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Flavio Marcio Wittlin

**Your Health in 3 Takes:**

Using 3 Photos Taken on a Smartphone as an Educommunication Support to Health Literacy

Rio de Janeiro

2023

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Research thesis presented to the Postgraduate Program in Public Health of the National School of Public Health Sérgio Arouca, at the Oswaldo Cruz Foundation, as a final requirement for obtaining the title of Master of Science in Public Health. Area of Concentration: Determination of Health-Disease Processes: Production/Labor, Territory and Human Rights.

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May this little thesis aid their cause, which is mine!

"Perhaps it is not in school but on our way to school that we learn lessons for life" (BÖLL, 1985, p.17)

## ABSTRACT

The purpose of this dissertation is to analyze and discuss Your Health in 3 Takes (YH3T), an authorial and potentially highly participatory educommunicative tool. YH3T utilizes three photos taken on a smartphone to create a photonovel about a specific generative topic, collectively agreed upon and dramatized. The photos should preferably be based on personal experiences of health, illness, care, healthcare, etc. that are remembered and coded as a photonovel. This collectively created and dramatized YH3T is then projected on one of the four walls instantaneously using a mini projector, helping to trigger conversation circles. These circles aim to decode the generative topic that inspired them. Thus, YH3T consists of sequential events: the selection of the generative theme, its dramatization by the participants, its capture in three photographic images, the projection of the created photonovel on the wall, and its decoding in a conversation circle. This sequence of events serves as an incremental educommunicative contribution to the conversation circles, with the objective of significantly enhancing health literacy. According to the author of the present thesis, this tool seems to generate high-intensity involvement of the participants. Finally, YH3T aims to support health mediators in their efforts to enhance intensive participatory educommunicative interactions. The aim is to promote the adoption, improvement, or change of health habits and preventive behaviors, to raise awareness of rights and responsibilities, and to distinguish between information and disinformation in health issues. This is in response to a long-standing call by WHO and various experts who believe that it is essential to involve large segments of the world's population in the development of strategic plans, actions, and decision-making processes for public health policies. The Covid-19 pandemic has brought to light the limitations of the exclusionary biomedical model and the anti-scientific denialism that has resulted from it. In fact, both are incapable of addressing the major challenges of public health around the world. Based on the author's own longitudinal empirical observations, YH3T has consistently provided abundant and engaging opportunities for high-intensity public participation, experienced in different territories of the states of São Paulo and Rio de Janeiro. Educommunication in the health sector faces significant challenges in terms of ensuring the availability, the sharing, the testing, and the validation of its tools, which can effectively involve the participants. YH3T aims to address these challenges with its simplicity, lightness, versatility, ease of instantaneous use and affordability.

Keywords: educommunication; smartphone; photograph; participation; health literacy.

## LIST OF ILLUSTRATIONS

Figure 1 -	Hypertension, is it enough to treat it?.....	13
Table 1 -	Comparison of tools used in Health Educommunication.....	14
Figure 2 -	Aids & IST. Banning discussions on sexuality does not cancel them.....	28
Figure 3 -	Measles: prevention at the right time.....	29
Figure 4 -	Instead of chloroquine, vaccines are the real medicine.....	30
Figure 5 -	Anxiety and depression: differences between both .....	31
Figure 6 -	Flu: to vaccinate or not to vaccinate?.....	42
Figure 7-	“They were hitting on me” .....	43
Figure 8 -	Educators in Dry Law Operation.....	44
Figure 9 -	Roundworms, go away! .....	45

## LIST OF ABBREVIATIONS AND ACRONYMS

ABPEducom	Brazilian Association of Professionals and Researchers in Educommunication
CHWs	Community Health Workers
COVID-19	Novel Coronavirus Infection or Disease
Ecosan	Ecological Sanitation
ENSP	National School of Public Health Sérgio Arouca
ESF	Family Health Strategy
Fecomércio-RJ	Trade Federation of the State of Rio de Janeiro
Fiocruz	Oswaldo Cruz Foundation
HEED	Health and Ecosan Education Course at PUC-Rio
HL	Health Literacy
MASP	Academic Master's Degree in Public Health
MoH	Ministry of Health
MSF	Médecins Sans Frontières
NGO	Non-Governmental Organization
PNEPS-SUS	National Policy for Popular Health Education in the context of the Unified Health System
PUC-Rio	Pontifical Catholic University of Rio de Janeiro
RJ	State of Rio de Janeiro
SARS-CoV-2	Novel coronavirus
SBC	Municipality of São Bernardo do Campo
SBPC	Brazilian Society for the Advancement of Science
Sesc RJ	Social Service of Commerce of the State of Rio de Janeiro
SESP	Public Health Services Foundation of the Ministry of Health
SP	State of São Paulo
STIs	Sexually Transmitted Infections
SUS	Unified Health System
UBS	Basic Health Unit
WHO	World Health Organization
YH3T	Your Health in 3 Takes

## SUMMARY

<b>1</b>	<b>INTRODUCTION</b> .....	11
<b>2</b>	<b>OBJECTIVES</b> .....	15
2.1	GENERAL OBJECTIVE .....	15
2.2	SECONDARY OBJECTIVES.....	15
2.3	JUSTIFICATIVE OF THE STUDY.....	15
<b>3</b>	<b>THEORETICAL FRAMEWORK</b> .....	17
3.1	HEALTH EDUCATION IN BRAZIL AND AROUND THE WORLD.....	18
3.2	HEALTH EDUCATION TOOLS.....	21
3.3	THEORETICAL PRINCIPLES UNDERLYING THE USE OF YH3T.....	22
3.4	PRAXICAL ROOTS OF YH3T .....	24
3.4.1	<b>YH3T's mode of operation</b> .....	27
3.5	LEGISLATION.....	31
<b>4</b>	<b>METHODOLOGICAL PATH</b> .....	33
4.1	METHODOLOGY.....	37
4.2	SEARCH STRATEGIES AND INFORMATION SOURCES.....	38
<b>5</b>	<b>OUTCOMES</b> .....	38
5.1	PIONEERING PHASE OF YH3T USE IN SBC (2016-18) .....	39
5.2	SUBSEQUENT PHASE OF YH3T USE AT SESC RJ (2018-21) .....	41
<b>6</b>	<b>DISCUSSION</b> .....	47
<b>7</b>	<b>CONCLUSION</b> .....	52
	<b>REFERENCES</b> .....	54
	<b>ANNEX A – LETTER FROM PROF DENISE L. SPITZER, UNIVERSITY OF ALBERTA, CANADA</b> .....	61

## PRESENTATION

My name is Flavio Marcio Wittlin. I am a medical doctor who graduated from the Faculty of Medicine of the Federal University of Rio de Janeiro (FM- UFRJ) in 1983. My first professional challenge was at the SESP Foundation of MoH (1986-89), where I worked as the head and general practitioner of its Health Center in Camocim, in the State of Ceará. There, I gained a degree of certainty: the impact of clinical activity on patients tends to be volatile if people do not acquire knowledge about the health-disease process, do not recognize their rights and duties, and do not develop intelligence to counter disinformation in the area of health. During that period, I went beyond the usual MoH campaigns, by exploring health education videos, radio shows (where I played as the character "Dr. Health") and conversation circles, for example, involving the CHWs, rounding up traditional midwives, mobilizing shopkeepers and the public to combat rat infestation in Camocim public market, etc. Later, I began to work again as a clinical doctor, collaborating with the creation of the first day hospital for AIDS patients in the city of São Paulo (1991-94). During my time there, I implemented new educommunicative interactions in health: articles in small neighborhood newspapers, collaborative videos, sketches, conversation circles with employees of large corporations as well as with sex workers in brothels, etc. Returning to the state of Rio de Janeiro in 1996, I continued in the hybrid mode of clinical practice and educommunicative health interventions in the *favelas* (slums) and peripheral communities, both inside and outside the walls of various spaces. Such was the case at the MSF Portus Project in the peripheral neighborhood Costa Barros, in the *favela* da Rocinha and at the Programa Médico de Família in the city of Niterói, in the Family Health Strategy (ESF) in the outskirts of the city of Nova Iguaçu. In 2011, I founded the Health and Ecosan Education Course (the HEED, multidisciplinary extension course) at PUC-Rio, with national and foreign professors and students with fieldwork to be done in the *favela* of Rocinha. In 2014-15, Sesc RJ, in partnership with PUC-Rio, invited me to run the HEED course for its regional team of health educators, who would be doing fieldwork in another huge *favela*, Complexo do Alemão. Next year, I would back to work as a medical doctor in SBC, in the state of São Paulo, where, amid an outbreak of arboviruses, I created an educommunicative tool, which I named Your Health in 3 Takes (YH3T), based on the creative use of 3 photos taken by smartphone in order to enhance conversation circles with more intense involvement of its participants. In 2018, I returned to the management function, this time as health manager at Sesc RJ. Here, I extensively expanded the use of YH3T in the territory, as will be seen throughout this thesis.

## 1 INTRODUCTION <sup>1</sup>

(Preliminary note: All translations of passages quoted from Portuguese are my own)

Educommunication, also known as *media education* or *media literacy*, is called “*educomunicação*” in the Brazilian Portuguese language, a term recognized by the Brazilian Academy of Letters (ABL). <sup>2</sup>

In the concept of the Brazilian Association of Researchers and Professionals in Educommunication (ABPEducom), published in 2021, it is understood as a guiding model for socio-educational-communicative practices. These practices are aimed at creating and reinforcing participatory processes in formal (school), non-formal (NGO-run) and informal environments (throughout the territory), ensuring shared management and use of communication resources, to facilitate the engagement of citizens.

Applied to health, Educommunication is a relatively new praxis, still at the preliminary exploratory research stage, especially regarding the challenge of making it highly participatory. It certainly has strong roots with the field of health promotion and disease prevention, enhancing it; at the same time, it has other potential uses. For example, it can act in the care, rehabilitation and health maintenance of individuals, families, and communities, as well as serve for the collective recognition of rights and duties and for the fight against disinformation about health issues.

The COVID-19 pandemic has reintroduced an old demand. It has put back on the agenda the relevance of health literacy (HL) among populations, as demanded by the World Health Organization (WHO). In other words, HL encompasses the acquisition of cognitive and social skills for understanding information aimed at: (i) promoting health, preventing diseases, and adopting, improving, or changing health habits; (ii) recognizing the rights and duties of users of health systems or services; and (iii) countering disinformation in the area of public health.

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<sup>1</sup> This study shows a circularity in its presentation of the ideas and concepts. As if they were ‘mantras’ to be fixed in the minds of the readers. This writing may have been influenced by various texts written by Paulo Freire. After reading a set of works of this thought-provoking author, this master's student assumes, in a truly humble way, that he was inspired by Freire's art of writing and rewriting, using leitmotifs to make the writing flow.

<sup>2</sup> The ABL recognizes 'Educomunicação' as a new word in the Portuguese language in Brazil, as can be seen in <https://www.academia.org.br/nossa-lingua/nova-palavra/educomunicacao>



People may have access to health facilities, doctors, dentists, nurses, psychologists, and physiotherapists, as well as tests, medicines, etc. However, such access in itself does not create cognitive and social empowerment in their life. In other words, this accessibility does not make health systems users acquire, improve, or change habits, whether in terms of health promotion, disease prevention or healthcare. Certainly, this accessibility does not make individuals actively aware of their rights and responsibilities and does not empower them to confront health disinformation.

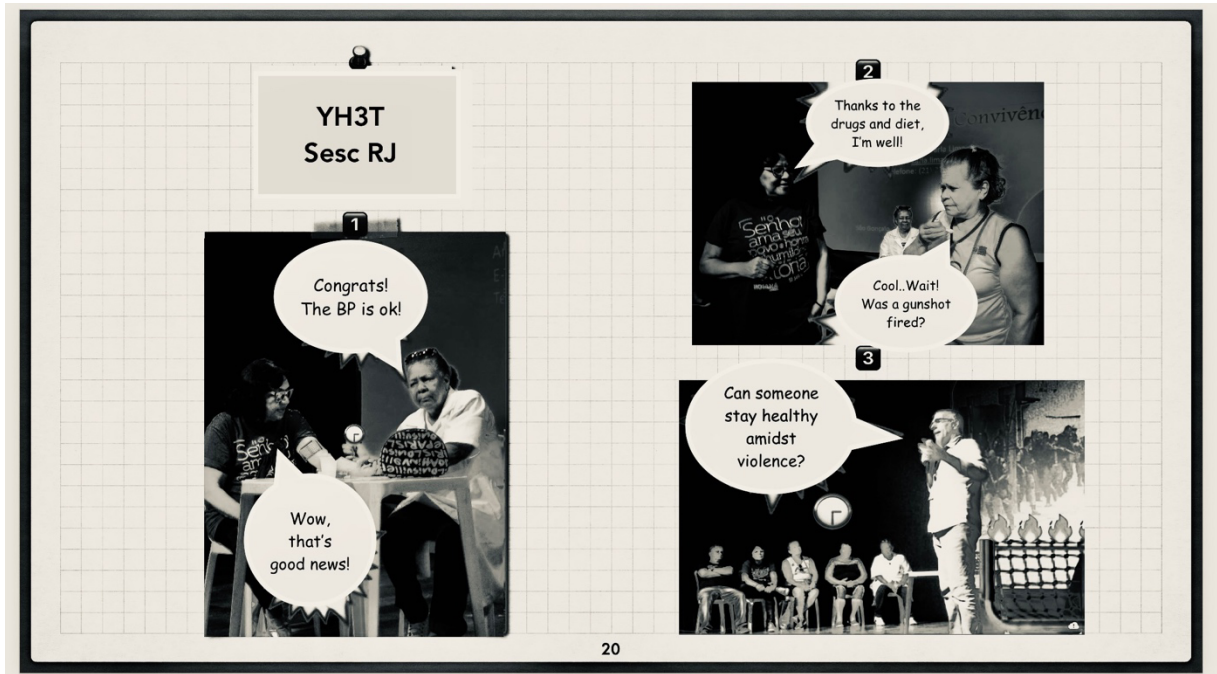
This thesis refers to the supposedly innovative use of photos created on a smartphone, applied here as an educommunicative tool called "Your Health in 3 Takes or YH3T " (WITTLIN et al, 2018). This is not an app, but rather a simple, trivial use of a smartphone camera to produce 3 photos covering a given generative theme (FREIRE, 1968) in the area of health, and their immediate display on any of 4 walls using a low-cost projector. In this way, YH3T is an educommunicative technology that promises to inspire and enrich conversation circles. This practice intends to be inspired by Freirean principles.

