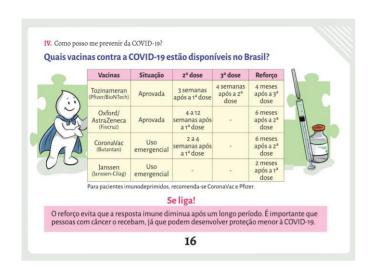


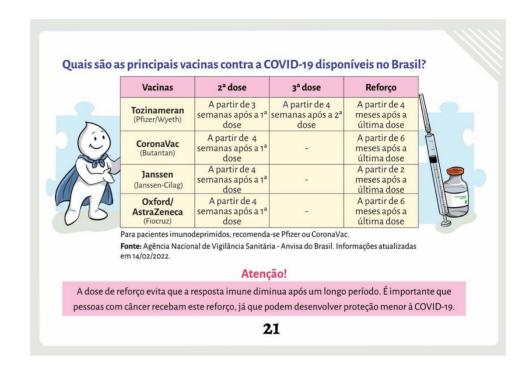


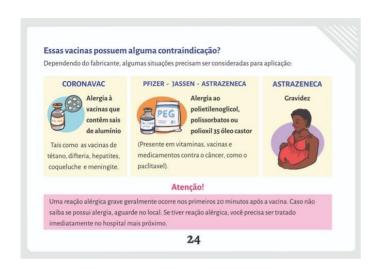


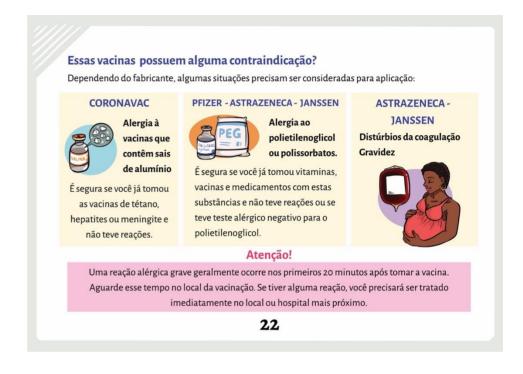


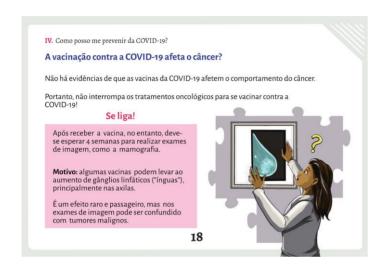














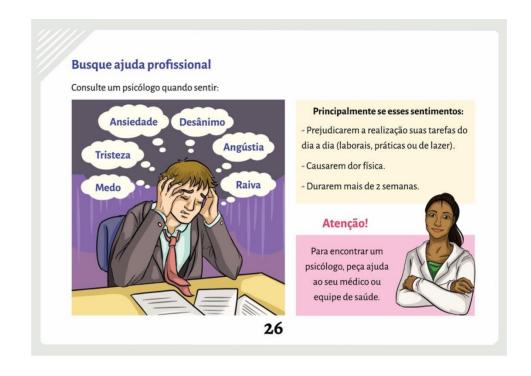




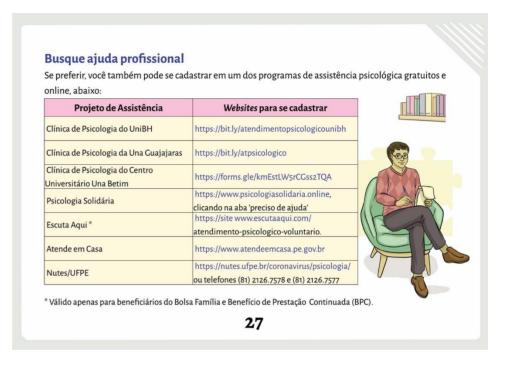


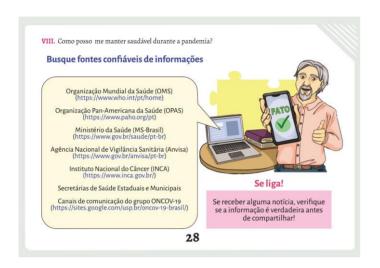


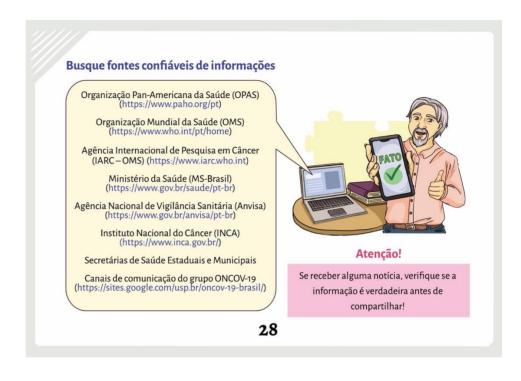
















Referências

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Supplement 3 – Cancer Patients Information-Seeking Behavior

Supplementary Table 5: Response of cancer patients on what information they would like to receive regarding COVID-19

Patients	Description
Patient 1	About the third dose.
Patient 2	Prevention and which attitudes to be taken in case of contamination.
Patient 3	At what time to seek medical attention if you suspect COVID-19?
Patient 4	Everything.
Patient 5	Preventive attitudes.
Patient 6	Side effects, treatment, immunization.
Patient 7	All necessary.
Patient 8	Long-term losses.
Patient 9	All possible information.
Patient 10	Very similar symptoms.
Patient 11	Contamination and hospitalization rate.
Patient 12	All possible.
Patient 13	If it really has a specific relationship between COVID-19 and cancer.
Patient 15	What problems may occur?
Patient 16	The ones you have!!!
Patient 17	All.
Patient 18	All possible information.
Patient 19	What COVID-19 can cause in cancer patients.
Patient 20	If my cancer can progress because of the effects of the virus. And if all the different symptoms
	I feel today are because of COVID-19.
Patient 21	I would like to know the effects on us and how this disease can behave before it.
Patient 22	Importance of correct nutrition and physical activity in both diseases.
Patient 24	About returning to physical activities.
Patient 25	I don't have anything to ask. The clinic I go to takes care of everything.
Patient 26	I don't know; I don't know.
Patient 27	None.
Patient 28	All possible information.
Patient 29	All.
Patient 30	The truth.
Patient 31	All information. Therefore, concerning COVID-19 in people with cancer, what is reported.
