

Estrategia para la implementación de la educación mediática en escuelas públicas de nivel básico

***Strategy for the Implementation of the Media Literacy in Basic Level Public
Schools***

***Estratégia para a implementação da educação para a mídia em escolas públicas
básicas***

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Resumen

Las transformaciones que actualmente experimentan la cultura y la comunicación, producto del acelerado desarrollo de la tecnología y de la sociedad de la interacción, obligan a revisar la manera en que niños y adolescentes son educados. Ya no basta con dotarlos de conocimientos para que se desenvuelvan en lo social y en lo laboral, sino que necesitan aprender a vivir y a cuidarse a sí mismos en un entorno de medios digitales y de internet, donde construyen gran parte de su realidad e identidad. Por este motivo, el propósito del presente estudio fue diseñar una estrategia para la implementación de la educación mediática en instituciones educativas públicas de nivel básico del área metropolitana de Monterrey, mediante un diagnóstico de competencias mediáticas en materia de seguridad como un posible primer paso para su aplicación a nivel nacional. La investigación fue de carácter descriptivo, de corte cuasiexperimental y con una metodología mixta. Para recolectar la información se utilizó una encuesta. A partir del total de escuelas públicas primarias de la zona conurbada, se calculó una muestra de 298 planteles, específicamente con estudiantes de cuarto, quinto y sexto grado de primaria. Asimismo, se realizó un cuasiexperimento con tres grupos de control y con tres de tratamiento, con los cuales se aplicaron técnicas de educación popular, como

problematización, entrevista simple y video para el cambio social. Los resultados recabados permitieron dibujar el siguiente perfil de hábitos: 95 % de los 15 830 alumnos encuestados emplean redes sociales durante casi dos horas al día, principalmente en casa, por las tardes y en un dispositivo móvil (celular o tableta). Asimismo, 73 % de los participantes indicó que empezaron a emplear estas redes entre los 6 y los 8 años de edad, y que sus portales favoritos son YouTube, Facebook y WhatsApp, donde comparten fundamentalmente videos, fotografías, imágenes y música. Igualmente, de cada 10 niños y adolescentes, 3 no conocen los riesgos que existen en esas plataformas, 4 no saben de las medidas preventivas que deben tomar en ellas, y 6 interactúan en redes solos sin supervisión. Entre los factores que determinan las estadísticas están la escasez de contenidos en dicha materia en los programas académicos, así como que ambos padres trabajen. Por último, se puede afirmar que las competencias en materia de seguridad se incrementaron en los tres grupos intervenidos gracias a la educación mediática, por lo que se recomienda que se incorpore a las escuelas públicas primarias a través de una estrategia transversal que involucre a los tres poderes de gobierno, los medios de comunicación nuevos y tradicionales, y un plan piloto en las aulas.

Palabras clave: competencias mediáticas, educación mediática, educación popular, redes sociales, seguridad.

Abstract

The transformations currently experienced by culture and communication, as a result of the accelerated development of technology and the society of interaction, make it necessary to review the way in which children and adolescents are educated. It is no longer enough to provide them with knowledge to develop socially and, later, work, because they need to learn to live and take care of themselves in an environment of digital media and internet in which they build a large part of their reality and identity. The purpose of this study was to design a strategy for the implementation of media literacy in public educational institutions at the basic level in the metropolitan area of Monterrey, through a diagnosis of media competencies in security matters, as a possible first step for its national implementation. The research was descriptive, quasi-experimental cut and mixed methodology. A survey was used to collect information. From the total of primary public schools in the metropolitan area, a sample of 298 schools was calculated of the

fourth, fifth and sixth grades. A quasi-experiment was also carried out with three control groups and another three treatment groups in which popular education techniques were applied, such as problematization, simple interview and video for social change. The results provided a profile of habits: 95% of the 15 830 students analyzed use social media, an average of almost two hours a day, mainly at home, in the afternoon and on a mobile device, such as a cell phone or tablet; 73% started in them between six and eight years of age. The favorite sites are: YouTube, Facebook and the WhatsApp, where they basically share videos, photographs, images and music. Of every 10 children and adolescents: three do not know the risks that exist in those platforms, four do not know of the preventive measures that they must take and six interact in networks alone and without supervision. Among the factors that determine the statistics are the scarcity of content in the subject in academic programs and the fact that both parents work in half of the homes. The security competencies were increased in the three groups intervened thanks to media literacy, so it is recommended to join the public primary schools through a cross-cutting strategy that involves the three branches of government, traditional media and new ones, and a pilot plan in the classrooms.

Keywords: media competitions, media literacy, popular education, social media, security.

