

# The Effect of the Health-Trace Map Game towards Motivation on a Clean and Healthy Life Style among Street Children in Surabaya

*by Pipit Festi*

---

**Submission date:** 24-Mar-2021 11:01AM (UTC+0700)

**Submission ID:** 1540897837

**File name:** .\_The\_Effect\_of\_the\_Health-Trace\_Map\_Game\_towards\_Motivation.pdf (372.42K)

**Word count:** 3056

**Character count:** 15969

# The Effect of the Health-Trace Map Game towards Motivation on a Clean and Healthy Life Style among Street Children in Surabaya

Pipit Festy W<sup>1</sup>, Sanda Marta Ari Firmansyah<sup>1</sup>, Yuanita Wulandari<sup>1</sup>, Fathiya Luthfil Yumni<sup>1</sup>

<sup>1</sup>Faculty of Health Sciences, Muhammadiyah University of Surabaya

## ABSTRACT

Street children generally live in a less supportive environment, with inadequate facilities and infrastructure, and a lack of health information. These make street children vulnerable to health problems. Increasing motivation for a clean and healthy lifestyle in street children is a good solution to maintain their health. The Health-Trace Map game is a learning media that can be used as motivation. The aim of this study was to analyse the effect of the Health-Trace Map game as health education media towards motivation on clean and healthy lifestyles among street children. The One Group Pre-Post Test design was used in this study. 30 street children had joined this study. The Wilcoxon Sign Rank Test with a significant level of  $\alpha < 0.05$  was performed to analyse the data. The results showed the p value = 0,000 (p value <  $\alpha = 0,05$ ), from which it can be concluded that the Media Health Trace Map Game had an effect on increasing the Motivation of Clean and Healthy Life Behaviour among Street Children in Surabaya.

**Keywords:** Children, health, media, motivation

## Introduction

The economic crisis situation triggered the emergence of one of the social population problems in Indonesia's big cities, namely the emergence of the phenomenon of the existence of street children.<sup>1</sup> Street children come from poor families, most of whom have experienced a lack of attention and affection from parents and family. The impact of street children can lead to the emergence of thuggery, various diseases, disruption of traffic and comfort of road users, disruption of the beauty and order of the city, crime vulnerability, a neglected education, and even dropping out of school.<sup>2,3</sup> Problems with street children can cause health problems, one of which is that the health of street children living outside the home has not been fulfilled, namely the lack of healthy behaviour because of the physical and psychological needs of street children with limited facilities and infrastructure, such as living in a far from

clean concept (without environmental support), inadequate infrastructure, incomplete facilities. A lack of information makes street children vulnerable to disease.<sup>4</sup>

Based on data from the Ministry of Social Affairs, it is noted that the number of street children in Indonesia reached 16,290 street children. Surabaya, as one of the metropolitan cities in Indonesia, also has not escaped a population of street children. In Surabaya it is shown that there was a significant increase in the number of street children in 2010, with 80 people, in 2011 there were 45 people, in 2012 there were 114 people, in 2013 there were 94 people and in 2014 there are 76 people, in 2015 there were 85 souls of street children. Whereas, in 2014, the number of street children decreased but it was not significant but, in 2015 it experienced an increase again. This shows that the volume of street children from year to year is not stable and the problem needs serious handling from various parties.<sup>5</sup>

The needs of all children are increased, such as educational needs. One effort that can be done to educate street children is to increase PHBS by doing health promotion, since street children need knowledge and motivation about PHBS. By knowing about PHBS, street children will care more about their health.

## Corresponding Author:

Pipit Festy W  
Faculty of Health Sciences,  
Muhammadiyah University of Surabaya  
Email: pipitfesti@fik.um-surabaya.ac.id

Schools or communities, as one of the targets of PHBS in educational institutions, need to get attention given to the large number of school age children, which is 30% of the total population of Indonesia. The period of elementary and junior high school is a period that needs to be instilled in PHBS values and has the potential as an agent of change to promote PHBS both in the school, family and community environments so as to later create quality human resources (MenKes RI, 2011). The impact if there are less PHBS on street children is that most of them are exposed to contract various diseases (such as diarrhoea, tooth decay, skin disease, ear disorders, helminthiasis), learning environments that are not supportive and which reduce enthusiasm and learning achievement in school.<sup>4</sup>

The researcher invited street children to understand the counselling material provided by the Health-Trace Map game method that was different from previous research. That previous research suggested that the application of the Course Review Horay Method had an effect in increasing the average value of knowledge, attitudes, and practices on Clean and Healthy Behaviour (PHBS) in Saptorenggo Elementary School 05, Pakis District, Malang Regency.<sup>6,7</sup> Whereas research that suggests that health education through the Kasugi Card game 3 times affects the increase in knowledge of clean and healthy behaviours, which are the same as students getting 3 times the amount of health education through the lecture method carried out in grade 5 elementary school students in West Bandung Regency.<sup>8</sup>

The Health-Trace Map is a rectangular adventure game played in groups (3-5 people). This game, which aims to train physical skills and cognitive abilities and motivation of children in this game, is very easy and also fun. Therefore, the learning model of the Health-Trace Map game is one of the learning models that can create an exciting and fun atmosphere. Fun learning must consider children as subjects. These comforts include children who are not depressed, accept learning in a relaxed manner but remain focused, have the freedom to ask questions and opinions, get gifts (rewards) that motivate them to be able to change PHBS.

