MLS - EDUCATIONAL RESEARCH

http://mlsjournals.com/Educational-Research-Journal

ISSN: 2603-5820



How to cite this article:

Gamba Páez, M. Á. (2023). Apropiación de la salud en la escuela a través del aprendizaje-servicio. *MLS-Educational Research*, 7(2), 73-87. 10.29314/mlser.v7i2.1446.

APPROPRIATION OF HEALTH IN SCHOOL THROUGH SERVICE -LEARNING

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Abstract. In Colombia, health education (HE) has been the responsibility of health personnel, which has given it an instrumental and hygienist approach, in which education is secondary. For this reason, HE is a pending commitment in the educational system, which is why this research asked how to propose elements of reflection and appropriation of health in the school based on Service-Learning (SL). SL is a pedagogical approach that develops academic objectives, but at the service of solidarity interests, i.e., the emphasis is not on indoctrination about health, but on the mediations and social networks that are forged during the search for it. This study was conducted through a research+creation methodology, which resulted in the construction of an open-access hypermedia. The content of the hypermedia was based on relational communication for health, popular education for health and health as a counter-hegemonic concept, that is, as the capacity to fight against the limitations of the lives of individuals and the communities to which they belong. The product was developed with the content editors Netex Learning Maker and Genially and the organization of the contents within the hypermedia responded to the WebQuest logic. The finished product was socialized with teachers and students from two educational institutions, who made a positive evaluation of the resource as a starting point for a comprehensive school health education program.

Keywords: health education (HE) service-learning (ApS), relational communication for health, WebQuest.

APROPIACIÓN DE LA SALUD EN LA ESCUELA A TRAVÉS DEL APRENDIZAJE-SERVICIO

Resumen. En Colombia, la educación para la salud (EpS) ha estado a cargo del personal sanitario, lo que le ha dado un enfoque instrumental e higienicista, en el que la educación tiene un papel secundario. Por lo anterior, la EpS es un compromiso pendiente en el sistema educativo, motivo por el cual esta investigación se preguntó cómo plantear elementos de reflexión y apropiación de la salud en la escuela a partir del Aprendizaje-Servicio (AS). El AS es un enfoque pedagógico que desarrolla objetivos académicos, pero al servicio de intereses solidarios, es decir; que el énfasis no es el adoctrinamiento sobre la salud, sino, las mediaciones y las redes sociales que se forjan durante su búsqueda. Este estudio se realizó a través de una metodología de investigación+creación, que resultó en la construcción de un hipermedia de acceso libre. El contenido del hipermedia se fundamentó en la comunicación relacional para la salud, la educación popular para la salud y la salud como concepto contrahegemónico, es decir; la capacidad de luchar frente a los limitantes de la vida de los individuos y de las comunidades a las que pertenecen. El producto se desarrolló con los editores de contenido Netex Learning Maker y Genially. La organización de los contenidos dentro del hipermedia respondió a la lógica WebQuest. El producto

finalizado se socializó con docentes y estudiantes de dos instituciones educativas, quienes hicieron una evaluación positiva del recurso como punto de partida para un programa integral de Educación para la Salud escolar.

Palabras clave: Educación para la salud, Aprendizaje – Servicio, Comunicación relacional para la salud, WebQuest.

Introduction

In Colombia, at the end of the 20th century, Law 100 of 1993 included health promotion and education (hereinafter EpS) among the services to be covered by the General Social Security System (MSPS, 2008). At the beginning of the 21st century, Resolution 0425 of 2008 defined the Collective Intervention Public Health Plans. These plans set forth promotion and education actions that should be designed and implemented by the State Health Care Providers Institutions (IPS).

This has meant that health promotion and education actions have been entrusted to health personnel, which is why they have focused on education based on the dissemination of knowledge with a medicalized approach, i.e., centered on disease and oriented towards prevention rather than on pedagogical actions and information, education and communication strategies for health (Mantilla, 2011).

In contrast to the MSPS, the Ministry of National Education (hereinafter MEN), in charge of guiding the country's educational activities, has not established regulations on EHP in the school setting, which allows inferring that health is a pending commitment on the part of Colombia's educational institutions, which base a large part of their activities on the guidelines issued by this regulatory body.

In order to fulfill part of this commitment, the present research aimed to generate elements of reflection and appropriation of health in the school from a hypermedia resource based on the AS, a pedagogical trend based on the achievement of academic objectives, but at the service of solidarity objectives.