The conversation circles promoted by YH3T thus take as their starting point: (i) a generative theme involving experiences or problem situations in the area of health, which is agreed with all participants; (ii) its codification converted into an instant photonovel, dramatized, clicked and displayed by them, in real time, with only 3 photos, in which they see themselves reflected on stage, according to the interactive theater founded by Boal (1997); and, (iii) a mediation facilitated by health professionals, as recommended by Valla (1996), who help the participants to script the story inspired by the generative health theme chosen collectively for the photonovel. The next and final stage (decoding phase) consists of engaging everyone in the debate about the content created by the photonovel.

With the YH3T, conversation circles can bring together from half a dozen to over a hundred people. Through the power of collective creation and instantaneous projection of the 3 photos, the participants tell a story with a beginning (photo 1), middle (photo 2) and end (photo 3), covering a health theme or problem situation, which has been agreed between them and the mediators. Using this educommunicative tool, the participants encourage and engage themselves in conversations with high-intensity participatory involvement, which is recognized as a circle made up of 'educators-learners', such as defined by Freire (1985). Its mode of operation offers greater support to the educommunicative effort aimed at an interactive and critical HL. And, in this way, it provides greater power to tackle diseases and illnesses or health problems in general.

Before going any further, here there is a first illustrative example (Figure 1) of how the tool is used:

Figure 1 - Hypertension, is it enough to treat it?



Source: (proprietary, 2018).

**Context:** **Social Work with the Elderly (TCI)**, a health education activity regularly conducted by Sesc São Gonçalo, RJ. The photonovel, along with its corresponding skit, engaged 122 participants who performed it, inspired by the generative theme: **Hypertension, is it enough to treat it?** **Script:** # Photo 1: "Mrs. Maria" is being examined for high blood pressure. # Photo 2 shows her joy of successful HTN control being interrupted by a violent altercation between police and drug pushers near the clinic # Photo 3: A participant takes a photo of "Dr. Health" (a character) who asks the audience a question: "Can someone stay healthy amid violence?". **Outcome:** the entire audience at the Sesc actively participated, enabling the approach of HTN from a biopsychosocial perspective. (This approach was successfully replicated in 2019 at an event organized by the Movimento Longevidade Brasil. The event drew 128 elderly people in the Fecomércio-RJ auditorium). **Note:** No words or emoticons were presented during the live projection of the three photographs that comprise YH3T. The photonovel was the result of the performance of the participants in the YH3T dynamic. It was presented in silence, without a 'voice' (mandatory in the case of photovoice), since the entire audience had already defined the story that would be discussed. It is worth mentioning that every photonovel is always stylized and pseudonymized.

### Guiding questions

- What potential does the YH3T have to provide high-intensity participation at the front line of the health care systems and in the territory, thus contributing to advancing people's health literacy?

- What tools are most used in Health Educommunication?
- Which of these educommunicative tools provide processes capable of creating greater engagement of participants?

To anticipate a partial answer to these last two guiding questions, it is timely to share a generic presentation of the tools most frequently used by Educommunication in the area of health (Table 1). This is only an empirical authorial illustration that still lacks quantitative research. It is based solely on the perspective of this master's degree student who has worked in the territory for a long time; that is, it is not a description of the state of the art in terms of the real effectiveness of the tools mentioned below.

Table 1 – Comparison of Tools for Health Educommunication

<b>Communication formats</b>	<b>What are they?</b>	<b>Potential impacts on people's health habits</b>
For reading: pamphlets, posters, banners, etc.	Printed messages with educational information about general health and/or ecosan issues, with simple and concise wording, with or without images	Such printed formats seem to have low or no direct impact. Its functionality is in serving as a bait to a broader health educational interaction
Dialogic communication: debates, video debates, rounds of conversion, skits, dramatizations, theater, etc.	Health educational messages that tend to be a joint creation by Health Educators and the audiences, exploring the technical know-how of the former and the health- sickness-recovery experiences of the latter	Here the impact is or seems to be moderate, since through these formats, the (re)construction of health knowledge still tends to be strongly biased by the Health Educator
Inclusive dialogic communication: participative skits, photovoice, participative videos, Your Health in 3 Takes (YH3T), etc.	Messages with knowledge (re)constructed in a combined and inclusive manner between the Health Educator and the participating audiences, who share the spotlight through the whole production process of this knowledge	The potential impact on people's health habits is maximized and tends to be high, since it focuses on people's experience as a starting point of knowledge transmission. Educators and Participants teach and learn from each other. Health education tips are no longer a "comet flying by" and tend to convert into a habit acquired, improved or modified by people

Source (modified): Book published by the 2nd World Congress on Childhood and Adolescence (2019)

This framework embodies the search for more active educommunicative methodologies, as a preferential support point for providing greater dialogicity between educators-learners and learners-educators.

## **2 OBJECTIVES**

### **2.1 MAIN OBJECTIVE**

Analyze the participatory potential of YH3T, with its use of 3 smartphone photos, as an educative contribution to health literacy

### **2.2 SECONDARY OBJECTIVES**

- Discuss the potential of YH3T to influence the adoption, improvement or change of health-related habits
- Debate its usefulness in facilitating social recognition and mobilization for rights and duties and combating disinformation in the area of health
- Discuss the state of the art regarding the effectiveness of the tools available for educative interactions in this area

### **2.3 JUSTIFICATION FOR THE STUDY**

In the wake of the global spread of COVID-19, the Independent Panel for Pandemic Preparedness and Response (WHO, 2021) encourages interactions "with marginalized communities, including those who are digitally excluded, in the co-creation of plans that promote health and wellbeing at all times, and build enduring trust (p. 59)."

The current thesis has its purpose due to the appeal of this Panel and similar ones for other diseases and illnesses, supported by the WHO manual (1988) and various experts. They recognize that the lack of HL is a significant risk factor for the global burden of disease.

Regarding the pandemic, there are many reasons that justify the need for educative interactions in the territory and at the forefront of health systems. These include: (i) relentless attempt to downplay the magnitude and seriousness of the COVID-19 pandemic, which was the hallmark of the previous Brazil's government; (ii) the attitude of some national governments calling for general rejection of non-pharmacological prophylactic measures and vaccination; (iii) in some countries, including Brazil, anti-scientific and unethical prescriptions, uncritical acceptance or self-medication by many lay people of unproven treatments for COVID-19; (iv) the persistent dissemination of false information

about the pandemic and its management;<sup>3</sup> and (v) disempowerment of popular engagement in the most sensitive public health issues.

During the pandemic, which exacerbated many other health problems, the Brazilian government, which ended its term on December 31, 2002, neglected its public health responsibilities and avoided encouraging the active and conscious participation of civil society. The socially excluded sectors of population, which have been historically subjected to racialization and discrimination of all kinds, were the most affected by the state's neglect and misconduct once again.

Given the above, it is becoming increasingly important to use educommunicative technologies in the health sector which can help promote genuine civil society participation. These technologies should be universal, easy to use, versatile, affordable, creative and stimulating. They should be inclusive and capable of overcoming barriers such as age, culture, language, class, literacy, and schooling. They should ensure active participation from all people.

Large corporations often prioritize profits over public health, following a "business as usual" approach. This can result in citizens being excluded from important debates and problem-solving efforts. The state apparatus and public services may also promote messages that reinforce the capitalist system. Social alienation is intensified by superstructural apparatuses like schools, commercial media, and the web.

At present, this social alienation as an end in itself is being fiercely contested by two factions. One is represented by the neoliberal corporate media, the other by the ultra-liberal extremist social networks that have been proliferating on the Internet. Both factions are competing for the direction of the capitalist state. In the context of COVID-19, for example, the latter has been guided by pseudoscience, anti-science, denialism, and precarious health services. The former, on the other hand, is guided by some degree of public health assistance, but with no incorporation of the component of the civil epidemiologic surveillance, a concept advocated by Sevalho (2016).

In common, for both the corporate media and the extremist internet networks, overall rights and duties in public health should remain invisible, while the relevance of HL must be erased.

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<sup>3</sup> All this has been carried out by denialist organizations, professionals, politicians, and certain extremist media outlets and networks on the web, often with the intention of concealing the truth, spreading hoaxes and prevaricating.

This study aligns with the recommendations of professionals who aim to amplify citizens' voices and advocate for their social and health rights and responsibilities. It shares cognitive resources to combat disinformation and promote the adoption, improvement, or alteration of individual and collective health behaviors.

Educommunication is still on the way to integrate its concepts, processes, and technologies into public health. Here, the aim is to provide innovative educommunicative contributions to expand HL within local communities around the world.

YH3T is a simple, versatile, and potentially reproducible tool for sharing knowledge on non-communicable and communicable chronic diseases, including COVID-19. As a conceptual and practical construct, it can be employed globally, as recommended below.

### **3 THEORETICAL FRAMEWORK**

Educommunication is defined as a field of specific practices at the communication/education interface. Understood as a primarily social intervention, this concept serves as a mobilizer of actions with educational goals which are implemented through dialogical communicative processes. The main aim is to enhance the communicative abilities of individuals and social groups, leading to the consolidation of programs aimed at promoting full citizenship across various human domains (translation mine) (SOARES et al., 2019, p.14).

[...] the educator's task is not that of an individual who simply stands as a knowing subject in front of a learnable object, and then proceeds to speak discursively to their students.

Rather, education is a form of communication which centers on dialogue and the gathering of peers who seek to ascertain the meaning of meanings. The students themselves ought not to act as mere archivists of the educator's words (translation mine) (FREIRE, 1983, p x).

This study analyzes the fundamental principles, processes, technologies, models, and legislation that shape and regulate health education practices in Brazil in an objective manner. Additionally, it provides a critical analysis of previous YH3T implementation in various locations from an *ex post facto* perspective (read about methodological procedures below) while maintaining a clear and logical flow of information.

Generally, the focus is on the hypothetical potential of Educommunication to promote high-intense engagement in health education interactions. More specifically, the thesis focuses on YH3T's power to encourage a high degree of involvement of its users. Its presumed ability to collaborate in the acquisition, improvement or change of health habits as well as in the recognition/mobilization for their rights and duties in public health is explored. Moreover, it examines YH3T's tool capacity to counter disinformation in the health field.

Suggesting accurate guidelines in a top-down manner, that downplays the living conditions, experiences, and self-determination of local communities, is pointless (FREIRE;

GUIMARÃES, 2015). For example, acceptable and sensible measures include washing hands regularly with soap and water or alcohol-based sanitizer, maintaining social distancing, wearing face masks, and ensuring vaccination coverage for all age groups. Although technically relevant, the impact of these recommendations remains limited unless they are coordinated with grassroots groups that assess their feasibility and relevance (CORBUN et al., 2020). Educommunicative tools, particularly those utilizing more active methodologies, ought to stimulate the necessary dialogue between technical knowledge and social reality.

### 3.1 HEALTH EDUCATION IN BRAZIL AND AROUND THE WORLD

Educommunication is an emerging practice in the health field. This year, Professor Ismar de Oliveira Soares, President of the Brazilian Association of Researchers and Professionals in Educommunication (ABPEducom), expressed his optimism regarding this matter in a personal email sent to me: "It is not impossible that a union of efforts will enable Educommunication to reach the area of the Ministry of Health that defines educational and communication actions" (translation mine).

Facilitators, motivated by the methodological proposal "Open innovation in health" (Gabriel, Stanley, & Saunders, 2017), have accepted the new praxical challenge. This methodology is based on a guide that set government agencies from the United Kingdom and the government of the state of São Paulo in a cooperative effort. The goal is to enhance processes of innovation capable of providing preventive and health promotion services by the adoption of new products and services.

