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# Life skill education at the time of COVID-19: perceptions and strategies of Italian expert school educators

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## Abstract

The coronavirus disease 2019 (COVID-19) pandemic has had a huge effect on adolescents' health and learning. Health promotion strategies should be valued, and life skill education is a potential approach in this direction. This study aimed to investigate the implementation of an evidence-based life skill education programme during the COVID-19 pandemic in the Lombardy Region (Italy) by collecting opinions about the programme's usefulness and feasibility and identifying the strategies for implementing it through distance teaching. The study involved 63 middle school expert teachers, principals or coordinators in life skill education. An online questionnaire with closed- and open-ended questions was used. A qualitative content analysis was carried out using N-Vivo Answers software. The participants recognized the high value of life skill education at the time of COVID-19, but they showed reticence regarding its feasibility. Positive effects of the programme on both health and learning outcomes were reported. The obstacles were related to interpersonal aspects, student involvement, methods, organization and planning. Many strategies were suggested related to the teaching method, the curriculum organization and the adaptation needs. These strategies can be used to implement active and cooperative learning at a distance to reinforce students' life skills to cope with the crisis and promote their health.

## Introduction

The coronavirus disease 2019 (COVID-19) pandemic has had a huge effect on people mental health, relationships, the economy, learning, safety, etc. [1–7]. A significantly vulnerable population is represented by children and adolescents. Although children have proven to be resilient during crises, this characteristic cannot be taken for granted, and efforts should be made to ensure their growth and development [8]. School closures, distance teaching and social distancing have been shown to impact children and adolescents' health, learning and safety [4, 6, 9, 10]. In particular, the pandemic has reduced the time spent in learning and students' motivation to learning. It has affected many protective factors usually guaranteed by schools, such as equal access to education, different typologies of activities, and formal and informal education [6, 11, 12]. Fear, anxiety, frustration and boredom, isolation and depressive symptoms are common conditions during quarantines and pandemics [1, 13–15]. The school closures have denied children and adolescents social and emotional experiences necessary for their development and well-being [10]. Most children have lost the opportunity to experience healthy behaviours, such as healthy nutrition or physical activity, or access health services [16, 17]. The pandemic may also effect children and adolescents for long time. Disruptions to their education and the consequent widening of inequalities

may affect their skills, increase drop-out risks and increase the probability of future unhealthy habits and risky behaviours [10, 18, 19].

Many international agencies agree that health promotion can enhance protective behaviours, promote health literacy and skills, and activate societal, community and individual strategies. It has a central role in empowering communities and individuals by enhancing social responsibility, social cohesion and solidarity [8, 19]. In the school setting, health promotion should be considered in the planning of educational strategies, and programmes that promote cognitive, social and behavioural skills, healthy attitudes, resilience and empowerment should be implemented [10, 20]. The World Health Organization (WHO)-Europe Technical Advisory Group for schooling during COVID-19 affirms that ‘the principles of health promoting schools (HPS) are even more important in a pandemic’ [21, p. 9]. A whole-school approach should be promoted to guarantee safe and including learning environments, develop skills able to impact learning and health, offer a positive social environment and connectedness, and assure positive and healthy experiences [22–24]. Moreover, evidence-based health promotion programmes and good practices should be implemented in this difficult period [3].

An interesting and potential approach to promote health and learning during the COVID-19 pandemic is life skill education [25–27]. Life skills are psychosocial and interpersonal ‘abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life’ [26]. They include decision-making and problem-solving skills, critical thinking, communication skills, social skills, refusal abilities, empathy building and the ability to cope with emotions, stress and changes. These skills can be promoted by the educational curriculum and the teaching methods employed to create and maintain healthy lifestyles, reduce risk behaviour, prevent non-communicable diseases and promote well-being [28, 29]. The WHO, United Nations and Unicef have promoted life skill education for approximately 30 years, and many

evidence-based programmes have been validated and implemented around the world. Their efficacy increases when implemented through a whole-school approach [25]. Stojanovic and colleagues [17] demonstrated the relevance of a life skill education programme during the pandemic in Croatia. Moreover, qualitative studies about adolescents’ actual challenges showed the importance of educational activities that can allow them to share positive experiences with friends, include healthy practices in their routines, and receive support to share and cope with their emotions, even though remote education [30, 31].

Implementing evidence-based life skill education programmes during the COVID-19 pandemic is challenging, and some obstacles have been reported in the literature. Most of the activities and programmes are not mandatory and have been interrupted because they are perceived as less of a priority [10, 17]. Moreover, the evidence-based programmes that require a certain level of fidelity and inevitably impose constraints and are considered too challenging at that moment [17, 32]. Finally, active and cooperative learning, which include techniques such as modelling, behavioural practices or group work, are critical aspects in distance teaching or when physical distance limitations are present [32]. However, these methodologies are fundamental to develop a more inclusive and student-centred education, to promote participation and empowerment and to enhance the skills, health and resilience of students [9, 23, 33]. The studies that have collected data on the positive effects of evidence-based health promotion programmes on both students’ health and learning and have indicated the methodologies to implement them are needed.