Theoretical framework

To provide a foundation for hypermedia, the theoretical relationships established between health from the Communication-Education field (Huergo, 2009), EpS with a Popular approach (Zea 2007 and 2019), Communication for Health with a relational perspective (Díaz, 2011; Silva Fontana Rosa 2015), and the relationship between education, communication and health (Hernández, 2014; Bañuelos, González and Ramírez, 2016; Choque, 2005; Estévez and Delgado, 2018) were reviewed. These linked areas are representative because, as will be shown below, the emphasis of each is on health that is built, learned and taught in context, without a diffusionist spirit.

During this tracing, theoretical-practical inconsistencies were evidenced in each case: EpS is formulated from popular education, but its activities are based on a concept of health that does not take into account the context or the needs of the people (Chamorro 2010, Serrano 2012, Peñaranda, López and Molina 2017,). For its part, Communication for Health (CoH) has theoretically focused on a participatory paradigm in which communities are central actors, but in practice CoH is informative, diffusionist and hegemonic (Gómez, 2018) and is at the service of universally desirable situations, which assume for all the same circumstances and capabilities (Silva F, R. 2015). With this background, we proceeded to define the concepts under which the hypermedia product would be framed.

The longest standing definition of health is the one proposed by the World Health Organization (hereinafter WHO), which considers it as: "A state of complete physical, social and mental well-being and not merely the absence of disease or infirmity" (WHO Constitution, 1946). Health, therefore, is seen as a resource for daily life, not as its goal; it is a positive concept that emphasizes social and personal resources as well as physical capabilities. (WHO, 2012, p. 13)

According to the Universal Declaration of Human Rights (1948), health is a right, since every individual should be able to have access to a standard of living adequate for his or her health. The same is stated in the Ottawa Charter, which also states that this right depends on conditions such as: peace, possession of economic resources, access to food and shelter, development in a stable ecosystem, sustainable use of resources, promotion of favorable social and economic conditions, physical environment, individual lifestyles and health, and access to health services (WHO, 1986).

In the words of Huergo (2009), this imaginary about health can be considered the result of a hegemonic health system, which does not nuance the circumstances of communities and which distances itself from the adverse living conditions that people face. He explains that, in hegemonic systems, health equals scientificity, objectivity, technicality, truth, meanings and ignores the historical-social conditions of a community (p. 5). Therefore, he proposes that health interventions should be articulated with the cultural conditions of the communities, in order to develop counter-hegemonic policies, that is, models in which a social hegemony is conquered from another construction of meanings.

Therefore, this research+creation focused on producing a hypermedia in which to reflect on the community's conceptions of health, as prior knowledge for any other communication and health education activity.

With this basic conception of health, the next step was to establish a coherent EpS plan. WHO understands HPE as the set of "consciously constructed learning opportunities involving some form of communication designed to improve health literacy, including the enhancement of knowledge and the development of life skills, leading to individual and community health" (WHO, 2012, pp. 59 - 60).

In Colombia, the Conceptual and methodological framework for the development of health education of the Integrated Health Care Routes - RIAS - defines HEE as

The pedagogical process (dialogic and intentional) of knowledge building and learning that, through the dialogue of knowledge, aims to build or strengthen the potential of individuals, families, communities and organizations to promote health care, manage health risk and positively transform the environments in which they live. (MINSALUD, 2018, p. 15)

The pedagogical perspective of EfS in the RIAS is based, among others, on Popular Education (PE), which provides EfS with the possibility of realizing its purposes. According to Freire (2004), PE is aimed at the reflection and realization of new social realities, and involves mobilization for transformation through dialogue, participation, training of critical subjects, and community organization.

With this manifest relationship, the EpS that served as the basis for the development of the hypermedia resource dealt with learning opportunities that involve communication to identify and strengthen the perception that people and the communities to which they belong have about health; these learning opportunities are conceived as those that promote reflection on reality for the sake of its transformation, through dialogue, community participation and the formation of critical subjects. Now, thus understood, PHE requires adequate Health Communication strategies (HcH). According to Díaz (2011) there are two widely used perspectives of SCP: informational and relational.