Open health innovation arises from the realization that valuable ideas can stem from the ordinary world, that is, from regular people in communities and workplaces, and can have greater plausibility and quality than those from the academic and corporate domains.

From the Global South to the Global North, there is a widespread need for HL encompassing basic, interactive, and critical dimensions (NUTBEAM, 2017).

The interactive aspect involves the capability of individuals to extract information from various forms of communication and apply it to modify their circumstances (PAVÃO; WERNECK, 2020, p. 4105). In their critical analysis, the cited authors assert that HL encompasses an individual's capacity to "analyze information and apply it towards influencing various life events and situations" (translation mine). Despite the significant relevance of this aspect, instructional approaches that foster HL are yet to be properly incorporated into public

health policies worldwide. Muscat et al. (2022) have discovered compelling evidence which clearly shows a strong correlation between low HL and poor decision-making concerning healthcare. Improving HL is an international priority, according to these researchers, who urge health systems to focus on achieving this goal. This entails implementing evidence-based practice and research, which must be supported by academic centers and health system or services users.

Educommunication, as a social technology, can facilitate HL by aiding individuals and collectivities in (i) acquiring, improving, or altering health habits, (ii) recognizing rights and responsibilities, and (iii) developing critical skills for combating health disinformation (FREIRE NP et al., 2021). Counting on the expert support, health-promoting media literacy education for promoting health have shown promise in various countries. However, coherence, scale, and evidence supporting their effectiveness are so far lacking.

In Brazil, a relevant project is being developed at the service of the São Paulo state Health Department, with CHWs from 300 municipalities, working on Educommunication/Health relationship in the fight against arboviruses.<sup>4</sup>

In this methodological proposal, Valla (1996) and other colleagues had identified two critical components for educommunicative interactions in health: (i) the historical consolidation of popular knowledge anchored in the territory, and (ii) the admission that any attempt to promote health improvement must interact dialogically with this knowledge.

I am discussing the mindset of health professionals and researchers who struggle to acknowledge that individuals who are "humble, poor and live on the outskirts" can generate and organize knowledge. This capability enables them to interpret society, which can contribute to our assessment of it (translation mine) (Valla, 1996, p. 178).

As a social technology for health promotion, Educommunication faces the challenge of restoring a connection between two spheres: the health of the individual and the health of the community. The aim of educommunicative efforts in healthcare goes beyond merely informing individuals about what is and isn't good for their health. The goal is the adoption, improvement, or alteration of preventative and healthcare behaviors. Moreover, the educommunicative initiative involves the acknowledgment of their rights and duties in the realm of public health. And finally, it aims to combat disinformation, which has been intertwined with the ethical implications of diseases. "Countless examples of scientific disinformation can be found throughout the 20th century; however, it is the current pandemic

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<sup>4</sup> This project follows the principles of the 'Open Innovation in Health' methodology, as reported by Gabriel, Stanley, and Saunders in 2017.



moment that has boosted the production of pseudoscience.” (RÊGO, 2022, vol. 12, p. 60748).

In other words, Educommunication can be considered as a social technology that is able to engage with health-related issues. It has the potential to facilitate a two-way exchange of technical information and experiential knowledge, which can lead to the acquisition, enhancement, or transformation of habits. It is an opportunity for individuals to exercise their rights (acquired or yet to be obtained) and fulfill obligations (of their own or mandated by the state) during the COVID-19 pandemic and other syndemics (SINGER et al, 2017).<sup>5</sup>

Additionally, through educommunicative attempts people may implement superstructural interventions to combat disinformation that spread rumors and fake news regarding the scale, vaccination, and treatments of COVID-19 (Couto, Barbieri, & Matos, 2021); and misled regarding the unequal socio-spatial distribution of the disease in the country (Albuquerque & Ribeiro, 2020). The Brazilian state hid its negligence, malpractice, and disregard for scientific evidence during the pandemic from 2020 to 2022 (BOLZAN, 2022), leading to the current consequences, including the fatal harm to the health of the population, particularly of the most vulnerable segments (HALLAL, 2021; MONTEL, 2021; XAVIER et al, 2022).

Here and around the world, Educommunication in the health field has a challenging mission ahead. Based on the frontline of health systems and in the territory, it can and must be able to help promote health, tackling communicable and chronic diseases, as well as various health problem situations. Among others, the case of the COVID-19 pandemic is illustrative. Educommunication must be ready to respond to the call of the WHO Independent Panel (SIERLEAF; CLARK, 2021), which calls for initiatives aimed to empower communities, making them capable of "identifying, understanding, analyzing, interpreting and communicating about the pandemic" (WHO, 2021). This call helps build the civil society component of health surveillance:

Civil [society] health surveillance was outlined by the educator Victor Vincent Valla in the mid-1990s and, as experience grew, it facilitated processes such as shared knowledge construction and collective ombudsmanship. Carried out with the population, based on local culture and Paulo Freire's popular education, civil surveillance can represent the aspect of health surveillance that embodies popular participation and contributes to social transformation, complementing traditional epidemiological surveillance (translation mine) (SEVALHO, 2016, p.612).

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<sup>5</sup> ‘Syndemics’ is the most appropriate term to characterize pandemics throughout history in societies marked by class division and its health and social inequalities.

Regarding the disease associated with SARS-CoV-2, Richard Horton, editor of The Lancet, stated that 'COVID-19 is not a pandemic, but a syndemic.'

The HL sought by Educommunication must also aim to empower communities to recognize their health rights and responsibilities, so that they can mobilize to uphold them. And, no less importantly, to empower them to counter disinformation, hoaxes, and fake news, which converge to undermine the health of people and communities in harmful and often fatal ways.

### 3.2 HEALTH EDUCOMMUNICATION TOOLS

In the field of health education, there are classically different tools (Table 1), some following more active methodologies (dialogic lectures, video debates, photovoice and participatory videos, conversation circles, etc.), others less active (leaflets, posters, conventional lectures, etc.). Whatever they are, it has been empirically observed that these educommunicative tools do not, by themselves, work like magic wands that can lead automatically to people's participatory involvement. Moreover, they do not, by themselves, give rise to an intense audience participation to the point of generating the necessary critical insights into the inequalities, inequities, and violations of health rights (WERNECK, 2022) that characterize most countries on the planet, something that is very poignant in the current COVID-19 syndemic (BARBOSA, 2022). Regarding what we now call educommunicative tools, Paulo Freire, the patron of education in Brazil underlined:

The object that represents the codification - photo, drawing or poster - only serves [...] as a support point. **A visual support point is a visual support point, and nothing more** (emphasis added). It can either be used as an effective resource to "domesticate", or it can serve liberating purposes. In this way, the important thing is whatever the points of support are [...], they are aids that can only be justified if they are used in a liberating way (translation mine) (FREIRE, 1983, p x).

The object that represents the codification - photo, drawing, or poster - serves only [...] as a support point. **A visual landmark is a visual landmark and nothing more** (emphasis added). It can either be used as an effective resource to "domesticate" or it can serve liberating purposes. In this way, the important thing is that whatever the support points are [...] they are tools that can only be justified if they are used in a liberating way (translation mine) (FREIRE, 1983, p. x).

Therefore, from a liberating perspective, to present the state of the art on the real effectiveness of educommunicative tools applied in the health field, part of this study takes a preliminary comparative look at this effectiveness. Which ones are associated with a greater or lesser degree of participatory involvement of the audience? This is something that already had worried Freire, for whom lectures were "less and less indicated as an efficient method"

(translation mine), and “problem-solving dialogue” (translation mine) was the right way to overcome ‘domesticating education’. And perhaps, who knows, our study can re-signify that the “visual support point” (today we would say a visual educommunicative tool) highlighted by Freire is something other than “nothing more”.

### 3.3 THEORETICAL PRINCIPLES UNDERLYING THE USE OF YH3T

Some details based on these principles were anticipated in previous lines.

Professionals and mediators committed to transforming unfair socio-medical circumstances play a key role in this transformation. Nevertheless, even with scientific methods, they can't overcome the ideological dimension that affects their social interactions (DESLANDES, 1993).

The Brazilian education patron stated that “ideology has an indisputable power of persuasion. Ideological discourse can numb the mind, inhibit curiosity, and distort the perception of facts, things, and events” (translation mine) (FREIRE, 2014, p.129).

Mediators may encourage or disregard the development of critical insights in oppressed individuals depending on their personal worldview. If the goal is to encourage the dominated classes, mere intellectual, academic, or technical knowledge possessed by the mediating personnel cannot overcome the historical disempowerment of the majority, who have become accustomed to inaction and never being heard (VASCONCELOS, 2008).

In the fieldwork, good facilitators can and should place the experiences of their audiences at the center of the conversation circle, for example, sharing the experiences of prevention, care, recovery, and even the fatal outcome that the COVID-19 pandemic has brought, if not to themselves, on those close to them. Because objective knowledge can be produced through the exchange of technical-scientific information and popular wisdom tempered by experiences, leading in a dialectical way towards the synthesis of superior quality. This results in the emergence of new, transformative knowledge (BRANDÃO; ASSUMPCÃO, 2009), with the potential to advance HL among the populace. Here, health literacy can be embraced in its basic, interactive, and critical dimensions.

By recalling experiences of health/illness/treatment/recovery/healthcare quality etc, reminiscing about them in a dramatized way and creating a story codified into 3 snapshots – as required in Your Health in 3 Takes – the participants enter the realm of the ludic dimension. In other words, enter the sphere of playfulness, which involves taking a distance

from the objective facts (BOAL, 1991) to gain a deeper reflection on them. The playful approach produces the coding of the YH3T photonovel, which will be collectively decoded in the conversation circles that follow.

Without collaboration between the scientific and popular communities, disinformation prevails, including the cover-up of the social determinants of health (BUSS & PELEGRINI FILHO, 2007; RIGAUD, VERTHEIN & AMPARO-SANTOS, 2021). In other words, the result is the disengagement of the population, as previously mentioned. Here, the imagery of the general people has been contested by two dominant players, varying the degrees of dispute. Nonetheless, their objective is tacitly the same and aim to maintain the populace's alienation from the social determinants of health.

The coverage of the COVID-19 pandemic in both cyberspace and mainstream media networks provides an illustration of this phenomenon.

On the one hand, there are information bubbles that coalesce to propagate anti-scientific views. Networks amplified by the Internet (THE LANCET COMMISSIONERS, 2022) spread disinformation, prejudices, and hoaxes, leaving the population perpetually illiterate about health issues. Most medical institutions, which are supposed to ensure the ethical conduct of professionals, have also been contaminated by denialism and/or pseudoscience, leading to further entrenching these frauds (BRITO, 2023).

On the other hand, disinformation is also spread through the electromagnetic spectrum, ie, through the mainstream commercial media. In much of the media, the explanation of the COVID-19 phenomenon, for instance, relies on the reductionist and repetitive 'germ theory' (SCHULTZ, 2008), which attributes the spread of SARS-CoV-2 to individual "carelessness" or "bad luck". In the 19th century, Engels and Virchow had alluded to the "material conditions of people's daily lives" and the "multifactorial origin of disease," but for ideological and commercial reasons, the obsolete "one-factor model of disease" of Pasteur, Koch, and others (WAITZKIN, 1980, p.2) has eclipsed the model of social determinants of health.

It is in this context of ubiquitous disinformation, transmitted via both cyberspace and the electromagnetic spectrum, that the need for Educommunication in health becomes even more apparent, yet still needed to gain greater scale. It enters the scene with a set of socially inclusive concepts and tools, which seek to help disempowered populations to counteract disinformation. In addition, Educommunication has the potential to impact habits and stimulate awareness and mobilization for health-related rights and duties. These effects are

much more probable when conducted in a high-level participatory way, with the active involvement of the public in the territory.

### 3.4 PRAXICAL ROOTS OF YH3T

YH3T draws inspiration from this master's student's long-standing involvement with Educommunication. This journey began in the analog era, when VHS videos were used at the SESP in Camocim, Ceará, from 1986 to 1989, and then continued at the Municipal Health Departments of São Bernardo do Campo, Santo André and São Paulo, from 1989 to 1994.

The shift to the digital age commenced in the 2000s, greatly enabling and broadening the accessibility of its associated audiovisual resources to the public.<sup>6</sup>

Following this statement, this master's student transcribes below selected excerpts from his 2011 conversation with Margaret Ledwith, now an emeritus professor at the Institute of Health at the University of Cumbria, UK. These selections were published in the second edition of her book, "Community development: A critical approach".

"Since 2003, we have been working with the community of Favela da Rocinha, the largest favela in Rio de Janeiro, where more than 100,000 people live in extreme poverty: low waste disposal, health problems, poor access to health and sanitation services and extreme violence exerted by drug gangs and truculent and/or corrupt police officers."

"On the other hand, close to this favela, São Conrado, with around 15,000 residents, exhibits all the signs of wealth, with unlimited access to food, regular garbage collection, access to high-tech health services, as well as the [suspiciously] hedonistic consumption of drugs by some of its residents."

"[...] Rocinha and São Conrado are like a mirror of the social apartheid that has characterized the inequalities of Brazilian society for five centuries."

[...]