These barriers are related to the so called ‘emergency remote teaching’ [34–37]. Schools worldwide had to turn to online teaching suddenly and without the time to plan it or define the best strategies. The educational setting has been disrupted, and teachers had to find new forms of relationship with their students. Some authors argue that this transition requested to adapt the caring relationship with students, the idea of caring itself and their

pedagogical models [35, 38]. All these elements are particularly important for health promotion, considering the relevance and the effects of relationships in this area [24]. Research about health promotion through ‘emergency remote learning’ is necessary to understand the effects on students’ health and to identify lessons learned that can be used to plan future teaching.

This study aimed to investigate the implementation of an evidence-based life skill education programme during the COVID-19 pandemic in the Lombardy Region in northern Italy.

In particular, this paper has the following two specific research aims: (i) to investigate school educators’ opinions about the usefulness and feasibility of the programme through distance or blended teaching during the COVID-19 pandemic and (ii) to identify strategies and tools for the concrete implementation of the programme through distance teaching.

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## Method

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### Participants

The study involved 76 middle school expert teachers, principals or coordinators in life skill education and, in particular, in the LifeSkills Training (LST) programme. They were selected based on their expertise and participation in previous activities by the local coordinator of the program and the local boards of the Health Promoting School Network in the Lombardy region.

Participants were recruited by email in the second half of June 2020 and were asked to answer an anonymous online questionnaire. The school year had just ended; all schools were closed, and teaching had been performed remotely for 4 months.

The study has been approved by the Regional HPS board and all participants gave their informed consent.

Sixty-three people participated in the study (83% response rate), including 40 middle school teachers, 2 school principals and 4 school coordinators (17 persons did not indicate their role). Half of the participants had been implementing the programme

for more than 6 years. The participants came from different cities in the region.

### The life skill education programme

The LST programme [39] is a research-validated and widely disseminated school-based prevention programme proven to reduce alcohol, tobacco, and drug abuse and violence by targeting the major social and psychological factors that promote the initiation of substance use and other risky behaviours (for a review [40]). The programme provides adolescents with the confidence and skills necessary to handle challenging situations and succeed in developmental tasks.

In Lombardy, a region in northern Italy, the LST Lombardia programme was adapted to the local culture and needs, and it was integrated with a whole-school approach and health-promoting school strategy [41, 42]. Its efficacy was verified through a large-scale effectiveness study [43]. Approximately 50 000 students have been involved in the programme in the region.

### Instrument

The questionnaire was divided into three sections with different aims. The first section investigates the usefulness of the programme during the COVID-19 pandemic through closed-ended questions concerning how useful school educators consider the programme’s activities and contents to have been during the crisis. A 10-point Likert scale anchored by 1 (not at all) and 10 (very) was used. An open question explored which aspects of the LST programme were most useful in this situation.

The second section of the questionnaire investigated the feasibility of LST in remote or blended learning modes. Two closed-ended questions were asked to quantify the degree of feasibility of the programme perceived by school educators through distance and blended teaching. A 10-point Likert scale anchored by 1 (not at all) and 10 (very) was also used in these cases. An open-ended question investigated the obstacles in the programme implementation in a blended or distance learning mode.

In the third section of the questionnaire, a set of open-ended questions asked for strategies to implement the programme through distance or blended teaching in this period. Starting from a general question, more specific strategies were investigated related to three specific life skill education methods and the programme analysed, as follows: behavioural simulations and learning by experience; modelling and peer sharing; and practice repetition and reinforcement. A final question concerned the tools that teachers used for the implementation of the distance programme.

In the last part of the form, questions about the following socio-anagraphic characteristics were included: territorial origin, role, familiarity with the distance learning method and its tools, and the level of experience with the LST programme.

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## Analysis

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Descriptive analysis of the closed-ended questions was run. IBM SPSS Statics 26 was used.

A qualitative content analysis [44] was used to analyse the texts of the open-ended responses using the N-Vivo Answers software. The text was coded in meaningful units and then grouped under higher-order headings. Codes, subcategories, categories and themes were identified. Both top-down and bottom-up analysis processes were used to integrate the information that emerged directly from the texts and the programme's characteristics. This choice was made to provide an organization as close as possible to the programme's practical implementation.

The starting point was to perform a descriptive coding (without interpretation) process on the material to transform the text into meaning units. The units were condensed into brief descriptions close to the text of the manifest content representing the codes. The interpretation of the latent content and the abstraction process were used to define the subcategories, categories and themes. The categories concerning the strategies were consistent with the teaching skills and the methodological steps included in the programme.

The data were analysed independently and periodically revised and discussed by VV and SC the first two authors. The final structure was then presented and discussed with the programme's regional coordinator and some experts in the field.

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## Results

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### Usefulness and feasibility of the programme through distance or blended teaching during COVID-19

The closed-ended questions show that most school educators consider the activities and contents of the LST programme useful or very useful during the pandemic phase. However, the participants are more critical about its feasibility. In particular, 66% of them reported low or very low values. The programme implementation seems more feasible in a blended condition, integrating distance and face-to-face teaching. The results of the close-ended questions are reported in [Table I](#).