Resumo

As transformações vivenciadas atualmente pela cultura e pela comunicação, fruto do acelerado desenvolvimento da tecnologia e da sociedade de interação, tornam necessária a revisão do modo de educar as crianças e os adolescentes. Não basta fornecer-lhes conhecimento para se desenvolverem socialmente e, posteriormente, trabalharem, porque precisam aprender a viver e cuidar de si mesmos em um ambiente de mídia digital e internet em que constroem grande parte de sua realidade e identidade. O objetivo deste estudo foi projetar uma estratégia para a implementação da educação para a mídia em instituições públicas de ensino no nível básico da área metropolitana de Monterrey, através de um diagnóstico de competências de mídia em questões de segurança, como um possível primeiro passo para sua aplicação nacional. A pesquisa foi descritiva, quase experimental e mista. Uma enquete foi usada para coletar informações. Do total de escolas públicas primárias da região metropolitana, uma amostra de 298 escolas foi calculada na quarta, quinta e sexta séries. Um quase-experimento também foi realizado com três grupos de controle e três grupos de tratamento nos quais foram aplicadas técnicas de educação popular, como

problematização, entrevista simples e vídeo para mudança social. Os resultados forneceram um perfil de hábitos: dos 15 830 alunos analisados, 95% utilizam redes sociais, em média quase duas horas por dia, principalmente em casa, no período da tarde e em um dispositivo móvel, como celular ou tablet; 73% iniciaram neles entre seis e oito anos de idade. Os sites favoritos são: YouTube, Facebook e WhatsApp, onde basicamente compartilham vídeos, fotografias, imagens e músicas. De cada 10 crianças e adolescentes: tres não conhecem os riscos que existem nessas plataformas, quatro desconhecem as medidas preventivas que devem tomar e seis interagem em redes sozinho e sem supervisão. Entre os fatores que determinam as estatísticas estão a escassez de conteúdo no assunto em programas acadêmicos e o fato de ambos os pais trabalharem em metade dos lares. As competências de segurança foram aumentadas nos três grupos intervencionados graças à educação para a mídia, por isso recomenda-se a aderir às escolas primárias públicas através de uma estratégia transversal que envolve os três ramos do governo, a mídia tradicional e novos, e um plano piloto nas salas de aula.

Palavras-chave: competências de mídia, educação para a mídia, educação popular, redes sociais, segurança.

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Introduction

The Internet is a technological resource that although it is essential to meet various current activities, it also constitutes a risk to the integrity of people, mainly for so-called digital natives (Prensky, 2001), that is, children and adolescents who tend to skillfully manipulate this tool, but due to the few security filters required by Web sites, they can access material that is not suitable for them. For this reason, the education of our times should not only focus on the four pillars proposed by Delors (1996) (that is, learn to know, learn to learn, learn to live and learn to be), but must go beyond towards learning to live in the virtual environment generated by the media (Pérez Tornero, 2009).

In this regard, García-Ruiz, Duarte and Guerra (2014) consider that they must learn with, about and before the media in order to develop critical and reflective capacities about the multiple

sources of information, especially those most used by digital natives: networks social. These means of interaction are defined by Kaplan and Haenlein (2010) as those "Internet-based applications that are developed on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user generated content" (pp. 61), which allows creating virtual communities on common interests that, however, can have implicit contact, privacy and commercial risks (Livingstone, 2007).

However, in the specific case of Mexico, more than a third (34%) of the 71.3 million Internet users (National Institute of Geography and Information Statistics [Inegi], 2018) are under 18 years of age (Asociación Mexicana de Internet, 2018), an indicator that although it is positive because it demonstrates the levels of digital inclusion in the country, they also serve to warn about innumerable cybercrimes, which can generate disastrous consequences for physical, sensory, motor, affective-emotional, cognitive development and social of those affected.

In fact, according to estimates of the Mexican Internet Association (October 22, 2015), in the country one in five children is contacted through the Web by a predator or a pedophile, and of them only 25% account for it. His parents. Likewise, and in agreement with the Coordination for the Prevention of Electronic Crimes of the Scientific Division of the Federal Police (Senate of the Republic, 2014), the two most investigated behaviors in tort of Mexican infants that are specified by a computer means are the child pornography (with 55%) and disappearance (with 24%), followed by threats, defamation, cyberbullying, grooming, sexting, sextorsion, sex tourism, lenocinio, corruption, trafficking and pedophilia.

The Federal Police, in response to a request for transparency (2018), indicated that in 2010 they received 230 reports for cybercrimes committed against minors, an amount that increased 189% in seven years, without counting the black number, as in 2017 attended 665 cases of this type. They highlight child pornography, harassment and threats. In particular, Nuevo León is one of the areas with the highest incidence of child pornography production in Mexico (Attorney General's Office of the Republic [PGR], 2013).

Despite these figures, Bueno de Mata, Munive and Martín Ruani (2014) agree that surfing the Internet can not be banned, but encouraged and oriented towards obtaining social benefits, since for the development of the country citizens are required participatory, analytical and critical, which will have to emerge from the zeta and alpha generations, constituted by those born from the second

half of the 1990s and from 2010, respectively. For this, however, an education is required that is based on the principles of media competence, understood as the domain of knowledge, skills and attitudes towards the media that relate to six dimensions with their own standards of measurement in analysis. and expression: language, technology, reception and interaction processes, production and diffusion processes, ideology and values, as well as aesthetics (Ferrés and Piscitelli, 2012). To these, however, there would be the need to add a seventh dimension: security, which is based on two indicators: knowing and identifying the risks that exist in media and platforms (such as social networks), as well as understanding and practicing preventive measures when using them

Given this precision, media education could be conceived as the process of teaching and learning about the proper use of media (Buckingham, 2003), which implies the development of the analytical and creative capacities of children, adolescents and young people. to use different platforms in a safe and informed way, among them social networks (Aparici, Campuzano, Ferrés and García, 2010). This type of education, in other words, allows you to acquire skills to apply multiple languages, create and read critically, interact with other people in a real or virtual way, participate in communications through different media, and connect at any time with different groups and communities, all protected and supervised as much as possible (Aparici et al., 2010).