"In 2006, we founded the NGO Viramundo, bringing together social activists from Rocinha and urban middle-class neighborhoods. A year later, we started a partnership with Vincent O'Brien, a sociologist from the University of Cumbria, UK, and creator of the international social network Visible Voices, exploring digital media (photos and videos) with a focus on health and everyday life issues identified by young people (15-19 years old) who live in Rocinha and have been certified as Visual Agents for Health Education. [...]"

"The films and their respective photos were shown not only throughout the Rocinha community, but also in other related areas and at different universities around the world [...]"

"Next year, with the support of Viramundo, we're going to hold the Health Education Course at the Pontifical Catholic University of Rio de Janeiro [...]. A fundamental orientation of the course will be that participants will take part in community workshops [...]. *Our aim is to leave the technical mastery of the microscope that reveals the world of germs to the scientist and entrust the management of the photographic and video cameras to the residents of the*

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<sup>6</sup> According to Vincent O'Brien, a former professor at the University of Cumbria in the United Kingdom, taking a digital photograph has become a pastime for children.

*communities, who are better able to reveal the vulnerability of their historical living conditions.* (LEDWITH, 2011. pp. 128-130).

Five years later, YH3T would be created as an authorial tool based on previous educommunicative processes. It derives from the concept of *visible voice* (O'BRIEN, 2007) and the pedagogical project that sparked the Health and Ecosan Education Course (HEED) at PUC-Rio. This project would be later extended to Sesc RJ,<sup>7</sup> between 2011 and 2016, with fieldwork in the *favelas* (slums) of Rocinha and Complexo do Alemão.

Designed for national and international educators and students, this multidisciplinary extent course provided educommunicative interactions with people in communities, schools, and workplaces. HEED stimulated the use of participatory audiovisual media to support real-life initiatives to promote health through high-intensity engagement from a Freirian perspective.

In other words, the HEED was initially based on educommunicative technologies that aimed to facilitate the creation of participatory videos that were both creative and labor-intensive. Vincent O'Brien, an Irish ex-researcher at University of Cumbria, implemented this technology, which was shared with refugees, migrants, and socially excluded populations in different regions of Asia, Western and Eastern Europe, and North and South America during the first decade of the XXI century (O'BRIEN; DJUSUPOV; WITTLIN, 2007). "Visible Voices" would also incorporate the participatory Educommunication tool called photovoice (WANG; BURRIS, 1997). Photovoice is composed of a series of photographs taken by participants in a workshop, focused on a generating topic such as health, disease, treatment, care, rehabilitation, disability, health promotion, and more. The tool allows the photos to have a 'voice'. with titles and captions chosen by the creators. Typically, participatory video and photovoice are visual media created by workshop participants and presented to a wider audience after they have been produced, often over a period of days, weeks, or even months.

YH3T extends the reach of 'Visible Voices' by offering impressive responsiveness and wider use of this educommunicative tool by the public. Using just three (3) photos taken with a smartphone, participants can tell a story about any health-related issue.<sup>8</sup> The resulting photonovel is then projected using mini projectors, sparking conversations about health

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<sup>7</sup> This course was developed in partnership between PUC-Rio and Sesc RJ. For more information, please visit the PORTAL PUC-RIO DIGITAL: Pontifícia Universidade Católica do Rio de Janeiro. Educação em saúde vira tônico social December 16, 2014 [cited Jan. 20, 2022]. Available from: <http://puc-riodigital.com.puc-rio.br/cgi/cgilua.exe/sys/start.htm?infoid=25548&sid=13#.YnLDnvPMic8>

<sup>8</sup> Afterwards, images of people in YH3T are always stylized and nuanced, and their names pseudonymized, to protect their rights.

among up to one hundred participants. This step involves a high level of interaction and encourages discussion to explore people's personal experiences and knowledge, such as those with COVID-19. They then focus on what they're doing or not doing (1) to promote the adoption, improvement or modification of preventive or healthcare habits; (2) to accomplish the recognition of their rights and duties to diseases prevention, mitigation, or assistance from the state; and (3) to counter disinformation, rumors and fake news about the current pandemic and other diseases. Using low-cost, preferentially self-charging mini projectors that don't require a connection to the power grid or the Internet, this instant photonovel is displayed in real time on any of the four walls in the world. It facilitates the exchange of knowledge and technical understanding related to these experiences and promotes high engagement of people.

YH3T is a technique for animating and improving conversation circles that problematize a given health issue or situation in a given territory.

According to Freire, generative word constructs a meaningful universe, a **generative theme** (my emphasis). And words are gathered from both formal and informal conversations, which requires a specific skill from researchers and educators *who know that they do not know*, and therefore listen and cultivate an epistemological curiosity, as opposed to the anti-dialogical bank-clerk educator who is submerged in their own ideas and opinions. Listening is a learning process involving a political decision to be receptive to life and human encounters, especially those contemplating painful sufferings surfaced in verbal exchanges and reproduced in speeches" (translation mine) (PASSOS, 2016).

It is at this point that the pedagogical approach of Paulo Freire, which emphasizes liberation, and the Theatre of the Oppressed, created by Augusto Boal, intersect one another and produce the photonovel presented in the YH3T, creating a positive feedback loop (BARBOSA VC, 2021). While honoring the great pedagogue, the theatrical artist emphasized his legacy of prioritizing dialogue:

Teaching, according to our master Paulo Freire, is a transitive process; it is a dialog, as all human relationships should be - between men and women, black and white, classes and classes, and countries and countries. But when these dialogues are neglected or not actively demanded, they become monologues: only one "interlocutor" has the right to speak - one gender, one class, one race, one set of countries. And the oppressed are reduced to silence and obedience. According to Paulo Freire's concept of oppression which is when the dialogue turns into a monologue (translation mine) (BOAL, 1997, p.2).

To preserve the initial theoretical dialogue between the pedagogy of Paulo Freire and the artistic approach of Augusto Boal, which led to the development of the 'Theater of the

Oppressed' (CANANDA, 2012), our thesis also invites other experts, such as Victor Valla, Carlos Rodrigues Brandão and Gil Sevalho, to contribute with their insights about mediators.

To better clarify this master thesis meaning, YH3T is an Educommunication tool presented in the form of a photonovel. Its fictional characters represent people affected by preventable or manageable illnesses, their complications, or health-threatening environmental situations in their everyday life. The tool also aims to highlight and discuss the quality of care for these diseases and the negative effects of continuous exposure to disempowerment and disinformation, ensuring a high level of engagement.

From this perspective, YH3T is a simple and accessible Educommunication technology that has the potential to reach and impact a large audience anywhere, anytime, worldwide. Its simplicity and universality make it a promising educommunicative tool. These characteristics can help overcome the apparent dichotomy between traditional popular knowledge and validated technical-scientific knowledge in health matters and can be valuable both at the forefront of health systems and in the territory, creating valid syntheses while dialectically correcting misinterpretations (WITTTLIN, 2013). In other words, dialectic should not arbitrarily or prejudicially oppose the generally accepted categories derived from the top-down and bottom-up approaches, but rather seek to intersect them to produce new knowledge. This newly discovered knowledge is a third entity derived from the valid information provided by both categories. A favorable opportunity for "circularity" between these categories exists. It should be embraced without reservation. As mediators, we hold a valuable position in promoting and legitimizing this "circularity".

In this regard, YH3T is part of an assumption accepted by numerous authors, according to which active processes and methods that encourage greater participation are more effective (MORÁN, 2015), at this point in achieving the adoption, improvement or modification of health behaviors, the recognition of health-related rights and responsibilities, and the fight against disinformation. The field of Health Educommunication contributes to these accomplishments by playing a crucial role in promoting a very high level of participation among individuals.

### **3.4.1 YH3T's mode of operation**

This master's student selected several examples from the Sesc RJ repository to illustrate the purpose of YH3T, which is divided into two dimensions: one aimed at formative



interventions or training for health literacy mediators (Figure 2), while the other focuses on broad social mobilization in the health field (Figures 3, 4 and 5).

(Please note that the words and icons accompanying the images below do not appear during the real-time projection. In YH3T photonovel, participants perform without a 'voice'. This distinguishes this tool from others that use photos with text. For example, it is different from the *photovoice*, which is generally based on documentary images for the telling of a story. "In our version of photo novella, people photograph the home place, village, or environment in which they work, play, worry, and love." (WANG; BURRIS, 1994, p. 178). Photovoice and YH3T differ in that photovoice provides titles and captions for its documentary photos, giving the images a 'voice'. Moreover, these photos are typically shown to the broad public well after they were taken.

In any case, YH3T happens in real time. The participants will have agreed that the three photographs tell a story. Thus, in real-time, words or emoticons are not needed to dramatize and codify the generative theme. In the next moment, this agreed topic will be decoded in the conversation circle.)

Figure 2 - AIDS & STIs. Banning discussions on sexuality does not cancel them



Source: (proprietary, 2019)

**Context:** 1st Municipal Symposium on HIV: And the struggle continues. December 2019 (co-hosted by the Nova Friburgo Health Municipal Secretary and the health management and local unit of Sesc Rio de Janeiro). The symposium was attended by 99 participants. The participants included managers, doctors, nurses, psychologists, social workers and others. **Script:** # Photo 1: Each participant represents a gender (male or female) and makes a gesture with their hands indicating their possible sexual inclinations; from left to right, the participants are "Álvaro", "Sueli", "Marcelo", "Carlos", "Ana", and "Andreia" (fictitious names). # Photo 2 shows the participants making a gesture to indicate that they have been told by someone else not to talk about "uncomfortable" subjects. Finally, # Photo 3 depicts the potentially tragic consequences of enforced alienation. **Observational results:** The YH3T photonovel sparked a discussion about sex and sexuality. It provided a basis for addressing the biopsychosocial components of AIDS and STIs. The use of YH3T encouraged active participation and critical thinking among attendees. **Note:** No words or emoticons were presented during the live projection of the three photographs that comprise YH3T. The photonovel was the result of the performance of the participants in the YH3T dynamic. It was presented in silence, without a 'voice' (mandatory in the case of photovoice), since the entire audience had already defined the story that would be discussed. It is worth mentioning that every photonovel is always stylized and pseudonymized.

Figure 3 – Measles: prevention at the right time



Source: (proprietary, 2020).

**Context:** Winter Festival 2020 in the city of Duas Barras, sponsored by Sesc RJ. One of the activities at the socio-cultural event featured the participation of around 40 children aged between 5 and 12 and 3 adults. **Script:** # Photo 1 shows "Joni" trying to avoid getting vaccinated against measles. # Photo 2 captures the distress of his "Grandmother Maria" at his refusal. # Photo 3 shows the child not only facing the vaccine, but also comforting "Helena" who cried on the queue at the prospect of getting vaccinated. **Observational results:** After acceptance

of the audience, we engaged with the children on the topic of vaccines exploring the YH3T tool. The focus was on the measles vaccine, which was available through the city's public health program but had low uptake. The pictures for the photonovel were selected by the kids and projected on the wall, generating active participation and engagement during the conversation. Note: No words or emoticons were presented during the live projection of the three photographs that comprise YH3T. The photonovel was the result of the performance of the participants in the YH3T dynamic. It was presented in silence, without a 'voice' (mandatory in the case of photovoice), since the entire audience had already defined the story that would be discussed. It is worth mentioning that every photonovel is always stylized and pseudonymized.

Figure 4 - Instead of chloroquine, vaccines are the real medicine

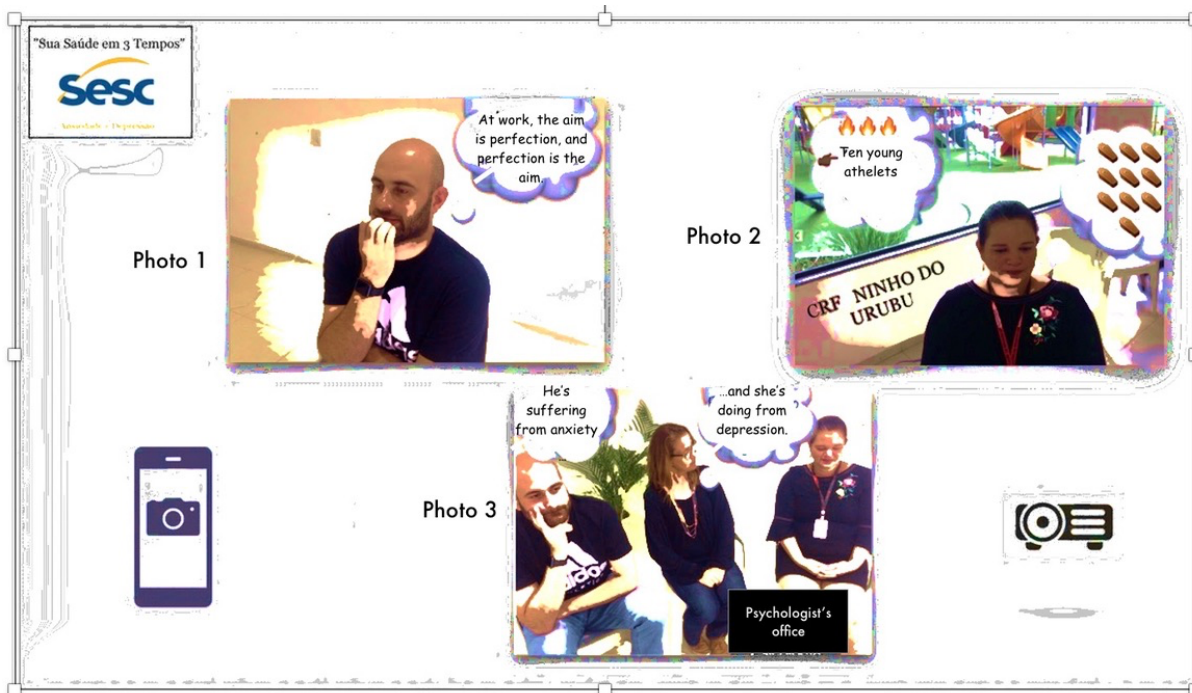


Source: (proprietary, 2021).