The informational perspective emphasizes the diffusion of innovations and modernization, which highlight the transmission, acquisition and changes in knowledge, attitudes and beliefs about health. In the relational perspective, on the other hand, the conditions of production, circulation and recognition configure a certain socio-cultural reality, whose understanding is based on two key elements: the mediations through which social relations are constructed, and culture as the ground that fertilizes (and conditions) these relations (Díaz, 2011). In this sense, the health communication strategies used in hypermedia leaned towards the relational perspective, focused not on informing nor on the media for this purpose, but on the mediations through which the social network is constituted.

In order to align and apply the above conceptions of Health Education and Communication, the pedagogical proposal (i.e., the way of teaching and learning the contents of health education and communication proposed in the hypermedia) was Service Learning (hereinafter referred to as SL), which consists of learning through service to the community. According to the Latin American Center for Solidarity Learning and Service CLAYSS, the ApS is:

(...) the solidarity service aimed at attending in a limited and effective way to real and felt needs with a community and not only for it; actively led by the students from the evaluation approach and intentionally articulated with the learning contents (Tapia, 2009).

Thus, in the PHE practices developed from the SA, the service contributes to "the qualitative improvement of community health" and learning is consolidated through knowledge "related to health or derived from carrying out a group project and doing so with a dimension of service to the community". (Associació Centre Promotor d'Aprenentatge Serve, n.d., p. 5).

In summary, the review of theoretical and practical antecedents provided the basis for a digital media product, -a hypermedia- whose AS pedagogical approach, which emphasized SBE from popular education, and which applied relational communicative strategies.

Method

The modality under which the product of this study was developed was research+creation, understood as "creative and systematic work carried out with the objective of increasing the volume of knowledge (including knowledge of humanity, culture and society) and conceiving new applications from the available knowledge" (FECYT, 2015, p. 47).

The product of this research was a hypermedia resource, that is, "the sum of hypertext plus multimedia" (Scolari, 2008, p. 113). Here, hypertext is understood as a digitized, reconfigurable and fluid text, made up of nodes (information elements, paragraphs, pages, images, musical sequences) and links between these nodes, references, notes, pointers, "buttons" that indicate by arrows the passage from one node to another..." (Levy, 2007, p. 42); while multimedia is evidenced by "the combination of sound, image and information" (Scolari, 2008, p. 113) and refers to the use of "several supports or several communication vehicles" (Levy, 2007, p. 49). Finally, this product made use of a process of hypermediation, that is, "processes of symbolic exchange, production and consumption that take place in an

environment characterized by a large number of subjects, media and languages technologically interconnected in a reticular way with each other". (Scolari, 2008, pp. 113-114).

In terms of technical features, the hypermedia was developed with the HTML 5 editor *Netex learning maker*. Among the resources included are images and videos for free use and purchased under subscription, videos developed for hypermedia, audio effects, screen recordings and presentations, video-presentations, interactive activities and animations.

Regarding the content of the resource, the hypermedia sections were organized according to the stages of a SA project, adapted from the Latin American Center for Solidarity Learning and Service presented in Table 1.

Table 1

Stages of the Service-Learning project worked on in the hypermedia resource

Stage	Explanation		
Home	At this stage, the hypermedia user encounters the proposed problem		
	question: What is health for my community? and a contextualization of		
	the issue. It also has methodological suggestions and a downloadable		
	document that serves as a rationale, which clarifies the solidarity and		
	academic objectives to be addressed, the project activities, the learning		
	contents and the tentative schedule.		
Planning	At this stage, the hypermedia user finds the project route and a guide		
	document to determine the sources of resources. Within the project path,		
	the suggested product (a podcast) is stated, and how, why, what for and		
	with what it would be made.		
Development	At this stage, the user finds 10 proposed exercises. Each exercise		
	contains interactive activities and instructions to leave evidence of what		
	has been done and to build the final product. Once completed, these		
	exercises provide the user with the tools to solve the question suggested		
	for this project.		
Evaluation	At this stage the user finds material to make a final evaluation and		
and closure	systematization, estimate the impact of the project, celebrate the work		
	done and propose actions for continuity and multiplication of emerging		
	AS projects.		
Note. Adapted from	Note. Adapted from "Believing is Seeing. Manual for supportive teachers and students". Centro Latinoamer		

Note. Adapted from "Believing is Seeing. Manual for supportive teachers and students". Centro Latinoamericano de Aprendizaje y Servicio Solidario-Natura, 2009.