Patient 32	I took Janssen's vaccine. However, I did the immunity test, which was inconclusive (30%).
	I wonder if, with this result, I can develop a severe case if I take COVID-19.

Suggested citation: Portugal I, Bezerra IMP, Daboin BEG, Zucoloto HZ, Alves SAA, Siqueira CEG, Abreu LC. MeTA-Edu: a new methodology for enhancing validation of health education technologies applied to COVID-19 prevention in adults with cancer. J Hum Growth Dev. 2023; 33(1):84-94. DOI: http://doi.org/10.36311/jhgd.v33.13830



Patients	Description
Patient 33	Correct information.
Patient 34	About immunity.
Patient 35	Regarding the treatment. I'd like to know everything.
Patient 36	All possible information.
Patient 37	If it is easier to catch the disease and how the disease affects cancer patients.
Patient 38	If we have anything else to do besides what's in the media.
Patient 39	All.
Patient 40	Life chances if you get COVID-19.
Patient 41	All.
Patient 42	What are the additional care and symptoms provided?
Patient 43	If there is a higher risk of developing the severe form of the disease. If low neutrophil
	immunity affects.
Patient 44	I'll google it.
Patient 45	Everyone.
Patient 46	How is the process of aggravating COVID-19?
Patient 47	Side effects and sequelae.
Patient 48	All possible information.
Patient 49	Statistics.
Patient 50	What if it is given to me can complicate it more? (Aggravating factors)
Patient 51	Can someone die more quickly by getting COVID-19?
Patient 52	Home care.
Patient 53	What sequelae can an oncological patient have?
Patient 54	If we have priority in care and treatments.
Patient 55	All possible information.
Patient 56	I'd like to get more tips on how to prevent yourself in the hospital.
Patient 57	About the sequels to COVID-19.
Patient 58	About vaccine efficacy.
Patient 59	All.
Patient 60	What is the survival percentage of an oncologic patient?
Patient 61	None.
Patient 62	None.
Patient 63	If there are risks for patients on radiotherapy.
Patient 64	All.
Patient 65	What effects could come if we have COVID-19?
Patient 66	All possible information because I take great care of myself.
Patient 67	Statistics.