Context: **Internal Week for the Prevention of Work Accidents (Sipat) at Fecomércio RJ.** Approximately 70 employees had a meeting to discuss Covid-19 pandemic prevention strategies. Several individuals failed to adhere to the mask mandate within the workplace, while others expressed support for unproven treatments such as chloroquine, azithromycin, and ivermectin. Observational result: With the generative topic agreed upon by participants and codified by YH3T, the conversation circle proceeded to decode it. The debate opened by the conversation circle was characterized by an intense engagement with critical analysis. Note: No words or emoticons were presented during the live projection of the three photographs that comprise YH3T. The photonovel was the result of the performance of the participants in the YH3T dynamic. It was presented in silence, without a 'voice' (mandatory in the case of photovoice), since the entire audience had already defined the story that would be discussed. It is worth mentioning that every photonovel is always stylized and pseudonymized.



Figure 5 - Anxiety and depression: differences between both



Source: (proprietary, 2019).

**Context: Meeting at CR Flamengo.** The human resources department of the famous football club asked Sesc RJ's health education team to deliver a presentation on anxiety and depression, after ten adolescent players lost their lives due to a fire in the Ninho do Urubu accommodation. To differentiate between the two different but often related mental illnesses, we decided to talk about them through the YH3T. **Script:** # 1st photo - "Claudio" spends the entire day stressed and biting his nails, unsure if he will be able to meet the work targets set for him. # 2nd photo - "Marina" reports relevant loss of concentration, appetite, social interaction, and sleep because of the vivid memories of the traumatic event in which these boys died. # 3rd photo - The psychologist "Tânia" defines her diagnostic suspicion for both individuals. **Observational results:** The YH3T photonovel involved 56 participants who actively participated in the conversation aimed at clearing up doubts and clarifying psychotherapeutic approaches, as well as identifying possible medications that might be appropriate. **Note:** No words or emoticons were presented during the live projection of the three photographs that comprise YH3T. The photonovel was the result of the performance of the participants in the YH3T dynamic. It was presented in silence, without a 'voice' (mandatory in the case of photovoice), since the entire audience had already defined the story that would be discussed. It is worth mentioning that every photonovel is always stylized and pseudonymized.

### 3.5 LEGISLATION

Educommunication in health, as a highly participatory form of health education, has yet to expand in Brazil. It is anchored in a stimulating factor, an important legal and conceptual framework: the National Policy for Popular Education in Health in the Unified Health System (PNEPS-SUS), set up by the Ministry of Health (BRASIL, 2013).

Although this decree was neglected by the previous government (2019-2022), it continued to serve as a reference point for the development of educommunicative efforts in the health sector, for the interests and aspirations of the people. Remarkable resilience has been observed, achieved through a re-invented counter-hegemony, whether in the formal spaces of state or municipal governments that are averse to the socially exclusionary and anti-popular federal government, or in the non-formal spaces developed by NGOs and the like, for example, among refugee groups <sup>9</sup> and informal groups in favela and peripheral communities, quilombolas, and indigenous reserves (BONETTI, 2021).

Other legal provisions also facilitate the growth of Educommunication in health promotion and healthcare. The Municipal Law 13.941 of 2004 in the city of São Paulo, for example, seeks to incorporate Educommunication practices in its various departments. Similarly, at the federal level, since 2005, the Ministry of the Environment has embraced the educommunicative method as a framework for the department's environmental education program. The Ministry of Education has adopted Educommunication as a basis for transferring resources to innovative projects in secondary education, covering over 3,500 institutions throughout Brazil.

On the cutting edge of the healthcare system, at the intersection with the territory, there is now an opportunity to reinvigorate the Family Health Strategy (ESF). <sup>10</sup> According to the guidelines of the ESF, doctors and nurses should dedicate at least half a shift (2 hours per week) to consulting with patients regarding prescription updates and requests for complementary tests. This can be viewed as an authentic and standardized opportunity for the collective and collaborative practice of Educommunication in health promotion and healthcare, which requires a true participatory engagement of SUS users.

In this regard, it is crucial to rely on the educommunicative involvement of Community Health Workers (CHWs), given their frequent proximity to patients. A ministerial ordinance (BRASIL, 2006) stipulates, among other things, that the CHWs must "(...) be in permanent contact with families, developing educational actions aimed at health promotion and disease prevention (...)" (translation mine).

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<sup>9</sup> The RIO REFUGIA meeting, which took place at Sesc Tijuca in Rio de Janeiro in 2019 (see <https://www.acnur.org/portugues/2019/06/26/festival-rio-refugia-atrai-multidao-e-celebra-integracao-entre-brasileiros-e-refugiados/>), was a interesting moment to test the use of SS3T

<sup>10</sup> Interview with the Minister of Health, Nísia Trindade, on the show RODA VIVA, broadcast on 06/02/2023 (view at <https://www.youtube.com/watch?v=bIH8dZV4Y6I>)

#### 4 METHODOLOGICAL PATH

The methodological path followed in this thesis opted for an exploratory design with a qualitative approach, as this is "very useful for building or developing theories or conceptual frameworks, or in other words, for generating hypotheses" (SOFAER, 1999, p.1104). Or to clarify "conceptual issues or assumptions" (translation mine), as Deslandes (1993) suggests.

The next part will indicate the circumstances and the reasons why this thesis is based on a small-scale *ex post facto* study, highlighting the correlational model, which aligns with the methodological approach postulated below:

When translated literally, *ex post facto* means 'from what is done afterwards. In the context of social and educational research the phrase means 'after the fact' or 'retrospectively' and refers to those studies which investigate possible cause-and-effect relationships by observing an existing condition or state of affairs and searching back in time for plausible causal factors. (COHEN; MANION; MORRISON, 2007, p. 264).

In this *ex post facto* study of the YH3T, the dependent variable is the intense involvement of the participants in the conversation circles. This effect of high involvement is examined retrospectively to determine whether the joint management of the YH3T, the independent variable, is the causal factor in this engagement. <sup>11</sup>

The study uses mnemonic retrieval to evaluate the educommunicative intervention conducted with the YH3T tool. This tool is so named thanks to the use of three photos taken with a smartphone to encourage the participants to engage in a lively and productive dialog. Participants come together to address one or more real-world health issues and develop insights into them using a comic book style photonovel, which is constructed and then discussed in a conversation circle. It is important to note that this intervention was initiated in response to institutional needs, without prior research, and has been implemented approximately 200 times. First, in a family health clinic and a socio-educational unit for juvenile offenders in São Bernardo do Campo, São Paulo, and later with the public mobilized

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<sup>11</sup> Intense participatory involvement was always empirically perceived by this author in the different occasions where the SS3T intervention was applied in the SUS of São Bernardo do Campo, State of São Paulo, and in different cities of Rio de Janeiro State served by Sesc RJ.

by the Social Service of Commerce of the state of Rio de Janeiro (Sesc RJ),<sup>12</sup> between 2016-2018 and 2018-2021, respectively.

The methodology of this thesis uses an *ex post facto* approach for two reasons. First, YH3T was not originally planned for academic research, but rather to respond to the daily need for HL interventions among patients (in São Bernardo do Campo) and, later, among the public (in the State of Rio de Janeiro), as required by the bosses. And the second reason is that, in 2021, unforeseen circumstances prevented the author of this study from conducting an experimental study in two focus groups in Sesc RJ, which would have been the basis for a qualitative-quantitative thesis on YH3T. Furthermore, while conducting the mnemonic retrieval study based on a sample of YH3T tool use, a new problem emerged: specifically, the huge number of photos created during the first implementation of the tool at the ESF of UBS Batistini UBS and the Foundation CASA in São Bernardo do Campo (SBC) between October 2016 and March 2018 was digitally corrupted. During this period, multiple meetings occurred 1-2 times a week for two years with patients at the UBS and young people detained at the Foundation CASA.

Thus, anticipating the limitations of this thesis, this mnemonic retrieval begins with an *ex post facto* approach without photographic examples, limited to an exclusively literary recollection of the most striking cases of YH3T during the first two-year period of his use in SBC. The following period between April 2018 and May 2021, at Sesc RJ, saw the creation of an extensive personal repository, consisting of many records detailing the usage of YH3T for addressing health issues and problem situations (These issues include hypertension, violence, protective measures against COVID-19, parasitic worms in children, adherence to vaccination campaigns, combating sexual harassment, "pushing therapy" and self-medication, suicide prevention, prophylaxis and treatment of AIDS and sexually transmitted infections, etc).

In accordance with the methodological approach of the pseudo-experimental research model, this thesis discusses a possible correlation in a retrospective way. Engaging with health issues and situation problems generated by regular use of YH3T suggests a positive association with the observed high-intensity user participation. This increases the potential for

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<sup>12</sup> The Health Education Activity Module of the Sesc RJ Technical Manual was written by this Master's student during his time as Health Manager at Sesc RJ, published in 2021 on the company intranet, and refers to the use of YH3T.

users to adopt, improve, or change their prevention or care habits, recognize and mobilize for their rights and responsibilities, and combat health disinformation.

Therefore, this thesis proposes to present itself as a construct using an *ex post facto* research design. This approach follows some principles shared with experimental research. For example, it suggests that the high-intensity engagement observed in the users who create a YH3T experience – and, in turn, are exposed themselves to it – is due to their leading role in the operation of the mentioned educommunicative tool. In other words, it goes back in time to identify plausible factors <sup>13</sup> that may have contributed to achieving the effect of highly intense audience participation.

By hypothesis, if the author of these study was able to go ahead with his initial intention to carry out a quali-quantitative research at Sesc RJ – a step that was aborted for reasons beyond his control –, by bringing together two focus groups of Sesc public and subjecting them to different educommunicative health interventions (one exposed to YH3T, the other not), the research could possibly determine differences in the degree of participatory involvement of both groups.

In this *ex post facto* experiment, this student researcher recalls only interactions with the groups that participated using YH3T. The participants had varying ages, literacy levels, and class situations, but all showed a high level of engagement while using YH3T together. Thus, the *ex post facto* approach applied to the practical use of this Educommunication tool was able to transform a retrospective nonexperimental design into a pseudo-experimental study.

The following three examples can be reported in this *ex post facto* study: (i) In 2018, a discussion group using YH3T on breast cancer prevention generated higher participation among the 36 female employees in Petrobras than the doctor's lecture on the topic. (ii) In 2019, a psychologist gave a presentation to 56 employees at CR Flamengo on anxiety and depression following the death of 10 teenagers in a fire at CT Ninho do Urubu. But the audience was less interested in this presentation than in a discussion group on the same subject using YH3T. (iii) In 2020, a meeting was held with workers and leaders of the Fecomércio RJ system to discuss the arrival of COVID-19 in Brazil, but the discussion group

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<sup>13</sup> The YH3T was always a collectively shared experience in real-time and would have helped promote the high participation observed. In each conversation circle, participants used this educommunicative tool to project the selected generative theme, script, and group of three photos.



generated by YH3T had more active participation than the talk given by a brilliant INI/Fiocruz scientist in the Federation auditorium in February.

It should be reiterated that this *ex post facto* research on YH3T offers data that were already collected. They were not originally obtained for research purposes, instead came from an intervention conducted prior to this thesis. This master's student is aware that there are limitations to this method, such as the likelihood of confounding of the variables that are being studied. Consequently, it is necessary to be vigilant in this regard.

In preparing this thesis, this master's student follows five steps, not exactly in the order listed below, which have been numbered only for didactic purposes.

In the first step, answering the guiding questions posed in the thesis, chooses as its topic of investigation the potential of YH3T to attract high-intensity users' participation. Here, this tool is presented as an operational concept that uses the camera lens of a smartphone in a simple, shared and highly participatory way for Educommunication purposes aimed at: (i) achieving, developing or improving HL among the population; (ii) dealing with acute and chronic diseases and illnesses in the field of public, environmental, occupational and community health; and (iii) facing various health problem situations.

In the second stage, the author of this thesis recollects his experiences with YH3T in practical applications at UBS Batistini and the CASA Foundation, both situated in São Bernardo do Campo in the state of São Paulo, as well as with audiences in large and medium-sized events promoted by the private/public institution Social Service of Commerce of the state of Rio Janeiro (Sesc RJ). On all occasions, the educommunicative actions were inspired on Paulo Freire's principles, Augusto Boal's aesthetics, and the Victor Valla's mediation model, as referenced earlier.