To better investigate the programme's usefulness and feasibility when implemented through distance or blended teaching during COVID-19, school educators' perceptions were collected through open-ended questions. The content analysis revealed a positive impact of the programme on both health and learning. [Table II](#) reports the themes and codes identified.

During an emergency, health promotion is considered relevant to both promote and allow students to experience health behaviours and prevent unhealthy and relevant phenomena, such as cyberbullying. Additionally, the contents of the programme are considered particularly valuable. The personal, social and resistance skills promoted by the programme are useful to help students cope with the present situation. Finally, school educators valued some of the methodological characteristics of the programme. The programme proposes a multifactorial approach that considers different aspects that influence physical, psychological and social health. More importantly, it provides practical tools for use with active teaching methodologies and to reinforce student learning. The programme is also

**Table I.** *Perceived utility and feasibility*

	Mean	D.S.	Values 1–2–3	Values 4–5	Values 6–7	Values 8–9–10
Utility	7,16	2,15	8%	13%	29%	51%
Feasibility with distance learning	4,15	2,43	45%	21%	21%	13%
Feasibility with mixed teaching	5.87	2,43	17%	29%	21%	33%

considered useful during the pandemic because it has positive effects on learning and teaching. First, the participants reported that the programme is able to promote not only health-related skills but also learning transversal skills, such as learning to learn, knowing awareness or metacognition, and learning management skills that allow more autonomous management of lessons and study. Moreover, the programme also develops teachers' skills, giving them new strategies for class management, teaching customization according to students' peculiarities and identifying students' difficulties. Finally, the programme has positive effects on the class climate, improving communication and relationships.

A second topic investigated concerns regarding obstacles in implementing the LST at a distance or through blended teaching. [Table III](#) reports the themes and categories that emerged.

The following themes related to obstacles were identified: interpersonal aspects, student involvement, methods, organization and planning. The first theme includes all the difficulties at the communicative and relational levels. Distance learning lacks physical contact, the immediacy of exchange and the details of non-verbal communication. The process of sharing between peers, a fundamental aspect of life education programmes, is limited. Educators refer to the difficulty in building nonsuperficial relationships due to the absence of proximity, daily contact and effective interaction at a distance. The respondents expressed doubts about the students' possibilities to express their emotions and grasp others' moods at a distance, which prevents empathic exchanges. Additionally, the class bond and the sense of community are difficult to maintain. The second theme includes

all obstacles related to the students' involvement in activities. Their commitment is lower because of concentration and participation difficulties, and their disclosure is reduced. Other factors are associated with the actual situation. Distance teaching requires more autonomy in managing learning and schoolwork. Regarding the programme, students need to initially familiarize themselves with the programme activities and method, which is difficult to do at a distance if the programme has not been experienced in person before. As the lessons are followed from home, a lack of privacy, which is necessary when dealing with typical life skill topics (e.g. coping with emotions, shyness or relational conflicts), is highlighted in particular due to family members' presence and interference. Moreover, vulnerabilities due to the pandemic period and related to social, emotional and cognitive impacts have inevitable impacts. The third theme reflects the methodological difficulties of distant teaching. According to the participants, all the characteristics of active and cooperative learning (e.g. experiential learning, peer modelling and group work) are difficult to use, as are some specific techniques typical of life skill education (e.g. circle time and simulations). Additionally, the coaching role in guiding or monitoring students is challenging. The last theme regards organizational obstacles. Some difficulties are due to school reorganization. Teachers and principals underline the lack of continuity in school opening and are concerned about the possible fragmentation of the curriculum. Consequently, they perceive a lack of resources, and life skill education could be perceived as an additional task. Moreover, they struggle to create an adequate setting for life skill education activities. They report difficulties in creating a welcoming and non-judgemental virtual

**Table II.** School educators' perceptions about the utility of the life skill programme during the COVID-19 pandemic

Categories	Subcategory	Code	Verbatim examples
Theme 1.1: Positive impacts on health promotion			
Objectives	Health promotion	Promoting healthy behaviours Avoiding unhealthy behaviours	'Healthy behaviours' 'Avoiding cyberbullying'
Content: students' skill	Personal skills	Anxiety, decision-making, problem solving, anger, self-improvement, goal setting	'In particular techniques for coping with anxiety and anger; I also find everything about decision-making and self-improvement, in general, very useful.'
	Social skills	Communication skills, assertiveness Active listening, empathy	'Lessons on (...) successful communication, communication languages'
Method	Social resistance skills	Addictions, advertising, social media Creativity, critical sense, stress	'In a broad sense advertising and media (correct information)'
	Comprehensive approach	Multifactorial aims	'It never focuses on just one aspect of the substance abuse problem but addresses all the most important factors that lead adolescents to use drugs.'
	Active learning	Interactivity units Behaviour simulations Training and reinforcement	'The interactivity of the units' 'In particular techniques proposed during the lessons about behaviour simulations'
	Theme 1.2: Positive impacts on learning and teaching		
Students' skills	Developing transversal competences	Learning to learn Knowing awareness Finding resources Enhancing metacognition	'Seeking and finding within oneself the energy and resources to cope.' 'Deepening thoughts, self-reflection on motivations, self-reflection on cognitive phenomenon, directing learning processes'
		Learning management skills	Management of teaching activities Time management
Teachers' skills	Class management	Class management during a crisis	'Additionally, on how to manage the class when there is a period that involves great emotional fragility'
	Teaching customization	Supporting student growth Enhancing students' personal characteristics	'The possibility for each student to participate with their own personal characteristics, social background and skills'
Class climate	Difficulties management	Observation and identification of students' personal difficulties	'Starting from there (...) the ability to observe students and grasp their difficulties'
	Communication	Sharing Discussion Listening	'The chance they give the children to talk' 'The chance they give the children (...) and to be heard'
	Relationships	Relationship improvement	'I think the aspect of the LST program that can be most useful is the one (...) that creates relationships'.