From this reasoning, the present investigation has been designed on the basis of the following general question:

- What strategy can be implemented to incorporate media education in public educational institutions at the basic level in the metropolitan area of Monterrey, based on a diagnosis of media competencies in terms of security?

This main question served as a basis for formulating the following specific questions:

- What is the average level of media skills in the safe use of social networks by students in the public elementary schools of the metropolitan area of Monterrey?
- What are some of the factors that influence this level of media skills?
- What are the effects of implementing media education in the last three grades of basic academic education?

The general objective of this study, therefore, was to design a strategy to implement media education in public educational institutions at the basic level of the metropolitan area of Monterrey, through a diagnosis of media competencies in security matters as a possible first step for its application national. The specific purposes were these:

- Determine the importance of media education during childhood to assess the relevance and feasibility of integrating it into the academic programs at the primary level.
- Diagnose the level of media skills in the safe use of social networks by primary school students, based on the knowledge of risks and preventive measures in these platforms.
- Identify the profile of habits, digital inclusion and family dynamics in the use of social networks of elementary school students.

The general hypothesis was the following: a transversal strategy involving the three branches of government, the media (new and traditional) and civil society organizations, based on a pilot plan in the classrooms, would allow the incorporation of media education in the public educational institutions of the basic level of the metropolitan area of Monterrey, and in this way raise media competences in terms of safety in students, which would serve as a first step to apply at the national level.

Method

In order to meet the objectives set, a descriptive research was designed, with a quasi-experimental cut and mixed methodology; Likewise, a triangular model was used that integrated the positivist, interpretative and hermeneutic-reflective paradigms (constructivist approach). To achieve the specific purposes, a descriptive survey (between September and December 2017) was applied to the selected sample. Likewise, the questionnaire was used to answer the first two specific questions of this work.

The sample size for the descriptive survey was calculated based on the total number of public elementary schools in the Monterrey metropolitan area. Considering a confidence level of 95% and a maximum error of 5%, a basic formula of finite population was established in 298 schools. The participating institutions were selected by means of a probabilistic sampling, of stratified random type provided, according to the variable location to be representative of the New

Leon area. Specifically, 10 municipalities were covered: Monterrey, Guadalupe, Apodaca, San Nicolás de los Garza, General Escobedo, Santa Catarina, Garcia, San Pedro Garza García, Cadereyta and Santiago. After listing the selected schools and requesting the corresponding permits, the objective of the investigation was presented to the directors of each of the institutions, as well as to the state authorities.

During August 2017, a group of university students from the Faculty of Communication Sciences of the Autonomous University of Nuevo Leon (UANL) was trained, who collaborated in the application of the instrument, which was developed from theoretical elements contributed by different authors in order to evaluate media competences for the safe use of social networks by minors. This preliminary version was pilot tested, experts consulted and corrections to ensure their understanding. The final version was applied to 15 830 fourth, fifth and sixth grade students. The four sections of this instrument were the following:

1. Sociodemographic characteristics: Sex, age, school grade, family and housing.
2. Digital inclusion and habits of use of social networks: Internet access, devices used, preferred platforms, seniority, time of use, supervision, talks with adults, among others.
3. Media competence: Knowledge and awareness of existing risks when using social networks.
4. Media competence: Knowledge and practice of preventive measures for the safe and informed use of social networks.

The questions had multiple choice answers to facilitate the processing of the data. The last two sections included four open questions to capture the narrative of origin and expand the information. The collection instruments were validated internally and externally. In the six questions of the questionnaire, which were of scalar format to evaluate their internal consistency, the Cronbach's alpha was used in the measurement of reliability (Abreu and Núñez, 2014). The resulting coefficient was .699, which is considered high and adequate.

In order to discover the effects of implementing media education in the last three grades of basic academic training, a quasi-experimental intervention was carried out with three treatment groups (fourth, fifth and sixth grade of primary school) and a control group for each of the same grade. of the public school Eduardo A. Elizondo, of the municipality of General Escobedo, which

was chosen in an intentional non-probabilistic manner, that is, based on the facilities granted and with the requirement that there be at least two groups of each of the three degrees of study. In this way, it was foreseen that there would be a treatment section and a control section at each level, which served to guarantee the greatest similarities and to reduce the bias in the comparison of results.

Likewise, a longitudinal design was chosen because for the measurement instruments of the quasi-experiment there was an initial and a final test that was applied to both the treatment and control groups. Specifically, the variables to be studied were recorded in the two months set (September and December 2017) to assess the impact. Once the school and the specific groups were determined, the problematization stage continued, in which the principals, teachers, parents and students of the treatment groups were talked about the activities that would be developed according to the timetables of the school.

After preparing the contents, materials and tools, the treatment groups were given an intensive training course on media skills for the safe and informed use of social networks. This phase lasted three months (from September to December 2017), period in which field observations were recorded. The sessions with each of the grades were held every week, lasting between 40 minutes and one hour. In each session techniques of pedagogy by Paulo Freire (1970) and popular communication by Mario Kaplún (1983, 2002) were used, that is, participatory diagnosis, problematization, free discussion and video for social change (Mirabilia, 2009), all these are grounded in the dialogic model of Vygotsky (1979), where learning "is based on interactions and dialogue as key tools" (Valls y Munté, 2010, p. 12).