Patients	Description
Patient 68	If we have the right to a dignified hospitalization.
Patient 69	What's the best vaccine?
Patient 70	All possible information. For example, I ran after it to vaccinate because I knew we were vulnerable.
Patient 71	All information is welcome.
Patient 72	The newest information to help me and others.
Patient 74	I'd like to know as much information as possible.
Patient 75	If it manifests itself more severely.
Patient 76	None, because I always update myself with the professionals I can access.
Patient 77	After vaccination.
Patient 78	I do not wish for any.
Patient 79	None.
Patient 80	The major impacts and how to improve the quality of life.
Patient 81	Updates!!!
Patient 82	If people are managing to continue treatment because everything was being canceled due
- -	to COVID-19 and many people were being harmed in their treatments because of this.
Patient 84	All.
Patient 85	All.
Patient 86	What sequelae the person with cancer may have if they get the virus.
Patient 87	It's interesting to know if there were people who passed away and how severely affected they
	were. It would have to be discussed more!
Patient 88	Medicines and new treatments.
Patient 89	Why will immunosuppressed patients need a fourth dose? Does the vaccine not have the
	same efficacy in this group?
Patient 90	None.
Patient 91	More preventive attitudes.
Patient 92	All possible information.
Patient 93	Effects.
Patient 94	Feeding.
Patient 95	Attention.
Patient 96	Impact of coronavirus on the brain.
Patient 97	I didn't get much.
Patient 98	All.
Patient 99	That this disease is under control.
Patient 100	All.
Patient 101	All possible information.



Patients	Description
Patient 102	None for now.
Patient 103	Preventive attitudes.
Patient 104	About vaccine efficacy and positive tests.
Patient 105	Because even after being vaccinated. I get the flu every 15 days since I had cancer and
	COVID-19.
Patient 106	Everyone.
Patient 107	If it causes a lot of pain
Patient 108	What are the chances of a cure???
Patient 109	Severity.
Patient 110	The effects on people with cancer.
Patient 112	For example, I wonder if sequelae in cancer patients may be more present and frequent.

Supplementary Table 6: Perception of health professionals about the most frequent health information queries of cancer patients

Topics	Patient Queries			
-	n	%		
Use mask	11	9.82		
Cover your mouth when coughing	4	3.57		
Wash hands for 30 seconds	2	1.79		
Avoid traveling or leaving	28	25.00		
Ventilate environments two times a day	5	4.46		
Social distancing	14	12.50		
Stay home for 3 to 4 days if you suspect to be sick	7	6.25		
Avoid agglomerations	5	4.46		
Use alcohol on your hands	5	4.46		
Avoid hospitals and clinics	37	33.04		
Avoid visits to public places	14	12.50		
Avoid going to meetings physically	15	13.39		
Social distance of "two arms."	10	8.93		
Avoid using public transport	24	21.43		
Maintain a social distance of two meters	10	8.93		
Consume healthy foods	7	6.25		
Disinfect objects multiple times	12	10.71		
Avoid touching eyes. nose. and mouth	3	2.68		
Disinfect the cell phone	11	9.82		
COVID-19 prophylaxis	21	18.75		
Vaccination	13	11.61		
Use of Ivermectin	42	37.50		
Use of antibiotics	35	31.25		
Effects of COVID-19 on cancer	21	18.75		
Effects of COVID-19 on cancer treatment	19	16.96		
COVID-19 treatment	27	24.11		
COVID-19 transmission	25	22.32		
Symptoms of COVID-19	9	8.04		
Pathogenesis of cancer	13	11.61		
Signs and Symptoms of cancer	6	5.36		
Cancer prognosis	8	7.14		



Topics	Patient Queries			
	n	%		
Cancer treatment	6	5.36		
Cancer diagnosis	9	8.04		
COVID-19 diagnosis	13	11.61		
How to proceed if you suspect to have COVID-19	15	13.39		
How to proceed in non-COVID-19-related medical emergencies	9	8.04		
Cancer risk factors	7	6.25		
How to proceed in COVID-19 medical urgencies	16	14.29		

Supplement 4 – Metalinguistic Thematic Analysis for Educational Technologies

Supplementary Table 7: Analysis of expert proposals for pre-textual elements of the educational technology