environment in distance learning. Other obstacles are related to external conditions. The participants reported inequalities in terms of access to devices and connections, which had huge impacts.

### Strategies to implement life skill education programmes

The second aim of the study was to identify strategies and tools for practical implementation of the

**Table III.** School educators' perceptions about the obstacles in implementing the life skill programme during the COVID-19 pandemic

Categories	Subcategory	Code	Verbatim examples	
Theme 2.1: Interpersonal aspects				
Communication difficulties	Communication	Listening	<i>'On-line communication is difficult, both because of technical problems and from a psychological point of view'</i>	
		Verbal communication		
		Non-verbal communication		
	Body absence	Physical contact	<i>'Not looking each other in the eye when talking'</i>	
		Eye contact	<i>'The lack of closeness that sitting in a circle helped to give'</i>	
		Proximity		
	Relationship difficulties	Students confrontation	Discussion	<i>'Debate, the sharing of opinions is necessarily compromised by distance'</i>
			Sharing	
		Relationship continuity	Interaction	<i>'Lack of a relationship that is built and consolidated in presence'</i>
			Relationship development	<i>'The biggest obstacles are the lack of direct, impromptu, face-to-face confrontation'</i>
Synchrony				
Emotion perception		Lack of everyday life		
		Emotions flow	<i>'The difficulty of perceiving the real state of mind of the students'</i>	
Class bond	Empathy			
	Community	<i>'The lack of the community element places great limits on the potential of the LST'</i>		
Theme 2.2: Student involvement				
Student response	Involvement	Concentration	<i>'Increased difficulty in maintaining concentration'</i>	
		Participation	<i>'The main obstacle is student's inaction, who does not feel he has to participate'</i>	
	Disclosure	Authenticity	<i>'The feedback to the activities is very 'distorted''</i>	
Situational difficulties	Distance teaching	Physical and emotional commitment		
		Autonomy	<i>'The lack of autonomy shown by primary and middle school students during this long period of distance learning'</i>	
	Setting Psychological effects	Familiarization with the programme	<i>'All this (...) is very difficult, especially for those who are at the beginning of their journey'</i>	
		Privacy	<i>'Lack of privacy (family members attend the video lessons)'</i>	
		Fragility	<i>'Helping the weakest children at a distance is complex, because they are cognitively, emotionally and socially fragile'</i>	
Theme 2.3: Method				
Active and cooperative learning	Methodological peculiarities	Experiential learning	<i>'Everything that is experiential among children is very difficult'</i>	
		Peer modelling		
		Group work	<i>'Another major obstacle is the difficulty of working in small groups'</i>	
	Specific techniques	Flipped classroom		
		Circle time	<i>'The main obstacles are the impossibility of realising the working sessions with the discussion in a circle setting'</i>	
Coaching	Educational role	Behavioural simulation	<i>'On anxiety management, the moment of autogenic training'</i>	
		Autogenic training	<i>'It is possible to guide them, approach them and talk to them and the class. With distance teaching it is more complicated.'</i>	
	Supervision role	Guiding students	<i>'It is not possible to have serious control of the group.'</i>	
		Monitoring students		

(continued)

**Table III.** (Continued)

Categories	Subcategory	Code	Verbatim examples
Theme 2.4: Organization and planning			
Internal	Time	Fragmentation	<i>'A risk in the division between distance and blended learning could be the fragmentation of the course'</i> <i>'At a distance, very little time is available for the teaching of the disciplines.'</i>
		Lack of time	
	Setting	Physical setting Perceived setting	<i>'On the creation of a welcoming and non-judgemental virtual environment that can put the pupils at their ease'</i>
	Resources	Additional tasks	<i>'Curricular schoolwork that weighs down and does not leave much room for anything else'</i>
External	Tool availability	Access to devices	<i>'The difficulty for some pupils without devices (some requested those provided by the school)'</i> <i>'Lines that are not always stable represent an additional and not insignificant obstacle'</i>
		Access to connection	

programme through distance teaching. The participants suggested many strategies in this direction, and most of them represented a solution to the obstacles just described. Bottom-up and top-down processes were used in the analysis to integrate the information that emerged from the answers with the programme and life skill education characteristics. As a result, five themes have been identified. Three of them focus on the teaching method, one on curriculum organization and planning, and one is related to adaptation needs. Table IV reports the themes, categories and subcategories identified.