It is worth noting that the theoretical foundation of popular communication is "in the practical experiences that, even on a small scale, try to capture in the here and now that new democratic and egalitarian communicational order" (Kaplún, 1983, p.40). The popular movement does not communicate through communication itself, but around a transformative process in which the communication component merges with the pedagogical and the organizational. Thus, the key indicator to assess the effectiveness, operability and relevance of communication and popular education techniques -which are one- is the degree to which the action of a community is oriented to achieve the proposed change (Kaplún, 1983).

Likewise, it is necessary to emphasize that in order to achieve a true democratization of communication, the people of the community must be trained, so that they can not only broadcast and operate the media, but also receive their messages (media education), since in this process the demystification of the media is based (Kaplún, 1983). In effect, through "micro" practices and experiences of popular education, you learn to manage the media, understand them, master them and preserve security.

Having explained the above, it is worth mentioning that in this work communication-popular education techniques have been rescued, such as video for social change, the generation of own media (such as a school newspaper on the internet) and theater plays, which followed four basic steps:

1. Starting point (introduction).
2. Observation-review or production of media material.
3. Deepening (analysis through free discussion).
4. Conclusive reflection for the return to an improved practice.

The video for social change was the main technique used in the cuasiexperimento treatment groups (Mirabilia, 2009). The videos of cartoons and adapted to the age of the infants were free of rights and taken from the Friendly Screens organization. With them, bidirectionality in communication was promoted, which exists and originates when the message is transmitted in a dialogical way and a critical reflection is fostered in the receiving subject. Dialogue, therefore, is not generated only with others, but the educator must encourage each student to dialogue with himself, which happens when thinking about a certain action (Sarramona, 1997).

On the other hand, some parents and teachers were also conversed, and all the observations of the field tasks were recorded. Only the initial test was applied to the control groups and no contact was made with them until the end of the quasi-experiment. After the quarter, the final test for contrast was applied to the treatment and control groups.

For the decoding of the answers in the questionnaires, the binary code was used, while for the crossing of variables, the cross-sectional method was used (Serrano, 2013). From a simple correlation of these, tables and graphs were derived. Finally, the reports of the intervention techniques activities were reviewed to obtain inferences.

Finally, and in parallel to all the procedures described, the Media Project was developed (detailed below) with legislators from Nuevo León and federal deputies from the country.

Results

Next, the results obtained are presented to meet the established objectives and to answer the research questions.

Quantitative analysis

First, the characteristics (in absolute and relative frequencies) of the 15,830 students of the 298 schools to which the survey was applied were defined. As shown in Table 1, 95.8% of children are in the range of 8 to 11 years of age. In this regard, it is worth noting that both males and females had practically the same proportion of students, which were distributed in a third of the total in each of the three grades selected for this work (fourth, fifth and sixth grade of primary).

Tabla 1. Edad de los encuestados

Edad	Número	Porcentaje %
8 años	1377	8.7
9 años	4862	30.7
10 años	4917	31.1
11 años	4009	25.3
12 años	450	2.8
13 años	51	0.3
14 años	38	0.2
No especificado	126	0.8
TOTAL	15830	100.0

Fuente: Elaboración propia

Table 2 shows the number of institutions located in each of the 10 metropolitan municipalities of this research:

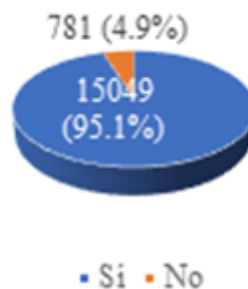
Tabla 2. Municipios en los que se aplicó la encuesta

Municipio	Número de escuelas	Porcentaje %	Encuestas
Apodaca	31	10.4	1746.0
Cadereyta	3	1.0	172.0
Escobedo	41	13.8	444.0
García	7	2.3	1938.0
Guadalupe	35	11.7	2034.0
Monterrey	100	33.6	4763.0
San Nicolás	31	10.4	1684.0
San Pedro Garza García	6	2.0	297.0
Santa Catarina	37	12.4	2427.0
Santiago	7	2.3	325.0
TOTAL	298	100.0	15830.0

Fuente: Elaboración propia

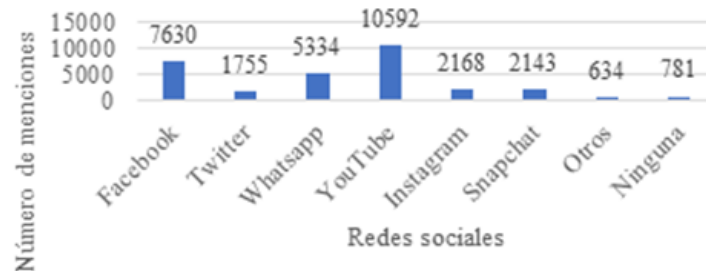
The information collected made it possible to diagnose and create a profile on the use of social networks by minors in the metropolitan area of the Nuevo Leonan capital. It should be noted that in some cases the percentage sum is not 100 or the total number of students because the answers were not mutually exclusive. With this observation, Figure 1 shows that 95.1% of the students analyzed said they used at least one social network, of which the most used were YouTube, Facebook and the WhatsApp application (Figure 2).

Figura 1. ¿Usas redes sociales?