In the third step, significant image materials are chosen from the practical implementation of YH3T at Sesc RJ and connected to the underlying concepts (subsumers and new ones) of this tool.

In the fourth step, a literature review was carried out to examine the premises of health education, alluding to (i) the processes, technologies and methodologies most used and (ii) the

"negotiation" between the new knowledge associated with the praxis born from the YH3T experience and the subsumers<sup>14</sup> that influenced it (SOUZA FILHO; STRUCHINER, 2021).

In the fifth and last step, these subsumers, which call for the participatory involvement of the public but are not yet effective in practice, are confronted with the educommunicative tool YH3T, which defines, seeks and realizes a high-intensity public participation.

#### 4.1 METHODOLOGY

The *ex post facto* methodology utilized in this thesis is based on the terms established by Sofaer (1999), Cohen, Manion & Morrison (2007), and Simon & Goes (2013), and is considered a pseudo-experimental research (or experimental research on reverse). This research model is an alternative approach when the event in question has already occurred and certain potential hypotheses regarding cause and effect or possible correlations between variables can be considered. Here, it is worth recalling that no other participants or human characteristics can influence them anymore, as cited by these authors.

Based on a retrospective, pseudo-experimental research model, the hypothesis is that the shared use of the YH3T Educommunication tool (the independent variable) is positively associated with the active engagement of the users (the dependent variable) in addressing generative health themes and problems situations. This is a promising way to adopt, improve or change habits of prevention or care, to promote awareness and social mobilization around rights and responsibilities, and to combat disinformation in this area. An *ex post facto* design, utilizing experiments which have already occurred, and driven by YH3T, converts non-experimental research into pseudo-experimental research.

Using Bloom's Taxonomy as a foundation, the thesis explores the potential for incorporating memorizing and recalling techniques within the cognitive domain of a qualitative methodological design (COSTA MAF; COSTA MFB; ANDRADE, 2014). At least for the time being, this master's study does not require a more precise representation of the sample, which can be done in a future Ph.D. study. Applying the qualitative methodology of *ex post facto* approach, this thesis aims to analyze and discuss the potential cause-effect relationship between the use of YH3T (the cause) and the intense involvement of users (the

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<sup>14</sup> Souza and Struchiner (2020, p. 92) define subsumers as "appropriate prior knowledge". In this thesis, it refers to Freirian and Boalian subsumers.

effect)<sup>15</sup> aimed at adopting, improving or changing health habits, developing social recognition and mobilization for health rights and responsibilities, and increasing resilience to disinformation exposure.

## 4.2 SEARCH STRATEGY AND SOURCES OF INFORMATION

Finding an answer to the main research question focused on keywords describing the barriers of this thesis. These keywords were "Educommunication," "Smartphone," "Photography," "Social Participation," and "Health Literacy." The question posed was "Can the YH3T Educommunication tool increase people's health literacy by facilitating very intense participation in the health system and in the territory?"

Subject descriptors were searched to meet this strategy and selected through the *Health Science Descriptors* (DeCS) and *Medical Subject Heading* (MeSH).

The sources of information for the electronic search were national and foreign. These were the *Virtual Health Library* (LILACS, MEDLINE etc.), *The National Library of Medicine and National Institutes of Health* (PUBMED), the *Capes Journal Portal*, *Science Citation Index Expanded* (Web of Science), *Scientific Electronic Library Online* (SciELO), *Scopus* (Elsevier), *Taylor & Francis* (online Journals), *Google Scholar*. Some printed works also served as a source of conceptual and experiential information concerning the outcomes and restrictions of the research, etc.

To consider the prior knowledge (subsumers) as for this work, this master's student used conceptual and empirical resources, including articles from journals (written or electronic), books, chapters of books, conferences, websites, magazines, personal letters, media interviews, and resolutions and ordinances published on official websites.

Texts written in Portuguese, English, and Spanish were utilized, irrespective of their production year.

## 5 OUTCOMES

As mentioned above, this thesis is written using a qualitative approach, *ex post facto* and pseudo-experimental, due to untimely events that occurred during its construction and development process. The entire photo-digital collection of São Bernardo do Campo, created

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<sup>15</sup> Intense participatory involvement aimed at: 1) adopting, improving, or changing health habits; 2) recognizing/mobilizing for rights and duties; and 3) developing critical thinking in the reception of journalistic and digital information by participants.

between 2016 and 2018, was corrupted; therefore, this period is retrieved only through literary memories. In Sesc RJ, in turn, external institutional circumstances prevented the implementation of a sample survey; hence, the only alternative is the possibility of a retrospective study of photos taken during the period 2018-2021.

### 5.1 PIONEERING PHASE OF YH3T USE IN SBC (2016-18)

Your Health in 3 Takes was initially implemented during patient meetings at UBS Batistini in SBC, in the state of São Paulo. YH3T was an intervention tool created to address a specific organizational need at SBC Health Services, namely, the medical staff had been asked to persuade UBS users to reduce their consumption of omeprazole (many patients abused this drug just to "prevent" stomach pain after eating fatty meals of their choice). It happens that medical literature reports serious side effects<sup>16</sup> associated with the misuse of omeprazol, usually prescribed for acid-related diseases.

However, the attempts to persuade the patients to stop taking the drug during individual consultations soon proved to be unsuccessful. Some went so far as to insult this doctor and complain to UBS management after having been orientated to stop abusing omeprazole.<sup>17</sup> This led to the idea of giving this effort a more collective approach by exploring Educommunication tools. This doctor asked himself a question: could the smartphone camera provide an alternative method of exploring experiences involving the use of omeprazole through dramatization, by encoding them into a 3-picture photonovel with the goal of achieving the necessary literacy? Routinely held collective meetings with patients at the Basic Health Units provide an ideal space for opening up dialogic participation as intended by the photonovel model. These weekly meetings, usually attended by 10, 20, 30 or more people, are aimed at renewing requests for medical tests and prescriptions for patients with chronic illnesses, sharing instructions with pregnant and breastfeeding women, and so on.

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<sup>16</sup> Among the main side-effects are osteoporosis, dementia and cancer of the breast.

<sup>17</sup> For instance, to be able to eat *feijoada* (considered the national dish of Brazil) or before taking medication for high blood pressure, diabetes, anxiety/depression, etc.

It is noteworthy that about three months after the initial YH3T experience, the local pharmacist told this doctor that he was very pleased with the low dispensing of omeprazole at the UBS pharmacy.<sup>18</sup>

The success achieved in this pioneering endeavor would serve as a prototype to address other demands. In 2017, there was a combined outbreak of arboviruses in the state of São Paulo, especially dengue and yellow fever, which reached the municipality of São Bernardo do Campo. To make matters worse, some people took irrational and inappropriate measures to avoid yellow fever. Some began to kill monkeys in the rural areas of the Batistini district, considering them to be the "villains" of the disease; others, ignoring the 10-day "catch-up" period for vaccination, wanted to take the yellow fever vaccine and travel on the same day to cities known to have a yellow fever outbreak.

Sharing YH3T to empower patients to become more aware of the proper ways to prevent arboviruses, recognize their signs and symptoms, and know when to seek medical attention emerged as a promising educommunicative intervention. The passivity of the UBS users, observed during the routine meetings to request tests and to update prescriptions, was replaced by an intense participation in the interactions offered by the YH3T.

From then on, the weekly meetings with dozens of patients at UBS Batistini became a valuable opportunity for in-depth discussions with them on a variety of generative health themes. Subsequently, these themes were coded using the YH3T tool and then decoded in high-level participatory conversation circles. Topics included self-medication, misuse of tranquilizers and antidepressants, patients' desperate search for tests, alcohol addiction, undertreatment of chronic diseases, breastfeeding, prevention of female and male cancers, the rights and responsibilities of the Brazilian population regarding public health, disinformation about health, etc. All of this helped to create a calmer environment in the doctor's office, which had previously been disrupted by dissatisfied patients who were asking a lot of questions and making interpellations about the medical advice they were receiving. The medical act, combined with health educommunicative interaction, would create a virtuous circle resulting in a welcomed patient experience at the UBS.

In parallel with the success of the abovementioned combination in this primary health care center, the SBC Health Department expressed the desire to expand the ambulatory care and educommunicative interactions to the CASA Foundation in the same municipality.

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<sup>18</sup> Until then, the pharmacist was unaware that patients were using YH3T to discuss the drug, its indications and side effects.

This facility accommodates male adolescents who commit infractions and are detained for socio-educational measures. Every week for one year, we discussed various topics that were relevant to around seventy teenagers, including sexuality, STIs, and AIDS; early pregnancy prevention; alcohol and drug use; contagious skin diseases (especially scabies); tuberculosis; and vaccination. Using YH3T as an educommunicative tool to spark conversation circles resulted in active involvement from young participants. The multidisciplinary team from the CASA Foundation reported to this doctor that the kids appreciated too much the educommunicative activity.

However, during this pioneering period of using YH3T in SBC, it is important to note the following failure observed about the nurses and CHWs who this doctor worked with: they demonstrated a low level of interest in the educommunicative process. This low or nonexistent interest on their part to become co-mediators in the YH3T dynamic was not due to a lack of encouragement from this doctor. Instead, it appeared to originate from an undisclosed apprehension regarding sharing information with patients. Maybe they viewed it as a challenge to their supposed authority and status among patients.<sup>19</sup>

This doctor's heavy daily workload prevented him from taking the time to train his coworkers in the use of YH3T, giving them a better context of what the tool was, what its objectives were, how it could be applied and what results could be expected.

Unfortunately, this issue would not be resolved at this early stage in implementing YH3T.

## 5.2 SUBSEQUENT PHASE OF YH3T USE AT SESC RJ (2018-21)

During this period, the YH3T Educommunication tool was used in medium and large events sponsored by the Social Service of Commerce in Rio de Janeiro. Sesc, which is part of the employer network known as the "S" System (Sesc, Senac, Sesi, Senai), is known for its cultural, sporting, educational and welfare activities with a major social impact.

Perhaps less well known is its work in the health sector - except, of course, by those who use the services the "S" offers. These are: nutrition (in its own restaurants and cafeterias and at events), dentistry (fixed operating units for members and mobile units for socially excluded populations), women's health (mobile operating units offering preventive

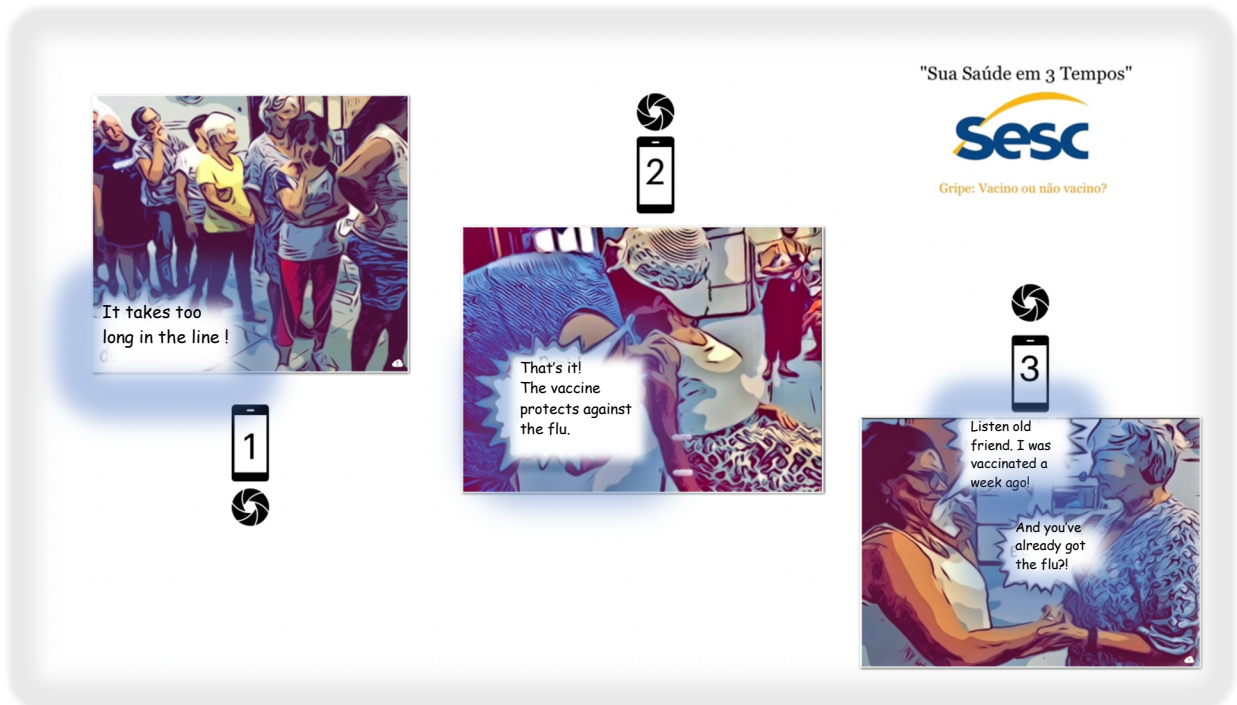
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<sup>19</sup> Moreover, some CHWs seemed to view this increased involvement in health education as an 'extra' effort, beyond their professional obligations, for which they did not want to expend more of their workforce.

examinations for cervical and breast cancer) and health education. In particular, this final activity of the Sesc Health Program is available in various locations, including squares, streets, subway and train stations, bus terminals, beaches, stadiums, private and public companies, public schools, sports clubs, sporting and cultural events, and at the Sesc's own facilities (hotels, fixed and mobile operational units).