Going into detail about the method, 11 categories were identified by comparing what the participants reported with the detailed descriptions of the teaching skills and methods proposed by the programme. These categories were gathered together into three themes representing the macro process goals that teachers may have in implementing a life skills education programme. The first theme focuses on methods to make explicit the educational goals of the work units and activities. Promoting students' life skills is important to make the students aware of the aims of their learning experience. To introduce the work unit and its aims, flipped classroom strategies are suggested. This method consists of reversing the traditional learning cycle; i.e. the lesson becomes homework while time in the classroom is used for collaborative activities, experiences, debates and workshops. In this context, the student plays an active and central role

in the learning process. The strategies include the use of guiding tools prepared by the teachers to support students in identifying the unit's core elements autonomously. To close and summarize the units' main points, participating strategies to synthesize the contents, collect students' perceptions and value students' participation are suggested.

The second theme refers to the methods used to foster relationships and cooperative learning. These were cited as relevant difficulties in distant teaching, but many strategies have been identified. To promote a good climate and student participation, it is important to check the students' involvement, consider that attention is more difficult to maintain in front of a screen and that students' interactions can also be promoted at a distance with specific tools. Another relevant issue to promote life skills is to give students the opportunity to confront and share thoughts, feelings and experiences with each other. This exchange can involve an individual presenting to the whole class or participation within groups or pairs. The participants suggested strategies that consider both direct and synchronous sharing and mediated sharing through students' material production. To foster cooperative learning, it is important to allow students to work in pairs or groups, alternating between plenary and group sessions. The group session objectives can be to share thoughts, feelings and experiences or produce specific materials and practice specific behavioural skills. Specific ideas and tools are suggested.



**Table IV.** Strategies suggested by school educators to implement the life skill programme during the COVID-19 pandemic

Categories	Subcategory	Code	Verbatim examples	
Theme 3.1: Methods to make explicit the educational goals Introduce the work unit and its aims	Flipped classroom	Presentation in advance of the unit aims and content to the students by video or material	'My proposal is to introduce to the students the topic of the lesson a few days before through a short video stimulus on the topic'	
		Ask students to prepare units for classmates	'You could provide the material in advance to the students, divided into small groups, and ask them to prepare the unit for their classmates.'	
	Guiding tools	Guiding questions	'Always under the guidance of the teacher who will manage with guiding-questions or stimulating-questions'	
		Content synthesis	'Opening or closing concept maps' 'Additionally, the preparation by the pupils of the summary in the form of a power point presentation'	
Close and summarize	Students perceptions	Collection of images or phrases from students about what they learnt	'It would be useful, at the end of each meeting, to collect a picture or a short sentence from each pupil as a report of what has been perceived even at a distance'	
		Appreciation	'A summary of the work undertaken will be made and thanks will be expressed for the stimuli given'	
				'Increasing the duration of each lesson, not in terms of content of course, but to encourage greater participation' 'I would check halfway through the lesson, through the "cloud", the mood and the level of interest and involvement.'
Theme 3.2: Methods to foster relationships and cooperative learning Promote a good climate and participation	Students involvement	Increased time for participation		
		Visual presentations		
	Maintenance of attention	Checking level of involvement and student feedback		
		Synchronous time reduction		'My proposal is to introduce the topic of the lesson to the students a few days before (...). During the "next" lesson the pupils will already be able to speak with more knowledge'
Interaction	Anticipation of the material to the students	Comparisons from student's products	'On which to discuss either in presence or in a video lesson, but in order to bring attention to some specific product in the realisation of which the students have been involved'	
			'During which the path is presented and the LST rules are written'	
	Definition of group rules		'In which the student can be put in virtual contact with others within a real reality'	
	Active listening promotion		'In distance or blended learning these strategies have a greater need for digital tools for collaboration'	

(continued)

**Table IV.** (Continued)

Categories	Subcategory	Code	Verbatim examples		
Confront and share	Content of sharing	Ideas and tips	'Exchanging the ideas that emerged from each group'		
		Experiences	'It is essential to propose materials with the use of images, diagrams, video and audio, tutorials, slides... Short and concise, to be shared'		
		Feelings	'The sharing of an individual reflection made earlier'		
		Thoughts			
		Materials			
		Previous work			
		Sharing between individuals	'To prepare reports to be shared in video plenary'		
		Sharing between groups or couples	'Exchanging the ideas that emerged from each group'		
		Dedicated online platforms	'Debates could be done more easily because many students find it easier to write in the chat'		
		Videocoferencing	'Activations are useful and help dialogue (e.g., take an object that represents you at the moment, show it to everyone and explain why)'		
Group work	Direct distance sharing	Padlet	'Video lessons for sharing individual reflection'		
		Chat for privacy protection	'To share them you can ask [students] to make an infographic, a drawing'		
		Small group video calls			
		Specific activations for dialogue			
		Presentations			
		Videos			
		Video lessons			
		Individual sheets			
		Songs or drawings			
		Self-construction learning	'I believe that the proposal of collaborative activities in pairs and/or small groups can support and encourage learning'		
Group work	Aims of group work	Fostering student collaboration			
		Sharing and practice			
		In the presence			
		Synchronous plenary moments			
		Digital tools (webapp/group chat)			
		Group time to share thoughts	Actors involved	Discussions in pairs or groups	'If attendance will be full class, it can be done in the classroom'
				Group listening reinforcement	'Or plenary (...). In distance or blended learning these strategies need more digital tools such as videos or webapps'
				Reflection on inputs given by teacher in group	'Ask them to come together in small groups to reflect on patterns and stimuli given by the teacher'
				Differentiated group tasks	
				Preparing work units for peers	
Create small videos					
Group time to produce materials and practice	Direct distance sharing			Tasks will be different per group'	
				Maybe work in subgroups with sending a video to the teacher'	