Fuente: Elaboración propia

Figura 2. Redes sociales preferidas



Fuente: Elaboración propia

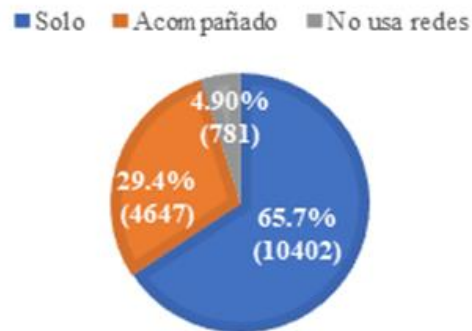
On the other hand, 73% of students said that between 6 and 8 years of age began to use social networks, early stage of childhood characterized by a lack of physical, mental and emotional maturity to face diversity of information that is offered in those virtual spaces.

Also, it was known that the average time that infants spend in social media is 1 hour with 53.4 minutes a day, with prevalence in the afternoon. Likewise, almost 4000 mentions of connection to the Network were reported during the night and early morning hours, which is not suitable for minors to surf the Web.

Also, the participants indicated that they used the networks to do tasks, talk, play and watch and share videos and photos. In fact, what they share most are videos, photographs, images and music.

It also highlights that 6 out of 10 students interact in social networks without supervision (figure 3), which is one of the greatest risks for child safety. Those who said they were accompanied when surfing on those platforms commented that they did it with their parents, siblings or friends, mainly. The majority of children and adolescents (13 346, equivalent to 84%) live with both parents. There are 1255 respondents who live only with their mothers, while 45.7% (that is, 7233 of the minors) have a father and a mother with some paid work activity.

Figura 3. ¿Usas las redes sociales solo o acompañado?



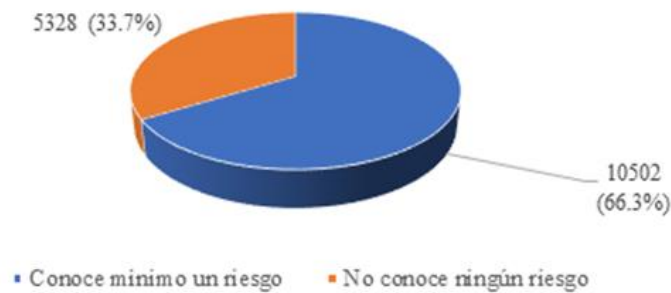
Fuente: Elaboración propia

Likewise, it should be mentioned that 2 out of 10 students do not personally know all their contacts added in their social network profiles, hence cybersecurity professionals recommend that parents know for emergencies the passwords of their children, although this does not happen in more than half of the cases.

On the other hand, 13.4% of the infants indicated that something negative had happened to them on sites such as YouTube, Facebook, Twitter, etc. In this regard, some of the affectations mentioned were seeing texts, images or videos for adults, cyberbullying and extortion. In future investigations, nevertheless, it would be necessary to specify if in fact something incorrect has not happened to them in said spaces or if, on the contrary, they do not know it or they perceive it as normal in those pages.

A key aspect for this research was the investigation into the knowledge of the participants about the risks that exist in social networks, as well as the preventive measures that should be taken if their integrity is affected. In this sense, 3 out of 10 children are not aware of the dangers in these platforms, which makes them potential victims (figure 4).

Figura 4. ¿Conoces al menos un riesgo en las redes sociales?



Fuente: Elaboración propia

Regarding the risks mentioned by the students, information theft, sexual abuse, extortion, cyberbullying and threats stand out, while regarding the preventive actions that minors must implement to avoid being victims of cybercrimes, it can be affirmed that 4 out of 10 children do not know what they must do to protect their integrity, which makes them more vulnerable (figure 5).

Figura 5. ¿Sabes al menos de una prevención al usar las redes sociales?



Fuente: Elaboración propia

The preventive aspects addressed by the students were not visiting adult sites, being supervised by an adult, not giving private information and not talking, adding in their profile or going out with strangers.

The majority of children and adolescents (77.4%) know how to act in a negative situation, which they link with what they should do if they suffer from any type of harm. Thus, children associate the way they should react if they are affected by what they have always been taught about emergencies: calling the police, talking with their parents, asking for help and reporting.

Results of the quasi-experiment

The treatment groups of the Eduardo A. Elizondo school, located in the municipality of General Escobedo, were 4 ° C, 5 ° A and 6 ° B. The control groups were 4 ° B, 5 ° B and 6. ° A. Three questions were evaluated before and after applying the techniques of popular education and media education in the quasi-experiment:

1. What bad things can happen to me on social networks? (Knowledge of risks).
2. What should I do to keep bad things from happening on social networks? (Knowledge of preventive measures)
3. If something bad happens to me or someone I know, what should I do? (Knowledge of reactive actions).

However, while in the three control groups (4th B, 5th B and 6 th A), the changes evidenced in the initial and final survey regarding the level of safety competencies were minimal, the treatment groups (4 ° C, 5 ° A and 6 ° B) progressed in number and diversity of responses thanks to media education. There were variations in student numbers due to attendance dynamics.

Group 4 ° C (treatment)

The number of students analyzed in this group had few modifications (table 3).