The instructional design of the hypermedia was based on the *WebQuest* (hereinafter WQ) logic, a didactic approach that proposes to solve questions, tasks, projects or challenges through resources hosted on the Internet. The WQs indicate to students a process to find solutions to the questions posed, based on the analysis, synthesis, comprehension, transformation, evaluation, among others, of the resources consulted on the Internet (Adell, 2004, p. 2).

After the hypermedia was finished, two focus group discussions were held with teachers and directors of two educational institutions in Bogota. The purpose of the focus groups was to determine, through a set of open-ended questions, the ways in which teachers established reflective actions in relation to the product developed. Table 2 shows the categories presented in the Guide for the design, use and evaluation of health education materials of the Pan American Health Organization (PAHO, 1984) and the Guide for the validation of educational materials by Ziemendorff and Krause (2003), which served as an orientation for the questions posed during the discussions.

Table 2

Categories of valuation of the hypermedia resource by the focus groups

Category	Description		
Attractive	It refers to whether the material is appreciated, arouses interest and		
	attracts attention; it also evaluates the relevance of the information		
	channels used.		
Understanding	g It aims to assess whether the materials used are appropriate in languag		
	and comprehension, with the intention that they are understood by the		
	user.		
Identification	Evaluates whether the user identifies with the material, through its		
	characters, scenery, costumes, sounds, etc. If the group does not		
	identify, the objectives of the material will hardly be fulfilled.		
Acceptance	Verify whether the ideas and proposals put forward make sense to the		
	user or are feasible.		
Induction to	It assesses whether the content of the material contributes to a change		
action	in a reality, in a behavior or in the conception of a meaning.		

Note. Adapted from *Guía para el diseño, utilización y evaluación de materiales educativos de salud*. Pan American Health Organization, 1984; and *Guía de Validación de Materiales Educativos: Focusing on Health Education materials*. Ziemendorff and Krause, 2003.

Results

Hypermedia provides the user with tools to solve the question "What is health? Although EfS in this product could have focused on addressing needs such as sexual and reproductive health, healthy eating habits or the prevention of psychoactive substance use, we wanted to address the fact reported by several authors, who state that EpS activities are based on a concept of health that does not take into account the contexts or health needs and in which education has an instrumental role (Peñaranda, López and Molina 2017, Hernández, 2014), or in which the prevailing conception of health, that of the WHO, is globalizing (Chamorro 2010), totalizing (Serrano, 2012) and hegemonic (Huergo, 2009).

Therefore, it was conceived that the priority was to ask the question: What is health? In this sense, Huergo's (2009) suggestion was followed, which consists of promoting a "counter hegemonic" EHP, which begins by dismantling the dominant meanings about health.

With the theme defined, the hypermedia sections were organized taking into account some suggestions from the Latin American Center for Solidarity Learning and Service. These adapted sections are initiation, planning, development and evaluation. In the hypermedia there is a preliminary stage, called "Presentation", which is not part of those established within an AS project, but which was placed to provide users with information on the rationale of the product and a quick navigation guide.

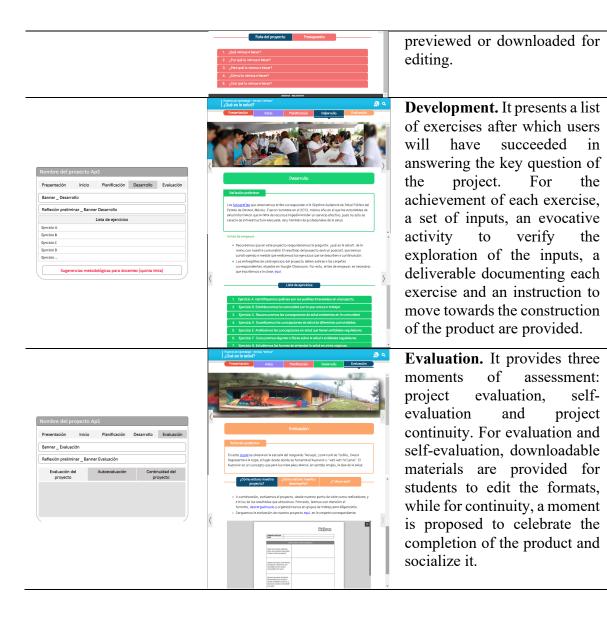
On the other hand, the structure of the hypermedia resource was organized as indicated through the following page layouts or screen plans, also known as *wireframes*. Table 3 shows sections of the hypermedia developed as a final product, which can also be found at the following link <u>https://wetcue1.000webhostapp.com/</u> can be consulted in greater detail.