**Method**

**Study Design, Setting and Sampling:** The type of research used is the Pre-Experimental design method using the One Group Pre Test-Post Test design approach with samples taken using Non-Probability Sampling, namely Total Sampling. The population in this study were all street children of elementary school

and junior high school in Cahaya Bunda Jembatan Merah Community, Pabean Cantikan-Surabaya, which numbered 30 children, while the sample was all street children from elementary schools in Cahaya Bunda Jembatan Merah Cantikan-Surabaya, which numbered 30 children starting April 22 - May 27, 2018.

The procedure of this study uses an instrument that is the game of the Health-Trace Map and question questionnaire sheets made by the researchers themselves who have tested validation and reliability with Cronbach's Alpha = 0.759 with 13 questions that have been modified by researchers using the Likert Scale (Strongly Agree, Agree, Disagree, Strongly Disagree). There are 6 components of PHBS in schools that adjust to conditions in the field to measure motivation according to Herzberg's theory which consists of intrinsic and extrinsic factors. A sheet about their motivation for PHBS was filled with scores 1-4 on positive and negative statements through health education with the Health-Track Map game. The data includes the motivation of street children to PHBS in schools that are adapted to environmental conditions such as washing hands with clean water and soap, eating healthy snacks, using clean and healthy toilets, not inhaling, weighing and measuring altitude every 6 months, and discarding garbage in its place. There are also SOP, SAK and leaflets in this study.

**Results**

This research was conducted at the Cahaya Bunda Pabean Cantikan-Surabaya Community from April 22 to May 27, 2018. From the total population determined the same as the sample number because the total sampling did not have inclusion and exclusion criteria, namely as many as 30 street children. The following general and special data obtained from the results of the study :

**Table 1: Distribution of Respondents by Age in the Cahaya Bunda Pabean Cantikan-Surabaya Community in April-May 2018**

No.	Age (Years)	Frequency	Percentage (%)
1.	7 – 8	7	23,3
2.	9 – 10	15	50
3.	11 – 12	3	10
4.	13 –14	4	13,3
5.	15– 16	1	3,3
	<b>Total</b>	30	100

**Table 2: Distribution of Respondents in the Cahaya Bunda Pabean Cantikan-Surabaya Community in April-May 2018**

No.	Class	Frequency	Percentage (%)
1.	1- 2	7	23,3
2.	3 - 4	12	40
3.	5 - 6	6	20
4.	7 - 8	5	16,7
	<b>Total</b>	<b>30</b>	<b>100</b>

**Table 3: Distribution of Respondents based on Residence Status in the Cahaya Bunda Pabean Cantikan-Surabaya Community in April-May 2018**

No.	Status of Residence	Frequency	Percentage (%)
1.	With Parents	25	83,3
2.	With Friends	1	3,3
3.	With Relatives	2	6,7
4.	Alone	2	6,7
	<b>Total</b>	<b>30</b>	<b>100</b>

**Table 4: Distribution of Respondents by Gender in the Cahaya Bunda Pabean Cantikan-Surabaya Community in April-May 2018**

No.	Gender	Frequency	Percentage (%)
1.	Man	13	43,3
2.	Women	17	56,7
	<b>Total</b>	<b>30</b>	<b>100</b>

**Table 6: Distribution of Motivation on Clean and Healthy Behaviour (PHBS) Before and After Health Education Intervention with Media was given Game Health-Trace Map in the Cahaya Bunda Pabean Cantikan-Surabaya Community in April-May 2018**

PHBS toward Motivation	Pre Test		Post Test	
	Frequency	Percentage (%)	Frequency	Percentage (%)
High	2	6,7	25	83,3
Medium	10	33,3	3	10
Low	18	60	2	6,7
Total	30	100	30	100
$\rho = 0,000 < \alpha 0,05 Z = -4.594^a$ , Wilcoxon Sign Rank Test				

Based on table 7 above shows the results of research on respondents' motivation before and after being given Health Education intervention on PHBS with Health-Trace Map media from 30 respondents getting motivation towards PHBS, street children before being given low category motivation assistance, 18 children (60%) and eliminating the decline to 2 children (6.7%) after being given an intervention. Street children before being given intervention were in the medium category, 10 children (33.3%) and decreased changes to 3 children (10%) were given intervention. Street children before being given a high motivation category intervention of 2 children (6.7%) and an increase in increase to 25 children (83.3%) after being given an intervention.