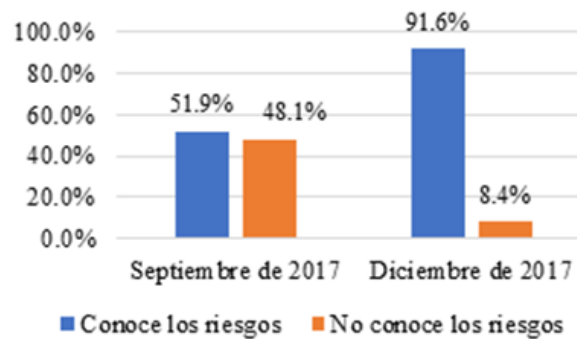
Tabla 3. Número de evaluados

Antes de la intervención (Septiembre de 2017)	27	15 hombres y 12 mujeres
Después de la intervención (Diciembre de 2017)	24	14 hombres y 10 mujeres

Fuente: Elaboración propia

The number of children and adolescents aware of the possible dangers that exist in social networks amounted to almost 40 percentage points (from 51.9% before applying popular education techniques to 91.6% after its implementation) (figure 6). In fact, by providing media education to children, the possible risks perceived in social networks were doubled in terms of kidnapping, cyberbullying, death, hacking, "raping and selling" and extortion.

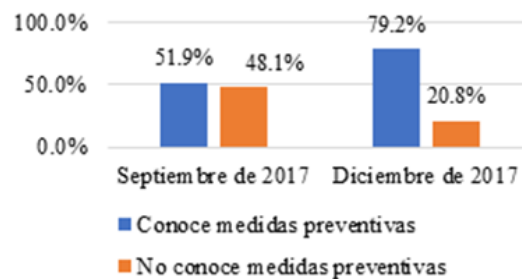
Figura 6. ¿Conoces al menos un riesgo por el uso de las redes sociales?



Fuente: Elaboración propia

Likewise, the percentage of infants who knew about preventive measures increased from 51.9% to 79.2% (Figure 7). Before the intervention they referred only to not offering their user names on the networks and not providing personal data. Afterwards, the students mentioned five other precautions they had to take: not overusing the networks, defending themselves, telling the parents, ignoring them and putting the profile private.

Figura 7. ¿Conoces al menos una medida preventiva que debes tomar al usar las redes sociales?



Fuente: Elaboración propia

The percentage of students who knew how to act if they suffered a negative situation in social networks amounted to 14.3 points, from 81.5% to 95.8%.

Group 5 ° A (treatment)

In this group, adjustments were also presented in the participants (table 4).

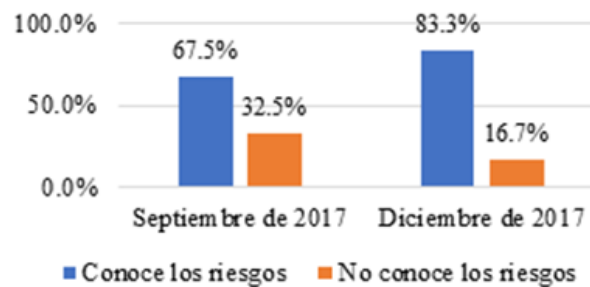
Tabla 4. Número de evaluados

Antes de la intervención (Septiembre de 2017)	40	19 hombres y 21 mujeres
Después de la intervención (Diciembre de 2017)	36	17 hombres y 19 mujeres

Fuente: Elaboración propia

The proportion of awareness of the risks in this group increased from 67.5% to 83.3% (Figure 8). As dangers they pointed out the following: they can steal from me, steal information, kidnap, abuse (sexual), write me "ugly" things and see wrong things. Cyberbullying and stalking were added at the end of the intervention (action to check the contents posted by another user on the internet).

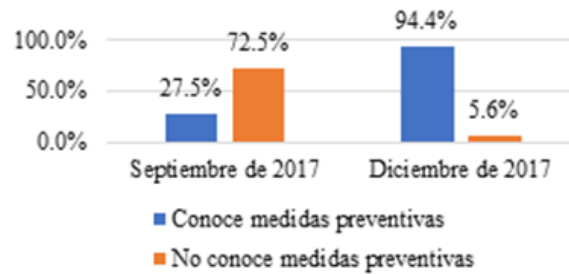
Figura 8. ¿Conoces al menos un riesgo en las redes sociales?



Fuente: Elaboración propia

The biggest change (of 66.9 percentage points) was in the knowledge of preventive measures, which reached 94.4% (figure 9). In this regard, the following comments stand out: not see undue things, not accept strangers, be alert and talk with family members. In the final evaluation they also answered the following: do not overuse the networks, do not talk to strangers and do not give personal information.

Figura 9. ¿Conoces al menos una medida preventiva que debas tomar al usar las redes sociales?



Fuente: Elaboración propia

In summary, it can be indicated that 80% and 94% of the respondents - before and after, respectively - mentioned that they knew how to act in the face of any eventuality.

Group 6 ° B (treatment)

Next, the number of students evaluated is presented (table 5).