Table 3

Wireframes of the hypermedia resource and description of the contents per screen

Wireframe	Final screen	Description
Imagen de portada Comenzer	Image: second secon	Cover. It presents the name of the project and a related image. The project was called <i>Wetcue</i> . This word was taken as a tribute to the indigenous communities of Colombia, who have been pioneers in the development of a conception of health in context, which is the main purpose of hypermedia.
Nombre del proyecto ApS Presentación Inicio Planificación Desarrollo Evaluación Banoer_Presentación Reflexión presentación Presentación del recuro Guía rápida de navegación	<complex-block></complex-block>	Presentation. It exposes, through a video, the generalities of the AS project by means of a brief justification. A quick navigation guide is also provided through a menu of video tutorials.
Nombre del proyecto Ap5 Presentado Inicio Planfración Desarrollo Evaluación Banner_Inicio Enner Inicio Conotcamos la situación Preguntémonos Conotcamos la situación Preguntémonos Sugerencias metodológicas para docentes (quinta tinta)	<page-header><text><text><text><image/><image/><section-header><section-header><section-header><section-header><section-header><section-header><section-header><image/><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></text></text></text></page-header>	Home. Contextualizes the problem that gives rise to the project and poses the key question. In addition, methodological suggestions are offered for teachers, including the presentation sheet, which sets out the conditions of mode, time and place in which the project activities will be carried out and specifies the topics and the academic and solidarity objectives to be developed.
Nombre del proyecto ApS Presensación incio Planificación Desarrollo Evaluación Barner_Planificación Retución projektiona Retución poliminar_Barner Planificación Ruta del proyecto Presupuesto Sugerencias metodológicas para docentes (quinta tinta)	Read to a bandle Read to bandle Read to a bandle R	Planning. Clarify to the users what the product of the project will be and why, what for, how and with what they are going to do it. A budget template is also suggested and can be

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Counter-hegemonic concept of health, Popular Education and Relational Communication in hypermedia

In the hypermedia resource, different activities were proposed to allow users to recognize the conceptions of health present in their community. Inputs were also offered in response to Huergo (2009), who points out that, in order to forge an alternative and counter-hegemonic discourse on health, it is important to start from the historical, so as to obtain a kind of genealogy of the present, in the midst of modern culture. Also, to estimate that conceptions of health do not operate on nothingness nor are they foundational.

The above objectives were worked on throughout the exercises. For example, in the exercise "let's recognize the existing conceptions of health in the community", a historical review of the concept of health was presented, health was contextualized in terms of culture, society and idiosyncrasy, and some conceptions of health by reference authors were presented, all with the intention of promoting individual and group reflection on the concept of health.

In another exercise, called "let's socialize the conceptions of health of different communities", we presented what some religious and ethnic groups consider to be health. In the exercise "Let's analyze the conceptions of health held by regulatory entities", the positions on this concept of institutional authorities such as WHO and MSPS were listed, which were

accompanied by the presentation of some contrary positions offered in the exercise "Let's learn about some criticisms on health as understood by regulatory entities".

Finally, the exercise "Let's study the ways of understanding health in other regions" emphasized how, from different customs, health is conceived and experienced. All these exercises were proposed with the objective of cementing the concept of health that hypermedia users can build with their communities, based on the understanding of emerging health ideas and health practices within the health system. This is to understand that positions are not always opposed, but often influence each other and maintain relationships that may even overlap.

It is thus evident that examining different conceptions of health and not issuing one's own concepts without a general overview, appeals to the understanding that this process does not have fixed references and does not necessarily imply authoritarian points of view. To do otherwise would be to ignore the fact that today's ideas of health encompass multiple practices and knowledge that are recognized and defended, although not always put into practice.

However, only by questioning the meanings of health, which, within certain conditions of mode, time and place are hegemonic, will it be possible to "produce language fields that enable collective health experiences, which do not start from any enlightened intelligence or from the fragmented wills of small well-intentioned groups" (Huergo, 2009, p. 18), a commonplace when it comes to education and communication, in which experts position themselves in knowledge and, as its possessors, impart it as if this were what education was all about.

On the other hand, the purpose of the various activities proposed in the hypermedia was to promote dialogue, a fundamental element for PE. Thus, conversation is a tool that recognizes in others subjects with knowledge that are valuable; it also gives education the property of being a negotiation scenario, and it is, mainly, "a recognition of otherness, recognition of the other with whom the world can be transformed" (Zea, 2019, p. 64).