In section 2.5, this master's student provided some illustrative cases of using YH3T in these areas. Below are additional cases which, like so many others, showed high-intensity engagement from the participating public.

Figure 6 - Flu: to vaccinate or not to vaccinate?

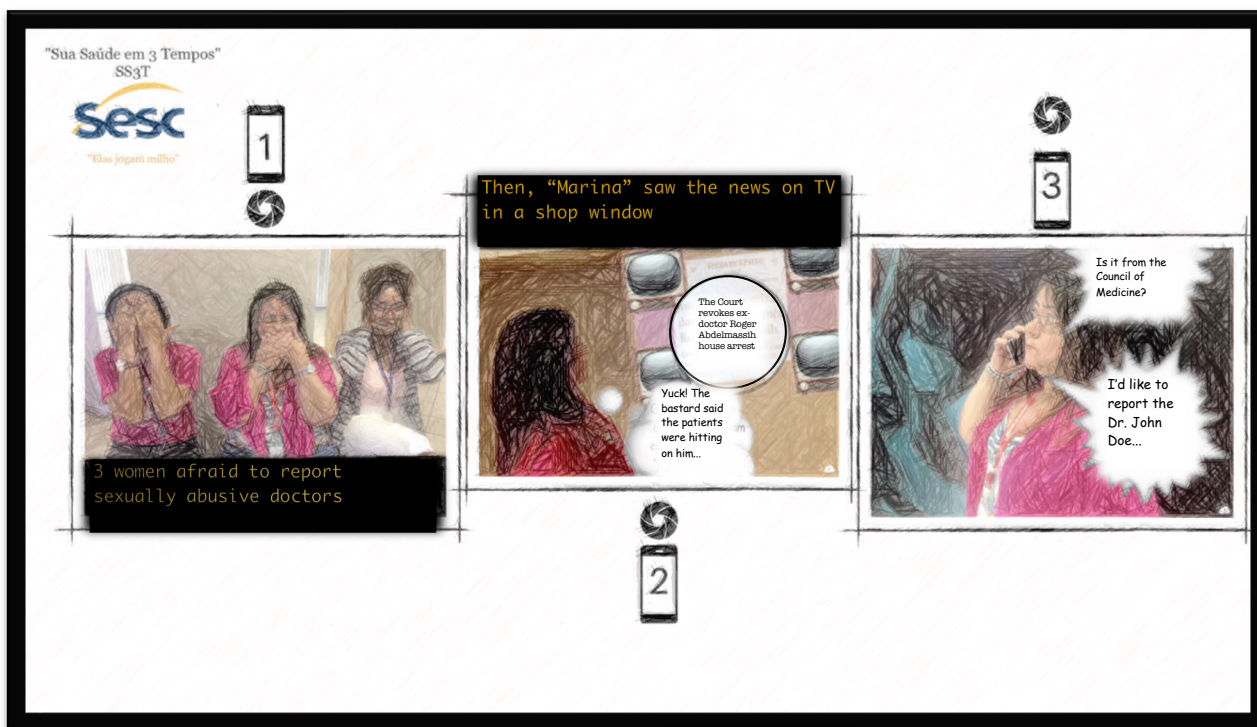


Source: (proprietary, 2020)

**Context:** **Social Work with the Elderly (TSI), Sesc Niterói.** Attended by 37 people over the age of 60, the main theme focused on the anti-influenza vaccine campaign amid the newly emerging Covid-19 pandemic. **YH3T script:** # 1st photo, many people are complaining about queuing to get a vaccine they don't know if it's any good. # 2nd photo, "Mrs. Joana", who had said she didn't want to get vaccinated because she hadn't had a cold in over 12 years, ends up giving in to her daughter's plea and agrees to get vaccinated. # 3rd photo, she complains to her friend that she didn't even give it 7 days and ended up with the flu. **Observational results:** the creation of and exposure to the photo-novella opened up dialogue about the relevance of this vaccine and the common sense (misinformed in this case) surrounding the immunizer. The use of the tool resulted in a great deal of collective participation, highly suggestive of YH3T having helped to advance participants' literacy on the subject. **Note:** No words or emoticons were presented during the live projection of the three photographs that comprise YH3T. The

photonovel was the result of the performance of the participants in the YH3T dynamic. It was presented in silence, without a ‘voice’ (mandatory in the case of photovoice), since the entire audience had already defined the story that would be discussed. It is worth mentioning that every photonovel is always stylized and pseudonymized.

Figura 7 – “They’re hitting on me”



Source (author, 2020)

**Context:** Pink October, Fecomércio RJ. Thirty-two female and seven male employees at the Federation chosen sexual harassment by health professionals towards patients as the generative topic for this YH3T session.

This choice was inspired by the news on the return to prison of Dr. Roger Abdelmassih, a famous gynecologist and serial rapist, who had said in his defense that he only did what he did because "they were hitting on me".<sup>20</sup>

**Script** - In photo # 1, the characters express the silence that usually reigns in patients when they are sexually molested by nefarious doctors. In photo # 2, "Marina" watches through a window of an appliance store the news reports on the return to prison of convicted doctor Abdelmassih. In photo # 3, feeling empowered by the decision made against this rapist, she finally calls the Medical Council, believing that the Council would investigate the conduct of her doctor who recently molested her during a consultation. **Observational results:** The participants were significantly involved in the photonovel created by YH3T. Some female civil servants reported real instances where they experienced sexual harassment by a medical professional at some point in their lives. What's more, many emphasized that they would not accept being exposed anymore to such a situation without reacting. **Note:** No words or emoticons were presented during the live projection of the three photographs that

<sup>20</sup> <https://g1.globo.com/fantastico/noticia/2014/10/elas-sao-doentes-mentais-diz-roger-abdelmassih-sobre-vitimas.html>



comprise YH3T. The photonovel was the result of the performance of the participants in the YH3T dynamic. It was presented in silence, without a 'voice' (mandatory in the case of photovoice), since the entire audience had already defined the story that would be discussed. It is worth mentioning that every photonovel is always stylized and pseudonymized.

Figure 8 – Educators in Dry Law Operation



Source (proprietary, 2018)

**Context:** Conversation with educators involved in Dry Law Operation. The meeting brought together 42 traffic safety educators who were affected by alcohol-related accidents (loss of limbs, paralysis, etc.) caused by themselves or other drivers. **Script:** # Photo 1, found on Google, was selected by an educator to demonstrate the dangers of alcohol use while driving. # Photo 2 shows "Renato" who had a serious accident and demonstrates that the memory of the event continues to affect him. # Photo 3, "Dr. Health's" reflections encouraged "Renato" to become a conscious citizen and help others not drink and drive. **Observational results:** Participants engaged in intense discussions and shared personal stories of suffering, some choosing to turn their lives around and become Dry Law Operation educators, others suggesting new educational approaches to address the challenge of drinking and driving and to improve literacy on this. YH3T was embraced as a means of helping to strengthen this effort. **Note:** No words or emoticons were presented during the live projection of the three photographs that comprise YH3T. The photonovel was the result of the performance of the participants in the YH3T dynamic. It was presented in silence, without a 'voice' (mandatory in the case of photovoice), since the entire audience had already defined the story that would be discussed. It is worth mentioning that every photonovel is always stylized and pseudonymized.

The process of turning a chosen topic into a YH3T photonovel, agreed upon by the participants, and decoding it through conversation circles, has generated impactful results in other locations as well, always with a high level of participation from people.

Age, cultural, social status and literacy/schooling differences were apparently overcome by the widespread and shared use of this Educommunication tool.

Figure 9 – Roundworms, go away!



Source: (proprietary, 2019)

**Context:** Sesc Winter Festival in Itaipava Park, Petrópolis, RJ. Here, 44 children aged 6 to 12 were brought together by YH3T operation and asked if they wished to speak about "worms in the belly". They agreed and then acted out the topic, which was converted into 3 takes. **Script:** # Photo 1, a child took a picture of a group of children playing happily on the ground of the square. # Photo 2 depicts a lineup of children waiting to receive chocolate bars provided by the festival organizers. It shows "Julio" impulsively eating the chocolate without washing his hands. # Photo 3, this boy appears with his belly probably full of Ascaris, receiving medical attention from "Dr. Silvia". **Observational results:** During the projection of the 3 photos, all the children were strongly involved in this activity. The next day, the same script was followed at the Winter Festival in another city, Teresópolis, where it had an identical participatory impact on the 41 children present. In both presentations, the children were disturbed by the migration and "incubation" of Ascaris eggs in the intestines. This led the doctor to conclude that they reached some level of literacy on the subject. **Note:** No words or emoticons were presented during the live projection of the three photographs that comprise YH3T. The photonovel was the result of the performance of the participants in the YH3T dynamic. It was presented in silence, without a 'voice'

(mandatory in the case of photovoice), since the entire audience had already defined the story that would be discussed. It is worth mentioning that every photonovel is always stylized and pseudonymized.

There are many other examples where YH3T demonstrates its ability to foster deep engagement among its users. For example, at the 2019 German-Brazilian Green Rio event, YH3T facilitated a conversation circle with 23 participants. They engaged in a debate about gastric neoplasia linked to the consumption of water contaminated with heavy minerals – a condition present in drinking water supply throughout the state of Rio de Janeiro –, which can affect even those who primarily consume organic food. This theme generated a very active conversation.

In the same year, on World Refugee Day, Caritas and Sesc RJ organized the joint event "Rio Refugia". YH3T was used to facilitate a special conversation circle: 33 participants chose as their generative topic of conversation the inadequate medical care provided to refugees by the Unified Health System (SUS). They highlighted various challenges, including language barriers, cultural differences, dehumanizing treatment by some medical staff, financial constraints related to the purchase of medicines, among others.

On another occasion, 47 high school students from a public school in N. Iguaçú, Baixada Fluminense, State of Rio de Janeiro, used the YH3T Educommunication tool to initiate a conversation circle on adolescent compliance with HPV vaccination. Teachers' participation animated the discussion and facilitated a highly engaging conversation on the topic.

In 2020, the YH3T photonovel encoded information about the Covid-19, which was then publicly presented on the web.<sup>21</sup> This was used as the basis for an online chat with Sesc staff on key aspects of pandemic-related care. Script: In the first photo, "João" complains to his wife "Fernanda" that he cannot smell her perfume. In the second photo, he is reading a laboratory report that indicates that he is no longer in the acute phase of the disease. In the third photo, just five days following the onset of symptoms, "João" is seen on the beach, playing footvolley - downplaying that he still can communicate the SARS-CoV-2 to others. (Note: It should be noted that this and all other YH3T photonovels are always pseudonymous and stylized)

During the second half of the year, the Sesc board made the decision to reopen hotels and restaurants operated by the organization. The YH3T educational communication tool was

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<sup>21</sup> <https://web.facebook.com/watch/?v=2726555560934783>

then used to facilitate participatory discussion groups in a hotel in Copacabana (43 people attended) and a restaurant in Norte Shopping (42 people attended). The focus was on preventing the spread of the novel coronavirus by promoting good hygiene practices.

In 2021, a YH3T session on IBM Brazil's national intranet brought together more than a hundred employees in a highly participatory session on topics including sexual diversity, the resurgence of AIDS, syphilis and other sexually transmitted infections, and effective measures to prevent them.

On many other occasions, the use of YH3T consistently achieved successful exchange of experiences and knowledge between Sesc health educators and their audiences in various neighborhoods of the capital <sup>22</sup> and cities within the state of Rio de Janeiro. <sup>23</sup>

However, as happened in the pioneering period in SBC, the YH3T intervention at Sesc RJ encountered a similar setback: its team of health educators <sup>24</sup> made few advancements in utilizing the tool, with few exceptions. The vacuum that existed at UBS in São Bernardo do Campo was repeated here, perhaps even more critically, because the social enterprise in Rio de Janeiro had better conditions for the training of its employees. This was planned, but it faced obstacles in getting implemented. And one of the main barriers present in a significant portion of Sesc health educators was their apparent identification with "domesticating education" in their mediation with the audiences. Therefore, there was little or no interest in receiving training to operate an educommunicative tool, such as YH3T, which is founded on a concept of "liberating education". The departure of this master's student from the Sesc social company in the second half of 2021 would prevent his ability to counter the "domestication education" conducted by his colleagues and to provide the planned training for them in the implementation of YH3T.

## 6 DISCUSSION

Although the past century witnessed an unprecedented expansion of scientific and technological knowledge, there are concerns that innovative activity is slowing [...] Papers, patents and even grant applications have become less novel relative to prior work and less likely to connect disparate areas of knowledge, both of which are precursors of innovation (PARK; LEAHEY; FUNK, 2022, p.138).

