

Questionnaire

Evaluation questionnaire on the acquisition of basic life support skills in 10th-grade students

com base na abordagem efetuada na disciplina de Ciências Naturais, no 9th grade

I—Sociodemographic information	
A	Gender Male <input type="checkbox"/> ₁ Female <input type="checkbox"/> ₂
B	Age _____ years old ₁
C	Completed 9 th grade in the academic year _____/_____ ₁
D	Designation of the course currently attended: Course of _____ ₁
E	School Grouping attended and location _____

II—Theoretical knowledge

Please mark with an X your disagreement or agreement for each of the following statements.		Disagree	Agree
1	Basic Life Support (BLS) is any form of chest compression or artificial ventilation.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
2	The goal of BLS, performed by the person who witnessed an out-of-hospital cardiac arrest (OHCA), is to maintain breathing and circulation until differentiated help arrives.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
3	A Chain of Survival (CoS) is composed of four links of equal importance, corresponding to procedures in the recovery of a victim in OHCA.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
4	The application of BLS measures, by the person who witnessed an OHCA, increases the likelihood of victim survival up to three times, when initiated within the first three minutes after collapse.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
5	The links of the CoS are sequentially: early BLS initiation (resuscitate); early EMS access (dial 112); early defibrillation (restore); early ALS (stabilise).	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
6	Before approaching a victim, the rescuer must ensure safety for himself, for the victim and for others.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
7	In OHCA, even if safety conditions are not guaranteed for the rescuer, BLS manoeuvres should be initiated.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
8	During BLS contact with the victim's blood or other body fluids should be avoided (ex.: respiratory secretions, nasal secretions, sweat, tears, vomit).	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
9	Even if the rescuer does not have a pocket mask available, he/she can perform artificial ventilations on the victim of cardiac arrest (e.g. mouth-to-mouth).	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
10	When approaching the victim, one should look for clues as to what may have caused the emergency.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
11	For the purposes of BLS, an infant is considered to be a baby up to two years of age.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
12	To assess the reactivity of an adult victim, the rescuer stands to the side of the victim and lightly touches their shoulders and calls out to them.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
13	A victim is considered unresponsive if they open their eyes but do not move or speak.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂

14	A victim who reacts to the assessment of his or her state of consciousness should be kept in the position in which he or she was found.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
15	It is unnecessary to call 112 for help with a victim who is responsive.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
16	Airway permeabilization should always be carried out in the case of an unresponsive victim.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
17	The method of choice for airway patency in adults and children is head extension and chin elevation.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
18	When permeabilizing the infant's airway, the ear should be aligned with the axis of the trunk.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
19	Airway permeabilization, in situations of suspected trauma, is done with head extension and chin elevation.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
20	Permeabilizing the airway and restoring breathing are essential goals in BLS.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
21	Once the airway has been permeated, breathing should be assessed by observing chest movements, listening for breath sounds coming from the mouth/nose and feeling the exhaled air on the rescuer's face.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
22	The breath assessment lasts up to 15 seconds.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
23	A victim who is breathing normally should be placed in lateral safety position (LSP).	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
24	In assessing signs of breathing, a sigh from the victim is equivalent to breathing.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
25	When a rescuer is unsure if the victim is breathing normally, they should act as if breathing is present.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
26	If a child does not show signs of breathing, while maintaining airway patency, any obvious obstruction should be carefully removed.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
27	A child should be checked for signs of spontaneous circulation (e.g. movement, coughing) within 10 seconds.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
28	In infants, the search for signs of circulation may be by brachial or femoral pulse.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
29	A child who has signs of circulation but is not breathing should receive up to one insufflation with exhaled air every 3 seconds.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
30	A child without signs of circulation should receive 15 chest compressions alternating with two inflations.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
31	LSP applies to victims who are unresponsive and not breathing effectively, pending the arrival of the emergency team.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
32	A victim who recovers breathing after OHCA but remains unresponsive should be placed in LSP.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
33	LSP ensures airway permeability.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
34	LSP in infants may be replaced by lying the victim sideways, using a pillow or a folded sheet placed behind at back level.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
35	An unconscious spontaneously breathing child should be placed in LSP following the same procedures as for an adult.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
36	If an adult victim is not breathing normally, signs of circulation should be checked immediately before activating 112.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
37	When calling 112, even if the victim can talk, the first-aiders should provide the relevant information.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
38	The exact location of the victim is decisive for the speed of rescue.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
39	One should follow the advice of the operator who answers the phone, even if it takes a long time.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂

40	In an adult patient, 112 should be called as soon as no sign of breathing is detected.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
41	In adult OHCA, 30 compressions should be performed on the external.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
42	In adults, chest compressions should be interspersed with two inflations.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
43	Chest compressions should be performed without loosening / removing the clothes covering the victim's thorax.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
44	Resuscitation manoeuvres are stopped if the victim has a spontaneous opening of the eyes and reassessed.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
45	Chest compressions, in adults, are performed on the lower half of the sternum.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
46	In an adult patient, after assessing the signs of respiration, one should assess signs of circulation, such as the existence of a pulse.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
47	After detecting that a child is not breathing normally, 5 insufflations should be performed.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
48	Chest compressions in infants are performed on the lower half of the sternum, one finger above the xiphoid appendix.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
49	Chest compressions on a child should depress the chest by at least 4 cm.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
50	In an infant the chest compression is done with two fingers.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
51	In a child the chest compression can be done with one hand only or using both hands.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
52	In paediatric BLS, with only one resuscitator, the manoeuvres are maintained for one minute and only then, if still alone, is 112 called.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
53	A victim of airway obstruction, by a foreign body, places his hand, in a sign of distress, in the area of the thorax.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
54	In severe foreign body airway obstruction, breathing is loud and the victim maintains the effective cough reflex.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
55	The foreign body choking emergency algorithm consists of the application of up to five back blows followed by up to five chest thrusts.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
56	In an infant with airway obstruction due to a foreign body, back blows and chest compressions are applied.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂
57	In a mild airway obstruction by a foreign body, the victim should be suggested to cough.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂

III—Perceptions about the theoretical training received

Please mark with an X your evaluation regarding the theoretical training received in each of the following topics.		The topic was not addressed	I don't feel prepared	I feel unprepared	I feel well prepared	I feel very well prepared
58	CoS and survival rate in OHCA.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
59	Assessment of safety conditions when approaching a victim.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
60	Assessment of the adult patient's response.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
61	Assessment of the paediatric patient response.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
62	Airway permeabilization.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
63	Assessment of respiratory signs	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

64	Assessment of circulation signals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
65	Alarm procedures in case of emergency.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
66	Adult BLS algorithm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
67	BLS infant and child algorithm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
68	Distinction between severe and mild foreign body airway obstruction.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
69	Relief for mild airway obstruction.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
70	Relief for severe airway obstruction in adults.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
71	Relief for severe airway obstruction in an infant.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
72	LSP.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
73	On a scale of 1 (<i>very poor</i>) to 10 (<i>excellent</i>), please rate the theoretical training received on BLS. <i>Please place an X in only one of the fields</i>									
	1	2	3	4	5	6	7	8	9	10
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IV—Perceptions about the practical training received

Please mark with an X your evaluation about the practical training received in each of the following subjects.		The topic was not addressed	I don't feel prepared	I feel unprepared	I feel well prepared	I feel very well prepared
74	Practical training on adult patient response assessment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
75	Practical training on assessment of the paediatric patient response.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
76	Practical training on airway permeabilization.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
77	Practical training on assessment of respiratory signals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
78	Practical training on assessment of traffic signs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
79	Practical training on emergency alarm procedures.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
80	Practical training on BLS algorithm for adults.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
81	Practical training on adult chest compressions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
82	Practical training on adult artificial ventilation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
83	Practical training on paediatric BLS algorithm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
84	Practical training on chest compressions in children.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
85	Practical training on artificial ventilation in children.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
86	Practical training on chest compressions for infants.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
87	Practical training on artificial ventilation in infants.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
88	Practical training on adult airway obstruction relief.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

89	Practical training on relief of severe airway obstruction in infants.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
90	Practical training on LSP.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
91	On a scale of 1 (<i>very poor</i>) to 10 (<i>excellent</i>), please rate the practical training received in BLS. <i>Please place an X in only one of the fields</i>									
	1	2	3	4	5	6	7	8	9	10
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

V—Perceptions on skills acquisition

Please mark with an X your evaluation regarding the skills acquired in each of the following topics.		The topic was not addressed	I don't feel prepared	I feel unprepared	I feel well prepared
92	Skills on how to ensure the safety of the victim and resuscitator.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
93	Skills on assessing the response of the adult patient.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
94	Competencies on the assessment of the paediatric patient response.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
95	Airway permeabilization skills.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
96	Skills in assessing signs of breathing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
97	Skills in assessing signs of circulation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
98	Skills in emergency alarm procedures.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
99	Skills on the BLS algorithm for adults.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
100	Skills about where to place your hands to do chest compressions for adults.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
101	Skills to perform compressions with adequate force.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
102	Skills to perform compressions at the appropriate frequency.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
103	Adult artificial ventilation skills.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
104	Skills on quantity and ratio of compressions/ventilations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
105	Skills to stop BLS when justified.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
106	Paediatric BLS algorithm skills.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
107	Skills on child chest compressions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
108	Skills on artificial ventilation in child.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
109	Infant chest compressions skills.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
110	Infant artificial ventilation skills.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
111	Skills in relief of severe airway obstruction in adults.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
112	Skills in the relief of severe airway obstruction in infants.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
113	LSP skills.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

114 On a scale of 1 (*very poor*) to 10 (*excellent*), please rate your skills to intervene in BLS. *Please place an X in only one of the fields.*

1	2	3	4	5	6	7	8	9	10
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8	<input type="checkbox"/> 9	<input type="checkbox"/> 10

q115–q128: Questionnaire part not analyzed in this paper.

VII—Community intervention

Indicate with X the answer(s) that best describe the situation described.

129 If you are trained in BLS, indicate possible constraints that would prevent you from acting in case of CPR.

- ☐1 The victim being a relative ☐2 The victim being a friend ☐3 Lack of ventilation mask ☐4 Suspicion that the victim might have a contagious disease
☐5 There are many observers on site ☐6 The victim suffers an ostentatious traumatic accident, with other injuries ☐7 Another constraint.

129 a) Please indicate which: _____

130 On a scale of 1 (very weakly motivated) to 10 (highly motivated), please evaluate your motivation to intervene in BLS. *Please place an X in only one of the fields*

1	2	3	4	5	6	7	8	9	10
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8	<input type="checkbox"/> 9	<input type="checkbox"/> 10