Therefore, the relevance of dialogue scenarios provided by participation mechanisms such as round tables, forums, community meetings, assemblies, town councils, among others, was considered, taking into account that they exhibit several desirable characteristics from PE, among which are the development of cooperative and reflective processes, the collectivization of particular knowledge and the enrichment of collaborative experiences based on individual experiences. Furthermore, in such mechanisms of participation there is a commitment to a critical subject, that is, to assume each person as a reflective being of his reality, who wonders about the possibilities of transforming himself and his circumstances while interacting with others.

Finally, in this hypermedia, by using relational communicative strategies, communication is not the transmission of messages, but the construction of meaning. This process is evidenced by treating the users of the resource as mere receivers of the messages it contains. On the contrary, they become producers of meaning when they give meaning to things and when they act so that these meanings are analyzed, interpreted and accepted by the community to which they belong, through participatory mechanisms such as those proposed in each exercise.

According to the above, relational communication strategies in hypermedia consisted of a three-part process: 1. Users access information about health: their concepts, conceptions, points of view, among others; 2. Users change their representations and perceptions about health based on the information given and through various processes of dialogue, reflection and participation; and 3. Users plan and carry out actions towards change. This triad is characteristic of relational communication and differentiates it from Health Communication strategies framed within the diffusionist and informative paradigm (Díaz, 2010).

Similarly, when users become responsible for the construction of meanings around health, it becomes evident that "they are by no means the only valid interlocutors with the capacity to influence different population groups to promote the adoption of healthier habits and behaviors" (Díaz, 2010, p. 22). With this, all social actors producing meaning are taken into account, which breaks down barriers and can have a greater impact on the population.

Social appropriation of the product

One of the objectives of Research+Creation is to present the results and ensure the appropriation or transfer of a product for the benefit of society at large (Ministry of Science, Technology and Information, 2020, p.12).

With this in mind, after the hypermedia was finished, two focus group discussions were held with teachers and school administrators from two educational institutions: a private school with a vulnerable population in a low-stratum locality in Bogotá, calendar A; and a private school with a privileged population in a medium-high stratum locality in Bogotá, calendar B. The evaluation of the focus groups is summarized below.

- Attractive. The teachers agreed that the product is attractive. The interactivity, the variety of resources proposed, the different communication channels and the rationale of the project were positively evaluated.
- Understanding. The teachers understood the nature of the project and its purposes. They considered that the instructions at each stage were clear and that the proposed product, the podcast, was feasible.
- Identification. The teachers felt that the situations, images, scenarios and issues raised were familiar to them. It was evident that the teachers at calendar A school identify more with the product than those at calendar B school. In addition, teachers at school calendar A mentioned that their students might also identify with the product.
- Acceptance. Calendar A school teachers stated that the question of what health is is relevant, but as a prerequisite for a project of more interest to them: identifying and addressing the health needs of the school community, which are pressing, especially in relation to nutrition, sexuality and the consumption of psychoactive substances. On the contrary, the teachers of calendar B school expressed that this question was relevant. Both institutions considered that it would be valuable to implement the project, taking into account that they develop PBL Project Based Learning strategies, and that they could take this project as a pilot or as an example for other initiatives.
- Induction to action. Teachers at the two schools felt that the implementation of this project would bring about changes in the ways in which school communities understand health. However, given the length of the project, estimated for a full school year, its continuity would be difficult. Therefore, they suggested shortening it, so that it can be developed in a single two-month period, so that in one year not only a concept of community health can be built, but also the health needs in the context can be detected and then actions can be carried out to meet those needs, so that the induction to action is effective.

Discussion and conclusions

It is considered pertinent to begin by saying that this Research+Creation made a contribution to the establishment of theoretical relationships between communication, education and health, taking into account that this interest is emerging, and that it requires more revisions, contributions and explorations.

At the end of this process, it is considered that, although for communication, education and health the interest is to expand, acquire or reaffirm knowledge while intervening and modifying reality, it is necessary to configure the relationship between these three disciplines as an interface where they do not mix, but where their emphases coexist in such a way that they can benefit from each other, an approach that was taken to base the hypermedia product of this Research+Creation.