EXPERT	PROPOSITION	TYPE	FUNCTION	DECISION	JUSTIFICATION
F.6	Maybe inserting a patient into the figure by putting	Visual	PP		
20	some piece.	V IS GG I			
	I think the design could also be modified. In addition to			_	
г 7а	the virus design, putting people who draw attention by	Vienel	DD	Aggented	
E/	being in cancer treatment. It seemed to me that there	visuai	rr	Accepted	
	are only professionals in the picture.				
E12	It failed to represent the individual who will use the	Visual	pp	_	
	booklet.	Visuai	11		
E7 ^b	The title can be modified, removing the "uncomplicated" and leaving "To be with cancer and live with COVID-19".	Writing	PP	Rejected	Replacing a word with a phrase differs from the recommendation to use short titles and contractions (<i>Plain Language Act.</i> 2010). Therefore, the adapted title was: "Uncomplicating COVID-19 for people with cancer."
E15	Increase the font size.	Visual	LC	Accepted	
E17	I do not think a puzzle explains the matter.	Visual	LC	Rejected	The puzzle connotes the process of knowledge construction by clarifying doubts about the subject addressed. Thus, pieces are added on each page,
	E7a E12 E7b	E6 Maybe inserting a patient into the figure by putting some piece. I think the design could also be modified. In addition to the virus design, putting people who draw attention by being in cancer treatment. It seemed to me that there are only professionals in the picture. E12 It failed to represent the individual who will use the booklet. The title can be modified, removing the "uncomplicated" and leaving "To be with cancer and live with COVID-19". E15 Increase the font size.	E6 Maybe inserting a patient into the figure by putting some piece. I think the design could also be modified. In addition to the virus design, putting people who draw attention by being in cancer treatment. It seemed to me that there are only professionals in the picture. E12 It failed to represent the individual who will use the booklet. Visual The title can be modified, removing the "uncomplicated" E7b and leaving "To be with cancer and live with COVID-19". Writing 19". Visual	E6 Maybe inserting a patient into the figure by putting some piece. I think the design could also be modified. In addition to the virus design, putting people who draw attention by being in cancer treatment. It seemed to me that there are only professionals in the picture. E12 It failed to represent the individual who will use the booklet. Visual PP The title can be modified, removing the "uncomplicated" E7b and leaving "To be with cancer and live with COVID-19". E15 Increase the font size. Visual LC	E6 Maybe inserting a patient into the figure by putting some piece. I think the design could also be modified. In addition to the virus design, putting people who draw attention by being in cancer treatment. It seemed to me that there are only professionals in the picture. E12 It failed to represent the individual who will use the booklet. The title can be modified, removing the "uncomplicated" E7 ^b and leaving "To be with cancer and live with COVID- Writing PP Rejected 19". E15 Increase the font size. Visual LC Accepted



ITEM	EXPERT	PROPOSITION	TYPE	FUNCTION	DECISION	JUSTIFICATION
	E20 ^a	I have not seen a reason for only the "C" of the word "COVID" to differ from the other letters.	Visual	LC	Accepted	
	E20 ^b	I'd also remove that white path by binding the virus cells.	Visual	LC	Accepted	
Cover Sheet	E18	Perhaps a less romanticized image draws better attention to the problem.	Visual	LC	Rejected	No romanticized features were recognized on the cover page.
Technical	E20	USP is abbreviated. I think the full name could be inserted in the technical sheet and then USP. I also think I could insert the acronym EMESCAM.	Writing	TR	Accepted	
	E7	I just do not know if the picture of the puzzle is representative. Wouldn't be better the virus' image itself?	Visual	TR	Rejected	The puzzle is representative of the pedagogical process and title. Therefore, figures of the virus were added to those of the puzzle.
Summary	E12	The order should be I, III, IV, V, II.	Mixed	PP	Rejected	A new order was adopted to accommodate all the modifications made.
	E18	I draw attention to clarifying the characteristics of the target audience.	Writing	LC	Accepted	A presentation text has been added in which the target audience is clarified.
	E20	I would keep the same format for all letters, varying only the colors.	Visual	LC	Accepted	

Apr.: Language Clarity (LC); Theoretical Relevance (TR); Practical Pertinence (PP).