Tools	<p>Responsibility sheet Video calls Online platforms Video Webapp or group chats</p>	<p><i>'Ask them to meet in small groups through the video conference mode, to reflect on patterns and stimuli given by the teacher'</i> <i>'Only participants of that group can share the file and compare'</i></p>
Theme 3.3: Methods to provide opportunities for students to practice	<p>Synchronous Presentation of the practice with digital tools Checklist to guide students</p>	<p><i>'Providing precise and clear checklists and guiding the pupils'</i></p>
Asynchronous	<p>Recorded teacher lectures</p>	<p><i>'The teacher reiterates and reinforces certain concepts through asynchronous recorded lectures.'</i></p>
Give examples	<p>Example characteristics</p> <p>Videos selected by teachers</p> <p>Students experience</p> <p>Materials produced by students</p>	<p><i>'Need to be contextualised and updated on situations that might actually arise'</i> <i>'Structuring work on situations of everyday life'</i></p>
Analyse situations	<p>Content of the analysis</p>	<p><i>'Through a short video stimulus on the topic and then ask the students to watch it again at their leisure'</i> <i>'The students' presentation of typical situations in which they found themselves and possible ways out'</i> <i>'To think about the techniques or suggestions given and be asked to think of situations where they might be useful to use them. To share them, they can be asked to make (...) a presentation or whatever medium they prefer'</i> <i>'They could send them small videos and ask them to make more videos on problem situations.'</i> <i>'It would be interesting to get groups to look for protective and risk factors'</i> <i>'Underline whether and how the indications provided were useful'</i></p>
Analysis tools	<p>Concrete situations</p> <p>Risk and protective factors</p> <p>Utility of strategies suggested</p> <p>Presentation</p> <p>Questionnaires</p> <p>Mapping everyday life</p> <p>Videos</p> <p>Songs and drawings</p> <p>Daily diary</p>	<p><i>'Will be asked to think of situations in which it might be useful to use them. To share them, they can be asked to make a presentation or whatever medium they prefer in which the situation and the "solution" is clear'</i> <i>'Building a map of everyday life with the students. Alongside each situation, even a small one, express difficulties and solutions'</i></p>

(continued)

**Table IV.** (Continued)

Categories	Subcategory	Code	Verbatim examples
Practice	Situation characteristics	Simple	'Should be contextualised and brought up to date on situations that might actually arise'
		Everyday situations	
	Peculiarities	Significant	'Perhaps produced independently by the students' 'Enhancing behavioural simulation activities' 'Thinking of activities linked to aspects that are repeated day by day, essentially unchanged, to be proposed daily' 'Maybe you can try to simulate situations, having already experienced in presence how they work' 'Role-play activities can also be implemented remotely, by providing precise and clear checklists and guiding the students' 'The realisation of a concrete product can be useful not only for the replacement of behavioural simulations but also for model sharing' 'Leave room for very short prepared and recorded performances' 'You could send them small videos and ask them to make more videos on problem situations' 'Videos with open endings should be created, asking students to think about and possibly realise a possible ending'
		Creative	
		Active role of students	
		Multiple exercises	
	Synchronous practice	Individual and group work	'I can propose to repeat the lessons also at home in a domestic environment' 'Ask students to share in a special virtual space any experience related to one of the units seen' 'Shared virtual noticeboards could be created, updated daily by the pupils, to support each other in implementing good practice' 'It is also useful to make a summary during the unit. This serves to give and receive feedback on how the activity is progressing'
		First in presence and then at a distance	
		Behavioural simulation importance	
		Integration with daily habits	
Asynchronous practice	Behavioural rehearsal with checklists	Individual or group practice tasks Video recordings of simulations Recordings and re-listening Teacher simulation recording and students practice in new situations Video with open ending to be realized Video blog with recorded simulations Family involvement in activities Practice at home daily Dedicated virtual space for sharing daily practice Practice diary	
	Alternation between plenary and group/couple sessions		
	Video call in small groups/pairs		
	Chats for fast sharing		
	Online dedicated space		
Give feedback and reinforce	Synthesis during the unit	Ongoing summaries	
		Ongoing learning and emotional state checks	