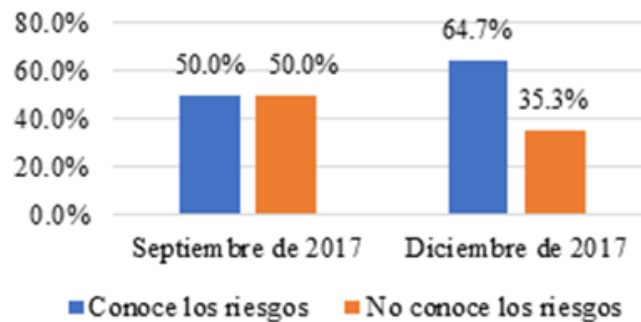
Tabla 5. Número de evaluados

Antes de la intervención (Septiembre de 2017)	36	18 hombres y 18 mujeres
Después de la intervención (Diciembre de 2017)	34	19 hombres y 15 mujeres

Fuente: Elaboración propia

Figure 10 shows that half of the respondents knew the dangers of the networks at the beginning of the quasi-experiment, a figure that increased to 64.7%.

Figura 10. ¿Conoces al menos un riesgo en las redes sociales?

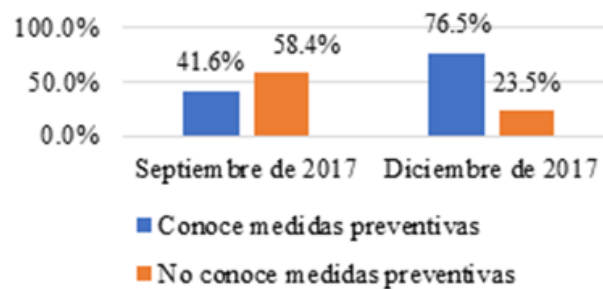


Fuente: Elaboración propia

About the possibilities of risk, the children and adolescents mentioned the following: kidnapping, talking with strangers, stealing data, that "they violate and sell me", that they prostitute me, see improper things. Then, the number of mentions grew, since cyberbullying was added.

Regarding the knowledge of preventive measures, the percentage rose from 41.6% to 76.5% (Figure 11). Before the intervention, the only precautions mentioned were not to add strangers and not to give personal data; However, after the intervention they reported other preventions, such as telling parents, not putting "bad things", not using the cell phone a lot, ignoring them, hiding passwords, not giving personal information and using networks with an adult. Finally, the knowledge of the reactive actions to undertake went from 69.5% to 76.5%.

Figura 11. ¿Conoces al menos una medida preventiva que debas tomar al usar las redes sociales?




Fuente: Elaboración propia

Results of the Media Project

In the Media Project courses, workshops and conferences were offered to teachers, parents and students from different schools. This drives three main proposals in Nuevo León (figure 12).

Figura 12. Planteamientos del Proyecto Media

<p>1.- Incorporar en los programas académicos del nivel básico contenidos de educación mediática, como ya ocurre en países nórdicos, Estados Unidos, Canadá, Australia y algunos de Europa. Incluir escuelas de padres sobre el tema y capacitación para maestros, desde el currículo en las Normales.</p>	 <p>2.- Fomentar campañas masivas de prevención en medios tradicionales y nuevos, tanto de las autoridades como de las mismas empresas involucradas, para que todos asuman su responsabilidad social. Integrar a expertos y organizaciones.</p>	<p>3.- Gestionar que los tres Poderes de Gobierno a nivel federal y estatal actualicen el marco jurídico y sus políticas públicas en materia de ciberdelitos cometidos en contra de menores, en el campo de la prevención, seguimiento y sanción.</p>
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Fuente: Elaboración propia

Table 6 records the progress made so far, among which we can mention the reform of article 22 of the Education Law of the State of Nuevo León (Congreso de Estado de Nuevo León, 2017), in which gave the attribution to the state educational authority, in coordination with the federal, to promote the responsible and safe use of information and communication technologies in the education system "to support student learning, expand their competencies for life and to favor their insertion in the knowledge society through the plans and programs of study".

Tabla 6. Informe de actividades del Proyecto Media

Fecha	Descripción
27 de abril de 2016	Presentación en el Congreso estatal de la propuesta elaborada en las aulas de la FCC.
25 de enero de 2017	Realización y participación en mesas de trabajo del Congreso estatal.
3 de febrero de 2017	Anuncio del Gobierno estatal de la incorporación de la educación mediática.
Agosto-diciembre de 2016	Investigación exploratoria y proyecto de intervención en escuela pública primaria de Apodaca, Nuevo León.
25 de abril de 2017	Presentación de la iniciativa de reforma a la Ley Estatal de Educación.
31 de mayo de 2017	Aprobación del Congreso del Estado de la iniciativa para que las autoridades fomenten el uso responsable de las tecnologías de la información y comunicación.
28 de junio de 2017	Publicación de la reforma en el Periódico Oficial del Estado y entrada en vigor.
12 de septiembre de 2017	Entrega en la Cámara de Diputados de la propuesta de reforma de la Ley General de Educación para que se incorpore la educación mediática en el sistema educativo.
Agosto-diciembre de 2017	Desarrollo del presente estudio.
2018	Seguimiento del proyecto con las nuevas autoridades de la Secretaría de Educación estatal y federal, Legislatura de Nuevo León y el Congreso de la Unión.

Fuente: Elaboración propia

In order for media education to be offered throughout the country, on September 12, 2017, petitions were delivered to the Chamber of Deputies, to which they are followed up (table 7).