^a First fragment of a multiple proposition; ^b second fragment of a multiple proposition.

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Supplementary Table 8: Analysis of expert proposals for textual elements of the educational technology

ITEM	EXPERT	PROPOSITION	TYPE	FUNCTION	DECISION	JUSTIFICATION
		I believe that the figure representing the patient can				
	E4	be more positive. This presents a slightly debilitated	Visual	PP		
		and afraid individual.				
	E6	Change the figure that represents the patient.	Visual	PP	-	
	LU	Maybe, some that show he is taking the information.	visuai	ГГ		
		I suggest the patient has a youthful image to give			-	
		the idea that cancer can reach any age group. In the	Visual		Accepted	
	E7ª	image, it seems that the person is weakened, and not		PP		
Dogo (always the person with cancer has this weakened and				
Page 6		sad image.				
	E11	Swap the image of the older and sad person for	Visual	PP	-	
		another image. Example: Someone curious.	visuai	11		
	E12	The cancer patient's image is very bad.	Visual	PP	=	
	E7 ^b	I also suggest that the professional has her hair	Visual	PP	Accepted	
	L/	stuck.	Visuai	11		
		I think you have repeated information from the first				
	E20	question. I suggest removing the second paragraph	Writing	LC	Accepted	
		from the first question or rewriting it.				
Page 7	E3ª	I suggest including a reference to the statistical data	Writing	TR	Accepted	
1 age /	ĽĴ	in the figure above.	wiining	IX		

ITEM	EXPERT	PROPOSITION	TYPE	FUNCTION	DECISION	JUSTIFICATION
	E3 ^b	What about the vaccinated? [] It would be interesting to show/highlight this important	Mixed	TR	Accepted	A subtopic has been created on Page 20
	E3	difference.	Mixed	TK	Accepted	of the final version.
	E5	Although "Call!" is informal, I don't think it is appropriate.	Writing	CS	Accepted	
	E6	The graph shows no comparison. I would remove the part "without cancer."	Visual	LC		
	E8	Perhaps the graph is difficult to understand by the general population.	Visual	LC	-	The graph was restructured to show the comparison of risk between cancer patients and the general population.
	E10	I have doubts about whether the graph's comparison is clear.	Visual	LC	Accepted	
	E20	In the chart, "with cancer" and "without cancer" appears but cannot be distinguished. I suggest restructuring it.	Visual	LC		
	E7	I suggest replacing "remission" with another word the patient can understand better.	Writing	LC	Accepted	
	E11	The image of the woman with a headscarf can be replaced. The current one conveys panic and insecurity.	Visual	PP	Accepted	
	E7	Just ponytail the healthcare professional's hair.	Visual	PP	Accepted	
Page 8	E8	Perhaps, after the first question, it should explain what causes low immunity, not risk factors.	Mixed	TR	Accepted	A subtopic has been created on Page 13 of the final version.
	E10	The last factor: "Some treatments" is too vague.	Writing	LC	Accepted	

ITEM	EXPERT	PROPOSITION	TYPE	FUNCTION	DECISION	JUSTIFICATION
		The first paragraph, where the question from the				
	E15	previous page is repeated, was confused with two	Writing	LC	Accepted	
		questions in a row.				
		Question 8 is like 9, leaving the reader confused. I				As treatments are also mentioned in this
	E11	suggest improving the writing: Major types of cancer	Writing	LC	Rejected	section, the term "Main conditions"
		that lower immunity.				was used.
	Ε.(The image is very polluted. I would decrease the	V.:1	I.C.	A	
	E6	number of images.	Visual	LC	Accepted	
		In my opinion, the figures do not answer the				
	E7	question: "What is the risk of COVID in a person	Visual	LC	Accepted	
		with cancer?" I suggest reviewing it.				
Page 9	E8	The northing questions are in small font.	Visual	LC	Accepted	
		I suggest inserting the text "do not interrupt				
	E11	treatment" in "Turn on," complementing the	Writing	PP	Accepted	
		message on the pink board.				
	F20	I thought the answers to the question were not so	13 7			
	E20	clear.	Writing	LC	Accepted	
		Check whether the writing expression "through				
D 10	E3	particles" would be more appropriate in place of	Writing	LC	Accepted	
Page 10		"through particles."				
	E6	Emphasize direct transmission.	Mixed	PP	Accepted	
Do co 11	E2	Instead of "Stay at home," "isolation" would be	Waitin	I.C.	A	
Page 11	E3	better.	Writing	LC	Accepted	