The above makes sense when reviewing Bañuelos, González and Ramírez (2016), who state that these three disciplines are evidently related, but the substantiation about this relationship is rather scarce, taking into account that:

The intersection between health, communication and education is complex; it is a field still under construction and can and should be adequately aided by technological advances, but it must necessarily have theoretical and epistemic support that gives it its own strength, and not the sole strength of being supported by the separate approaches of each of the disciplinary areas that it tries to group in an interdisciplinary field. (p. 631)

It is proposed the interface from interdisciplinarity, which was achieved in the product of this research+Creation, by including in the hypermedia the designed activities recognizing that "health-oriented communication is the social, educational and political process that increases and promotes public awareness about health" (González and Bañuelos, 2013, cited by Bañuelos, González and Ramírez, 2016, p. 626). This interdisciplinarity is also evident in the specific contents of the hypermedia, such as the project presentation card, located in the "Presentation" screen, which explicitly presents the interdisciplinary relationships between the various exercises proposed throughout the resource.

However, during the development of this product, it became evident that such an initiative, in practice, can contribute to the appropriation of health in a community, not through scientific dissemination or the relationship between science and the public, but through a deep and contextualized reflection on the concept of health and the conscious identification of the needs to which this reflection invites.

However, this contribution was confronted with a strong tendency among educators: traditional health education, focused on disease, inclined to the dissemination of information and detached from the learners' conception of health. This, taking into account the interest of the teachers with whom the product was socialized, focused on the strategies of teaching and learning about health as usual, and interested in the technicalities of the construction of the medium, and not the impacts, implications or instructional design required for the consolidation of the content.

Added to this obstacle is the widespread instrumentalization of educational media. In the hypermedia product of this Research+Creation, a conscious effort was made to base each of the components and contents, without ignoring important elements such as usability, interactivity, accessibility, among others. However, it is evident that the interest of educational users in the use of resources that focus on the form and not on the substance, or on the operational and functional aspects of the media, is more important. Therefore, it is necessary to apply Communication-Education and health strategies in the first instance with teachers, so that they find sense in applying proposals such as those that this Research+Creation makes, so that they can open themselves to the possible inconveniences of continuing to be the ones who decide what students should learn about health, without prompting them so that they themselves, as subjects, ask themselves what health is and what they need to learn about it.

Despite these drawbacks, it can be stated that the realization of the hypermedia highlighted the linking of impactful pedagogical strategies in the design and construction of the product. Specifically, the AS pedagogy is presented as an option to give academic guidelines to a social proposal in the school environment. This is a factor of interest to potential teacher users, for whom solidarity activities are not necessarily an attractive part of their duties, particularly if this type of project is not regulated by the MEN. In turn, the WQ logic offers the possibility of applying one of the various educational trends that have been gaining strength due to the increasingly frequent education through digital media, in which the Internet is not a mere instrument, but acquires pedagogical meaning when teachers guide the search for information and propose actions in which students solve a question, a challenge, an activity or a project based on it.

In addition, it is worth noting that the product of this Research+Creation has a social innovation component, understood as

the process through which value is created for society through innovative practices, management models, products or services that satisfy a need, take advantage of an opportunity and solve a social problem more efficiently and effectively than existing solutions, producing a favorable and sustainable change in the system in which it operates. (National Planning Department, 2012, cited by MinTIC, 2020, p. 23).

In view of the above, hypermedia is a product that takes advantage of several opportunities: the pandemic that brought to the table the issue of the conception and experience of health and being healthy; the opportunity to propose different ways of educating for health; and the *boom in* education strategies mediated by information and communication technologies.

In addition, the implementation of hypermedia could help "generate and strengthen social relationships, empathy, and a sense of belonging through responsive experience." (MinTIC, 2020, p. 20). This is due to the use of the various strategies proposed by the resource, such as participation mechanisms, reflections mediated by dialogue, cooperative learning and, mainly, the AS on which it is based.

The first step towards the previous objective was taken by constructing the medium, appealing to the social mediations it triggers. The continuity of this project is given by the opportunities to implement hypermedia with different working groups.

In addition, it is considered that this product should be part of a Health Communication-Education Program, in which, from this first HA project, at least two more projects will be triggered: one to identify the health needs of the user communities and the other to meet those needs. For this to be possible, it is important to have the support of public or private organizations that make these new developments possible.

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Date received: 17/07/2022 **Revision date:** 08/09/2022 **Date of acceptance:** 20/09/2022