Tabla 7. Puntos solicitados en la Cámara de Diputados en el Proyecto Media

<p>1. La presentación y aprobación de una iniciativa de reforma a la Ley General de Educación para incluir la educación mediática como obligación y su homologación con la Ley General de los Derechos de Niños, Niñas y Adolescentes de México, para fijar la responsabilidad de padres y tutores de educar a los menores en el conocimiento y uso responsable de las tecnologías de la información y comunicación, así como para precisar el papel de los maestros en este rubro.</p>	<p>2. La realización de mesas de trabajo con autoridades de los diferentes poderes, especialistas y organizaciones para analizar la posibilidad y las opciones de legislar en materia de delitos cibernéticos cometidos en contra de niños, adolescentes y jóvenes, así como el tema de la educación mediática como prevención.</p>	<p>3. El envío de un exhorto a la Secretaría de Educación Pública para que incorpore en sus modelos y programas académicos la educación mediática en el nivel de educación básica, empezando desde primaria y enfocada principalmente en las redes sociales. Para ello, se contempla la capacitación de maestros y padres de familia en este tema.</p>	<p>4. Envío de exhorto al Gobierno federal, Secretariado Ejecutivo del Sistema Nacional de Seguridad Pública, Policía Federal, Secretaría de Educación Pública y Procuraduría General de la República para que lleven a cabo campañas masivas de educación mediática a través de los medios de comunicación locales y nacionales dirigidas a menores de edad. Además de involucrar activamente en el tema a las empresas de medios de comunicación tradicionales y de las redes sociales en México y el mundo.</p>
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Fuente: Elaboración propia

Discussion

The results achieved allowed the design and implementation of a transversal strategy based on a diagnosis, which involves the three branches of government, the media (new and traditional) and civil society organizations. With this work, in fact, it was found feasible and feasible to incorporate media education into the academic programs of public basic education institutions in the metropolitan area of Monterrey, which can have a positive impact on students' media competences. on safety matter. For this, however, it is recommended to carry out a pilot plan with specialists for a year that does not leave out the training of teachers and parents and then expand its integration to all grades and campuses. In this sense, it can be affirmed that the initial hypothesis of this study was approved.

Likewise, the efficiency of putting into practice the teaching and learning of media education with the theoretical foundations of popular communication was demonstrated. In this

regard, it is worth noting that the intervention in the three groups of a public primary school lasted three months, so it should seek to develop this proposal throughout the school year.

On the other hand, it can be pointed out that the three questions posed initially were answered. Indeed, regarding the first question (what is the average level of media skills in the safe use of social networks of students in public elementary schools in the metropolitan area of Monterrey?), It was found that these skills are regular and insufficient, since the participants do not fully understand the risks that exist in these platforms, so that they can easily become victims and, consequently, affect their physical, mental and emotional health, as well as their family assets.

Regarding the second question (what are some of the factors that influence this level of media competences?), It was found that there is a lack of supervision and guidance from parents when minors use social networks. Likewise, the scarcity of educational content for the media was detected in the academic programs of the three grades studied, as well as the deficiencies in the updating of the legal framework and public policies on the subject.

Also, and in relation to the third question (what are the effects of implementing media education in the last three grades of basic academic education?), It was found that there was a significant increase in awareness, knowledge and actions of the infants before the risks that exist when navigating on social platforms, as well as the preventive measures they must take for a safe and informed use. These findings, in a general way, coincide with those reported in Mexico (Campos, 2011, León, Caudillo, Contreras and Moreno, 2014) and in countries such as Spain and Ecuador (Aguaded, Marín-Gutiérrez and Díaz-Pareja, 2015; Rivera and Celly, 2014).

On the other hand, and in relation to the main limitations, problems can be highlighted to obtain the permission of the authorities and the directors to access the schools, which made it necessary to look for other options for schools with availability. This caused the stratification and distribution by municipalities to be modified, although not significantly. In this area, it is worth mentioning that due to the human and material resources available, it was not possible to include the cities of Juarez and Salinas Victoria, which are officially part of the metropolitan area of Monterrey.

Also, the time available to evaluate the change produced with the interventions represented another difficulty, since the data collection, quantitative and qualitative, was done in almost three months. This caused that the dates and the schedules had to adapt to the requirements of the

educational institutions. Likewise, it is advised for future scientific efforts to deepen the role of teachers and parents, as well as in other modalities of schools and students with other sociodemographic characteristics.

Despite the foregoing, the strengths were multiplied both by the methodology used and by the size of the sample, which was representative of the conurbated area, so that the diagnosis has turned out to be unique in its type. Even the theoretical and practical contributions, as well as the results obtained have been very significant, since there are few experiences in media education in the country and in Latin America. In this sense, it can be said that the most important is in the actions undertaken to put this issue on the public agenda with the purpose of moving from the imaginary to the facts.

Conclusions

The current school model has been overtaken by the new paradigms of the interaction society, where social networks are preponderant, which represents a challenge both for the authorities responsible for public policies, legislators, institutions and organizations and for teachers, parents, researchers, specialists and the whole society.

Far from a prohibitive vision, media education should be a reality in the academic programs of Nuevo León and Mexico, with an emphasis on analysis, critical thinking, creativity, values and participation, since it is essential for the integral formation of students of primary, who ultimately are, more than a cliché, the future of the country.

In this effort, of course, it will not suffice if innovation is only integrated into the classrooms, since it is also imperative that it be linked to households, and that the media (new and traditional) assume their co-responsibility. In short, true communication is the transformer, so that it can be assured that "educating a child is not making him learn something he did not know, but making him someone who did not exist" (Ruskin, 1997).

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