ITEM	EXPERT	PROPOSITION	TYPE	FUNCTION	DECISION	JUSTIFICATION
		Remove the question mark near the boy with glasses				
	E6	because it may suggest doubt about taking the	Visual	LC	Accepted	
		vaccine.				
		I would replace the vaccinator with a woman,				We cought to minimize the named vation
	E7	considering nursing is an eminently feminine	Visual	CS	Rejected	We sought to minimize the reproduction
		profession.				of sociodemographic biases.
		I think the vaccine needs to be highlighted and stay				Charter Was the final version was
	E11	on a single page with information that motivates	Mixed	PP	Accepted	Chapter V of the final version was
		people to seek vaccination.				created.
	E8ª	There is no pattern in the font used in the questions		LC	Accepted	
		on this page. They are too small and without a	Visual			
Do co 12		highlight.				
Page 12	E8 ^b	I suggest changing the word "vague" to "empty." It is	1	LC	Accepted	
	E8°	more colloquial.	Writing	LC		
	E20	I suggest leaving just one question.	Writing	LC	Accepted	
		Is this number of times for opening the window				Yes, it is. It complies with the WHO
	E3	available in the literature? It is better just saying to	Writing	PP	Rejected	recommendations (2022). In addition,
	E3	keep the locations. If possible, with natural	wrung	rr	Rejected	describing clear and specific actions
Do co 12		ventilation. For example: "keep windows open."				favors behavior change.
Page 13		When talking about hand washing, emphasize that it	Mixed	PP	Accepted	
	E6	is rubbing with soap.	Mixeu	rr	Accepted	
	E6	Leaving the tap open for 30 seconds is wasting	Mixed	TR	Aggentad	
		water.	wiixed	1K	Accepted	



ITEM	EXPERT	PROPOSITION	TYPE	FUNCTION	DECISION	JUSTIFICATION
	E7ª	Better sort each piece of information.	Mixed	LC	Accepted	
	E7 ^b	Split the information into two pages.	Mixed	LC	Rejected	The information was reorganized
	E/	spin the information thio two pages.	Mixeu	LC	Rejected	without having to split the page.
	E7°	In the figure, show the person washing his hands,	Visual	PP	Accepted	
	E/	discarding the mask and cleaning surfaces.	Visuai	PP	Accepted	
	E8 ^a	The question is small and unhighlighted.	Visual	LC	Accepted	
	E8 ^b	If we are supposed to separate the clothes from the	Visual	PP	Accepted	
	Lo	mask, they shouldn't appear in the drawing together.	visuai	11	Accepted	
	E6	I don't think the figures represent the text.	Visual	LC	Accepted	
	E8	I found this drawing confusing.	Visual	LC	- Accepted	
	E10	I think you should emphasize more clearly the	Visual	PP	Accepted	
Page 14		importance of the vaccine.				
	E11	Place this next to the page on prevention measures.	Mixed	LC	Accepted	
	E15	In the third paragraph, after "defense cells,"	Writing	TR	Rejected	White blood cells were used as a
	E13	include ''antibodies.''	wiining	IK	Rejected	synonym for defense cells.
	 E4	I believe the topic may have a subtopic: "What are	Writing	TR	Accepted	The subtopic was created on Page 23 of
	124	the side effects/reactions of the vaccine?"	wiining	IK	Accepted	the final version.
Dogo 15		I think the question is inappropriate. Perhaps,				The subtonic was areated on Page 20 of
Page 15	E6 ^a	replace it with: "What is the importance of the	Writing	LC	Accepted	The subtopic was created on Page 20 of the final version.
		vaccine?"				the iniai version.
	E6 ^b	I didn't understand the figure of the dolls either.	Visual	LC	Accepted	