Assessment tools	Self-assessment checklists and rubrics Digital assessment tools	'Clear, detailed and motivating checklists and self-assessment rubrics can be provided' 'The tools in the case of distance learning must necessarily be digital ones and therefore video and webapps for (...)distance assessment' 'A strong focus on reworking students' experiences' 'It will not be like a "live" behavioural simulation, but it will be metacognitive work that could replace it' 'At the end, I think it is important for each student to write a report on the meaning of the activity, even in a single sentence' 'Ask the students to share in a virtual space each experience related to one of the units seen and to underline if and how the indications given were useful and were put into practice' 'One could think of using a padlet which would replace the posters and which could be updated simultaneously by all the students'
Practice analysis	Aims Elaboration instruments Elaboration sharing tools	Elaboration of the student experience Metacognition skill reinforcement Written report Presentation Drawings Video call Virtual synchronous space Virtual asynchronous space
Theme 3.4: Organization School and class organization	Curriculum inclusion	Competences curriculum tool
Teacher preparation	Class planning Programme preparation	<i>Class council discussion</i> <i>Planning teachers availability for implementation</i> <i>Detailed project planning</i> <i>Flexibility-adaptation process</i> <i>Digital adaptation</i>
	Teachers training	Distance teaching Online support for teachers
		'One tool is the citizenship curriculum that each school should have constructed on the basis of Decree-Law 92. In that curriculum, LST is strongly present and strongly useful.' 'Sharing in the team and in the class council to support the paths in a recurrent way.' 'I do not see any particular obstacles, just a different way of managing the program' 'Proposing themes/suggestions/stimuli through different materials and languages' 'It must be remembered that part of the programme is also teacher training, so it is hoped that there will be an open window on distant teaching in the training session' 'Provide online support from an expert who can give teachers a little support if needed'

(continued)

**Table IV.** (Continued)

Categories	Subcategory	Code	Verbatim examples
Implementation conditions	Student autonomy preparation	Autonomous use of digital tools Training students for an active and leading role	'Whether students are able to be autonomous in the management of digital tools' 'Train the most motivated young people to lead the different units'
	Distance learning time schedule	Increase the time for participation Reduction of synchronous time to avoid loss of attention Dedicated moments Sequential units Practice First units	'The length of the lesson could be increased slightly to allow for effective participation by all; if this were not the case, I believe the purpose would not be met' 'Select some sequential lessons, especially in classes that have already partly experimented with the methodology' 'For the practical part in presence with due precautions' 'If the first lessons were held in presence, a way could be found to recall them at a distance'
	Priorities for in the presence teaching (blended condition)		
	Teachers	Co-presence of two teachers	'I think it is good to have two teachers working together so that the idea of a curricular lesson is removed'
Setting	Physical space	Creative virtual space Dedicate online classroom Ample space in presence	'You can creatively manage the location in front of the screen or in the room to activate games, etc.' 'Create a different space from the other subjects where pupils can access only for LST (e.g., a dedicated classroom)'
	Theme 3.5: Adaptation and priorities	Same strategies but different tools	'In my opinion, the typical LST strategies could also be used at a distance but with different tools'
Adaptation	Tools	Redefinition of group rules Practice Students participation Emotions Social skills Assertiveness Digital competences	'New activities management rules can be created' 'We agree together that the only rule that does not change is to put the learnings into practice in daily life' 'Focusing on those that enable certain protective factors to be enhanced (assertiveness, social skills, emotion management)' 'A correct use of the web (respect for privacy, sharing responsibly, reliability of sources and fake news...)'
	Contents		
	Method		
Priorities	Contents		
	Contents		

The third and crucial theme regards all the methods that can be used to provide students with opportunities to practice behavioural skills and techniques. In particular, teachers need to provide specific instructions, describe the activities, give examples, analyse these examples or situations, let students practice referring to specific situations, give feedback and reinforce positive practice, and analyse the practice to share thoughts and clarify the learning outcomes. The study participants suggested specific strategies to achieve these steps, emphasizing the importance of using synchronous and asynchronous learning, asking students to produce interactive materials, and defining the core elements of the activities that need to be guaranteed. Moreover, many of the strategies reported value the possibility of integrating life skill education with daily life to promote life skill practice and have an immediate effect on students' well-being.

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## Discussion

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The COVID-19 pandemic has had a huge impact on schools, and health promotion activities are more important than ever. Life skill education programmes can represent a useful tool to promote students' health and skills to face this difficult situation. However, many obstacles can intervene and new strategies to support health-promoting schools are needed. This study aimed to investigate school educators' opinions about the programme's usefulness and feasibility through distance or blended teaching during the COVID-19 pandemic and to identify strategies and tools for the implementation of the programme through distance teaching in practice.

The perceived usefulness and feasibility were investigated first with three general closed-ended questions. The participants recognized the high value of life skill education at the time of COVID-19, but they showed reticence about its feasibility, particularly through distant teaching. The difficulties related to the programme's practical implementation are particularly relevant, considering that

the participants have high expertise with the programme. To better understand the answers to these closed-ended questions, the perceived usefulness and implementation obstacles were investigated through open-ended questions. The teachers and school principals reported positive effects of the programme on both health and learning outcomes. They referred to the programme's content, the importance of behavioural and transversal skills, the method, and the positive effects on relationships and climate. This result confirms the relevance of life skill education programme to promote health and reduce the negative effects of the COVID-19 pandemic on students. However, many obstacles to programme implementation were identified to be related to interpersonal aspects, student involvement, methods, organization and planning. Most of these issues are strictly linked with distant teaching, but relational elements and active participation by students become more relevant when dealing with health content.