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<sup>22</sup> Tijuca, Flamengo, Gávea, Ramos, Engenho de Dentro, Madureira, Copacabana, Barra da Tijuca, Centro e Cachambi

<sup>23</sup> Barra Mansa, Paraty, Miguel Pereira, Teresópolis, Petrópolis, Itaipava, Nova Iguaçu, Nova Friburgo, Duas Barras, Campos, Rio das Ostras, Niterói e São Gonçalo

<sup>24</sup> Sesc RJ's health educators are professionals with backgrounds in nursing, dentistry, physical therapy and other health-related fields.

It is difficult to present an initiative – even the most modest ones, like Your Health in 3 Takes – as something that aims to be incrementally innovative at the intersection of education and communication. At Sesc RJ, the legal department suggested registering the YH3T educational tool with the National Library, but my daily responsibilities prevented me from doing so.

The literature review for the thesis posed many limits. For example, it was not possible to determine whether a practical model exists that uses smartphone images in the same way as YH3T does somewhere in the world. In other words, this study could not answer the following question: does such a model exist and was not identified by this master's student, or did he initiate it?

On the other hand, no literature was found comparing the effectiveness of different Educommunication tools in the field of health or related fields such as the environment. For this reason, this masters' student presented the authored qualitative Table 1, shown above, in which he compared his own previous experience in using various tools with that of the YH3T. In other words, the current state of the art regarding the comparative effectiveness of different health Educommunication tools could not be determined with precision in this study.

The methodological choice of this study - the *ex post facto*, pseudo-experimental approach - itself revealed its own limitations: it was conducted without control groups, interviews, or questionnaires. This limited the production of numerical-statistical data.

Confounding factors may have been present in the observation of the dependent variable, which was defined as the extent and intensity of public participation, while the use of YH3T worked as an independent variable. One question remains: It is not impossible that the call to practice dramatization/acting was the primary factor that attracted the participants, rather than the generative themes chosen for the YH3T interactions.

In any event, this thesis does not categorically assert that YH3T has real, practical and immediate impacts on health behavior, awareness of rights and responsibilities, and the mobilization of civil society to fight against disinformation in the field of health information. In the present paper, this master's student simply wants to point out and open the debate on what seems to be a very promising element as an educommunicative tool in the health sector. YH3T appears to be a tool that has the potential to engage and stimulate critical thinking in virtually all its users. Given this, it has the capacity to influence habits, promote the recognition of rights and responsibilities, and foster discernment among its users in the face of the abundance of journalistic and digital information and disinformation related to health.

The results of this longitudinal empirical study are based on about two hundred occasions when YH3T was used over a period of six years. Conversation circles consisting of dozens, sometimes more than a hundred people, were able to re-appropriate the content created in the YH3T experience.

These usual conversation circles, whose format is described by Moura and Lima (2014), were given a novel form of incremental reinforcement by Your Health in 3 Takes. This resulted in increased participation that exceeded initial expectations.

Previously, this master's student had used various visual and audiovisual tools such as drawings, posters, photos, and videos. O'Brien (2007) proposed the idea of "Visible Voices", which emphasizes getting the community involved in the entire process of using these tools, especially participatory videos and photovoice.

However, a major limitation in making these is the practice of editing, since non-professionals, after filming or photographing something or someone, usually don't show the desire or talent to edit the filmed or photographed material.

With its impressive immediacy and extreme ease of use - requiring no editing skills - YH3T was found to be more agile, versatile, and engaging than participatory video and photovoice. Coming up with a generative health theme, acting it out amateurishly, posing for 3 dramatized moments, clicking on a smartphone photo app, displaying the created photonovel on one of the 4 walls, discussing the content of the projected images in a conversation circle. In the observation of this master's student, these were steps that overcame barriers and proved to be within the reach of all participants, regardless of age group, level of literacy and education, cultural and religious tradition, place of work, study, residence, and social class.

The author is in no way saying that participatory videos, photovoice and other visual tools are useless or have lost their usefulness. He is simply pointing out, by way of comparison, that: (1) from a Freirian perspective of intense public participation, Your Health in 3 Takes seemed to produce in the public a greater and broader sense of belonging to the visual product created; (2) from a Boal's perspective, the dramatizations codified in YH3T, which gave centrality to the participants' experiences in the multifaceted world of health, suggested that they contributed more decisively to the awakening of the desire for intense participation by everyone; and (3) consistent with Valla's (1996) recommended mediation approach, the implementation of YH3T seemed to give participants a prominent role in the production and decoding of the photonovel dialogue. Specifically, YH3T participants played a

leading role in selecting the generative theme, creating a dramatization, taking three photographs, and confirming that the trio of images told a story that was condensed into a phonovel projected on the wall.

In each application of the YH3T educative tool (the independent variable), this author perceived a strong public participation (the dependent variable). Consequently, it was observed its potential to replicate everywhere, in Brazil and in other countries. Each instance involved a distinct, immediate skit, centered around a generative theme, and tailored to the participants. This included an act of dramatization, captured by 3 photographs (encoding), the projection of the resulting photonovel on the wall, which was agreed upon by all participants, leading to the final stage of a conversation circle (decoding).

Regarding the replication potential of the tool, it is noteworthy that foreign researchers have expressed eagerness to investigate or endorse the utilization of YH3T in their respective fields of work. <sup>25</sup>, <sup>26</sup>

Originally designed to be an intervention, Your Health in 3 Takes was intended to achieve a certain level of effectiveness. It was implemented before this tool was identified as a means of merging health education and health communication, and before it evolved into an academic thesis project. YH3T always aimed to achieve results beyond the narrow and limited scope of health surveillance, which is predominantly characterized by top-down prescriptions. Instead, YH3T prioritizes high levels of participation as a central part of its conceptual and operational processes. It replaces vague statements like "what is good for health and what is not", as well as the ready-made phrases like "to prevent this or that illness, everyone must be responsible", "changing your personal lifestyle is essential", and so on.

However, one important result has not been adequately achieved: the consistent training of the mediators in the use of the YH3T, both in the pioneering period of its application in São Bernardo do Campo and in the subsequent period in Rio de Janeiro. In the

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<sup>25</sup> In a three-way email exchange on 23.03.2022, referring to YH3T, two North American researchers commented to each other: "YH3T (...) sounds like a formidable tool for facilitating relevant community discussions about health, illness and recovery." (Helen Osborne of the blog Health Literacy Out Loud) ". "My interest in YH3T (...) is its potential applicability in the various types of community where we have been working - subnormal urban settlements." (Lee Riley, former head of the Division of Infectious Diseases and Vaccinology at the UC Berkeley School of Public Health).

<sup>26</sup> On November 22, 2021, Professor Denise Spitzer of the School of Public Health at the University of Alberta and the Institute for Feminist and Gender Studies at the University of Ottawa reported in an official letter: "Introducing (my) students to "Your Health in Three Takes" strategy has been inspirational to many students, many of whom refer back to it and the issues you raised about community-based methods in health promotion." (see Annex A)

former city located in the state of São Paulo, several possible factors had a negative impact on achieving effective results with the nurse and the CHWs of the family health team. These factors included: the city Health Department did not make time available to train them while working; these professionals, who were overwhelmed with tasks, did not seem open or available to take on additional work; and perhaps, in a way they never made explicit, these healthcare professionals feared losing prestige and influence over the patients by sharing their knowledge.

At Sesc RJ, on the other hand, there were initially better conditions for developing training aimed at the conceptual and operational management of Your Health in 3 Takes. These conditions included a group of professionals who work exclusively in the Health Education program for 40 hours per week; their experience in the use of various educommunicative languages; the availability of time for Educommunication training in their daily work schedule; a technical booklet containing guidelines and an infrastructure for training workshops, etc. However, in the handling of YH3T, only a few of these professional mediators showed positive development. Others seemed to lack creativity, perhaps due to a lack of will. In practice, they were reluctant to move from a "domesticating" to a "liberating" approach to education, something they considered that could disempower them in the eyes of their audiences.

However, when defending a dissertation, it is necessary to look more critically at the educommunicative tool. Beyond the difficulties of training mediators to use YH3T, there was a need to identify its underlying theoretical principles, review its subsumers, and systematize the lessons learned from its use.

The same critical approach is required to evaluate the methodology of this study, which was conducted in the *ex post facto* or pseudo-experimental manner described by Sofaer (1999) and later by other methodologists. As previously reported, this methodological model was used here due to unexpected circumstances that made a small sample study originally planned to be conducted at Sesc RJ infeasible. In any case, a pseudo-experimental, correlational hypothesis of cause (the use of YH3T) - result (the intense participation of users) required a great deal of memory and an academic treatment no less laborious.

All these efforts will be worthwhile if the contents are available for public and academic debate, the YH3T serves HL with liberating purposes, and this educommunicative tool is accessible to civil society and the SUS.



## 7 CONCLUSION

The application of Educommunication to the health sector is still in its infancy, particularly in terms of facilitating high-intensity interaction among participants. The concepts, processes, and technologies involved need to be more fully and consistently articulated. As a branch of popular health education, it must choose as its starting and ending point the territory in its vast extension, which includes homes, places of work and study, spaces for culture, sports, leisure and worship, squares, streets and high-traffic areas and so on. The entire system, including basic health units, family clinics, health posts and centers, and hospitals, must be covered.

Prioritizing the use of educommunicative tools can provide a large public presence and high-intensity participation. This approach aligns with Freire's pedagogy applied in health education, which emphasizes liberating educational interactions.

Mediators should remove any domesticating health education, as it does not seem to contribute to the adoption, improvement, or change of habits, the conscious recognition of rights and duties, or the development of critical thinking in the face of health disinformation. These goals are best achieved through highly participatory educommunicative tools.

This study was unable to identify any state-of-the-art research on the comparative effectiveness of different tools employed in health education to improve the HL of large groups and populations. Additionally, it was unable to determine which of these tools provide greater or lesser user involvement during the processes of discussing health issues.

So, this master's student presents some final assumptions based solely on empirical observations of his longitudinal health education interactions. It has been generally observed that the effectiveness of a brochure given to lay audiences is much lower than that of a video debate covering the same topic (for example, STI and AIDS prevention). Dialogic lectures may be more effective than conventional ones. The screening of a participatory video<sup>27</sup> typically generates less intense involvement than that produced by YH3T. In general terms, public health campaigns in mainstream media (such as those promoting vaccination or encouraging breastfeeding, for instance) should be accompanied by educommunicative interactions in the places where the population lives, works, studies, has fun, prays, circulates, etc.

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<sup>27</sup> Videos are typically produced by a small team of video makers for a broad audience, and their generative theme and encoding process are not used to being thought about in advance by that same audience.

Your Health in 3 Takes was created at the intersection of the front line of the Unified Health System and the territory and should return to it. This educommunicative tool was designed to be accessible and practical for all. Its simplicity, lightness, instantaneous ease of usage, its attractiveness and enormous capacity for integration, its potential for reproducibility, at a relatively affordable cost etc., all this makes YH3T a significant additional alternative for the educommunicative processes necessary for people's health literacy.

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ANNEX A

LETTER FROM PROF DENISE L. SPITZER, UNIVERSITY OF ALBERTA,  
CANADA



SCHOOL OF PUBLIC HEALTH

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November 22, 2021  
Dr. Flavio Wittlin  
Email: [flavio54@gmail.com](mailto:flavio54@gmail.com)

Dear Dr. Wittlin:

I would like to take this opportunity to send you this letter of appreciation for the many contributions you have made to my graduate students in the School of Public Health at the University of Alberta and at the University of Ottawa, and for our on-going research collaborations.

The generosity you have shown by agreeing to videoconference with my participants in my graduate seminar on gender and globalization provided them with an important opportunity to learn about not only about the deleterious effects of poverty, but also the knowledge and strengths that women in the favelas possessed. Being able to speak with you—and in other sessions interview you one-on-one—brought the world into our classroom in a way that made what their readings (and the lessons they learned) more tangible and immediate. Moreover, the selections of participant-made videos you shared with us helped to not only illuminate some of the problems faced by community members, but also served as an important example of an innovative knowledge communication strategy.

The interview we conducted and have shared for use in my Strategies in Health Promotion class, a required course in the Master's of Public Health's Health Promotion Program, has also been very well received. Introducing students to "Your Health in Three Takes" strategy has been inspirational to many students, many of whom refer back to it and the issues you raised about community-based methods in health promotion, weeks after it was introduced. Your intellectual insights, practical suggestions, and humour have engendered a great deal of discussion and once again students (even from Brazil) have felt that they learned a great deal that they will carry through into their careers as public health promoters.

Finally, I have cherished our opportunities to collaborate on research projects and proposals and look forward to continuing our endeavours to uncover and alleviate health inequities, locally and globally. Thank you once again.

Sincerely,

A handwritten signature in cursive script that reads "Denise L. Spitzer".

Denise L. Spitzer, PhD  
Professor, School of Public Health  
University of Alberta

Adjunct Professor, Institute of Feminist and Gender Studies  
University of Ottawa