ITEM	EXPERT	PROPOSITION	TYPE	FUNCTION	DECISION	JUSTIFICATION
		I do not know if the figure is clear for people to				
	E7	understand: the more people vaccinated. the lower	Visual	LC	Accepted	
		the virus circulation.				
	E8	The question about the side effects should appear just	Writing	LC	Accepted	
	Eo	above the answer.	witting	LC	Accepted	
Page 16	E8	I think this information is excessive, perhaps	Mixed	LC	Accepted	
		simplifying the picture.				
		I think you need to strengthen vaccination among	Mixed	PP	Rejected -	It is relevant to provide information on
	E8ª	pregnant women. I would replace this page with				the serious adverse effects on pregnant
		content encouraging vaccines for pregnant women.				women because it involves the ethical
Page 17		The way it is, it can increase their resistance []				aspects of protecting the mother's life
	E8 ^b	[] I do not know if this information is relevant.	Mixad	Mixed TR		(being able) and the fetus (being
			Mixeu			vulnerable).
	E12	Review the text in parentheses "(Tetanus)."	Writing	LC	Accepted	
	E8	I would increase the font size.	Visual	LC	Accepted	
Page 18	E10	Be clearer about the importance of the vaccine.	Writing	LC	Accepted	
	E11	The image is not clear with the content.	Visual	LC	Accepted	
Page 19	E8	There are two white men: watch out for gender and	Visual	CS	Accepted	
		ethnic diversity .				
	E18	I think this page should come before approaching the	Mixed	LC	Accepted	
		vaccine topic.				
Page 20	E7	Divides this information into two pages.	Mixed	LC	Accepted	

ITEM	EXPERT	PROPOSITION	TYPE	FUNCTION	DECISION	JUSTIFICATION
	E18	I think this page should come before approaching the vaccine topic.	Mixed	LC	Accepted	
	E6	This part is very complicated because the symptoms can overlap. I would take this part off.	Mixed	LC	Rejected	This is one of the main doubts reported by cancer patients.
Page 21	E7	I could not read the footer of the board.	Visual	LC	Accepted	
1 agc 21	E12	The font below the frame is too small.	Visual	LC		
	E18	This page should come before addressing the vaccine topic.	Visual	LC	Accepted	
Page 22	E8	Take the swab off the test so it does not look like a ban.	Visual	LC	Accepted	
Page 23	E20	It could present the information to seek healthcare services.	Mixed	TR	Accepted	
Page 24	E3	Review general information about physical activity guidance.	Mixed	TR	Accepted	
	E18	Suggest "moderate physical activities."	Mixed	TR	Rejected	Due to the diversity of conditions imposed by cancers and their treatments, it was suggested: "Practice physical exercise according to medical guidance."
Page 25	E18	It missed information about alcohol consumption.	Mixed	TR	Accepted	
Page 27	E7	This information is too specific. Then, the material cannot be replicated in other contexts.	Mixed	PP	Rejected	Expanded and revised versions will be re-evaluated in the future, maintaining

Supplement



ITEM	EXPERT	PROPOSITION	TYPE	FUNCTION	DECISION	JUSTIFICATION
						the validity and reliability of up-to-date
						information.
	E6	I have searched for some things on websites that are	Mixed	PP	Rejected	The public electronic pages were
		difficult or almost impossible to find. In general, they				verified for reliability and the
		are unfriendly websites.				Portuguese language.
Page 28	E8	Try to verify that the presence of women and men is	Visual	CS	Accepted	
		balanced.		CS	Accepted	
	E19	I would add the IARC-WHO	Mixed	TR	Accepted	
		(https://www.iarc.who.int) website.				

Apr.: Language Clarity (LC); Theoretical Relevance (TR); Practical Pertinence (PP); Cultural Suitability (CS).

Supplementary Table 9: Analysis of expert proposals for post-textual elements of the educational technology.

ITEM	EXPERT	PROPOSITION	TYPE	FUNCTION	DECISION	JUSTIFICATION
Final page	E6	I would change the facial expression of the man in the wheelchair.	Visual	PP	Accepted	
	E7	Perhaps replace the "uncomplicated" with "healthier life, even in pandemic time."	Writing	LC	Accepted	
	E12	It should not conclude with "Congratulations." Perhaps with another word of encouragement, but not this one.	Writing	PP	Accepted	

Apr.: Practical Pertinence (PP); Language Clarity (LC).

^a First fragment of a multiple proposition; ^b second fragment of a multiple proposition; ^c third fragment of a multiple proposition.