The qualitative analysis also revealed many strategies suggested by the participants related to the teaching method, the curriculum organization and the adaptation needs. In particular, most of the strategies regarded the teaching method and suggested ways and tools to make explicit the educational goals of the work units and activities, foster relationships and cooperative learning, and provide opportunities for students to practice. A characteristic of many strategies reported is to value the students' autonomy in managing their learning processes. In many cases, students are required to prepare materials for the lessons, be creative in sharing experiences, practice without continuous teacher control and be responsible for their learning. This approach has several positive repercussions, both for curriculum organization and teaching and learning. A teaching method that promotes moments of student autonomy would make it possible to take advantage of multiple asynchronous teaching moments and adapt the curriculum according to individual needs.

Furthermore, it would allow for practical work, which is fundamental for life skill education. It would be an opportunity to enhance and validate

students' skills, and it would reinforce mutual support between students. If students were familiar with the programme and responsible, continuous teacher monitoring and assistance would not be necessary, and teachers could play coaching and facilitating roles. This result confirms the importance of redefining the caring role of teachers in remote teaching and the relationship between students, students and contents, and students and instructor [45]. Some authors affirm that this new form of teaching can facilitate the reciprocity between lecturers and students and equalize power relationships [34, 35]. The strategies reported also value the digital tools' relational potential to protect the connections, both between teachers and students and between the students themselves. Actually, one of the merits of digital tools is that they make it possible to maintain a connection with others and encourage the communication necessary for comparison and sharing. Moreover, they make peer modelling possible at a distance, enabling observations between students, observations of common practices and the sharing of behaviour models. Additionally, group work can benefit from the careful use of digital tools. However, the participants underlined the importance of considering the setting created by digital platforms and the implicit message tools and context sent (e.g. privacy, hospitality and creativity). The capacity of digital tools to maintain connectedness and group work is particularly important considering the protective power of good relationships both for health and learning [24, 37, 46]. In particular, many strategies suggested aimed to maintain informal resources that often lack in online teaching [34].

The results also showed the relevance of online teaching planning to define a pedagogical model, integrate different strategies (e.g. synchronous and asynchronous) and instructor roles [34, 38, 46–48].

Finally, the strategies identified provide some interesting inputs for blended teaching. The participants reported the importance of in-presence teaching in a way that allows students to familiarize themselves with the programme and its method and to create an adequate climate.

The activities at a distance will benefit from explicit links to this previous experience. Moreover, distance teaching allows practising the skills and simulating the techniques in the students' context, reinforcing the connection between the programme and everyday life. Mobile phones use in teaching could offer innovative opportunities in this direction [36].

It is interesting to note how the study participants themselves could respond to their perceived obstacles by proposing strategies that could circumvent them. In particular, for those obstacles listed in the theme 'interpersonal aspects', direct response strategies can be found by referring to the strategy theme 'methods to foster relationships and cooperative learning'. The participants were able not only to identify ways to compensate for the distance but also to activate students and allow them to participate both with synchronous and asynchronous methods. The same conclusions can be applied for obstacles related to student involvement. Even the lack of privacy in the distant teaching setting was considered, showing detailed attention to learning situations in which students engage personally. The obstacles related to the method were also widely answered in the strategy theme about 'methods to provide opportunities for students to practice', and organizational problems have a special theme in the strategies data. The obstacles that are not directly addressed in the text refer to access to devices and connections. This issue needs policy-level intervention under the jurisdiction of ministries and local governments, not teachers. This strong link between the obstacles and the strategies identified reflects how school educators are improving their skills to cope with the crisis. The use of a well-structured programme and specific tools and the valorization of teachers' expertise have activated a capacity building process that may be useful when the pandemic is under control.

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### Limitations

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Data were collected at the end of a challenging and unexpected school year. The first impact with



distance learning was not positive and required a good deal of flexibility and change. The perceptions collected may change after a longer experience with this new form of teaching.

A second limitation concerns the sample. The school staff involved belong only to the Lombardy region and have worked with the LST programme. However, the participants were accurately selected based on their expertise. Most of them have been involved in past initiatives with respect to LST or other health-promoting school initiatives. They have been implementing the programme for a long time and have contributed to health-promoting school development.

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## Conclusions

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Life skill education can represent a strategic approach to promote students' health and well-being during the COVID-19 pandemic. However, in the literature, many obstacles and challenges have been identified in implementing this type of programme. The results of this study showed the importance of investing energy to overcome these difficulties. Teachers and principals value life skill education to achieve both health and learning objectives. Moreover, the potentialities and critical points identified should be considered to develop strategies and tools to promote and support life skill education implementation and a health-promoting school approach. Finally, the qualitative analysis has made it possible to identify strategies to overcome organizational and methodological obstacles. These strategies can be used in all teaching activities to promote active and cooperative learning approaches, customize teaching methods according to individual characteristics, foster inclusion and equality, and develop a curriculum to encourage health promotion during this crisis. Moreover, many of the strategies identified may also be useful in the future to integrate digital tools into teaching. Schools and teachers must move from an 'emergency remote teaching' to a well-planned and designed online teaching [34, 35].

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## Conflict of interest statement

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None declared.

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