## Discussion

### A. Motivation about Clean and Healthy Life Behaviour (PHBS) Before Health Education was given with the Media Game Health-Trace

**Map on Street Children:** Students who are often truant and have low learning motivation generally have parents with a level of poor and inconsistent involvement. The low level of involvement of parents can lead to not fulfilling the need for social support needed by children (vanBreda, 2015). With motivation to learn students will have energy that encourages consistency of learning. Students will also have clear learning goals and can choose activities that are not useful. These three functions simultaneously encourage student performance in learning and support achievement. The use of media is very appropriate to changing family behaviour for health attitude.<sup>9</sup>

Based on the results of the Health-Trace Map Health Education research on the factors that influence motivation in Street Children include (1) Family support, (2) Environmental conditions, (3) Interest, motivation, (4) The goal, (5) Hope,

someone wants to work hard if there is hope to be realized into reality.

**B. Motivation about Clean and Healthy Life Behaviour (PHBS) after being given Health Education with the Media Game Health-Trace Map on Street Children:**

The Health-Trace Map game has benefits that include : (1) providing knowledge and adding insight to children through the learning process of playing while learning about PHBS in schools, (2) stimulating the development of thinking power, creativity and language in order to be able to cultivate attitudes, mental, and good morals, (3) creating an attractive playing environment, providing security, and fun, (4) learning sportsmanship to recognize defeats and wins, (5) learning to work together and waiting for their turn, (6) honing social skills and closeness.

This is due to the implementation of a good Map Health-Trace game. Whereas in the Health-Trace Map game this is done 6 times in 1,5 months. To achieve success in conducting Health-Trace Map interventions by paying attention to several things, namely : (1) Each group consists of 3-5 children, because this game requires compactness to solve common problems, (2) Consists of various ages and mixed sexes in 1 group, in order to be able to discuss each other and resolve challenges that exist until the finish, (3) compactness and togetherness, to not fight each other and solve together.

Based on the results of research after being given Health Education with Media Games Health-Trace Map the desire for street children mostly increases because this game is a good medium to increase the motivation of street children because in this process street children can exchange ideas and practice to study fellow friends who become their problems so that street children expressed their desire to change to do Clean and Healthy Life Behaviour (PHBS) which at first they were lazy to do.

**C. Effect of Health Education on Motivation about Clean and Healthy Life Behaviour (PHBS) Before and After the Intervention with the Media Game Health-Trace Map on Street Children:**

The Health Education process increases understanding to achieve the desired goals, without high motivation it will enable a good Clean and Healthy Life (PHBS)

to arise. According to (Atikah & Eni, 2012) PHBS at school is a set of behaviours practiced by students, teachers, and the community in the school environment on the basis of awareness as a result of learning, so that they are able to prevent disease, improve their health, and play an active role in creating a healthy environment. Motivation is a person's desire from within a person so that the person carries out certain activities to achieve a goal, the motive cannot be observed, which can be observed is the activity or perhaps the reasons for the action.<sup>10</sup>

One of the benefits of learning media is to make children more attractive when receiving material so that it can foster learning motivation. The use of Health-Trace Map media used in the delivery of information will be more innovative, creative, effective, and interesting because there is interest from respondents towards the media used. The use of media that is different from usual which will arouse the interests or desires of respondents towards media and after that information will be easier to be absorbed, understood, and applied by children.<sup>11</sup>

The results of street children motivation on Clean and Healthy Life Behaviour (PHBS) before being given Health Education intervention with Media Health-Trace Map Games showed that most street children still have low and moderate motivation and high motivation in only a few children but, after being given Health intervention Education with Media Games Health-Trace Map motivation of street children about Clean and Healthy Life Behaviour (PHBS) there is an increase in motivation of street children, mostly high and moderate motivation and low motivation for only a few children.

**Conclusion**

Based on the results of the study, there is an influence between Health Education and Media Health-Trace Map Game on Motivation about Clean and Healthy Life Behaviour (PHBS) in Street Children in Cahaya Bunda Komunitas Jembatan Merah Pabean Cantikan-Surabaya.

**Ethical Clearance:** The ethical approval for this study was granted by the KEPK University of Muhammadiyah Surabaya in 2018.

**Source of Funding:** This study received funding support by the internal fund from the University of Muhamadiyah Surabaya.

**Conflict of Interest:** None

## REFERENCES

1. SEPTIONO I, Setyowati RN. MAKNA KOMUNITAS SAVE STREET CHILD SURABAYA BAGI ANAK JALANAN DI KOTA SURABAYA. Kaji Moral dan Kewarganegaraan [Internet]. 2015 [cited 2019 Jun 14];2(3):921–35. Available from: <https://jurnalmahasiswa.unesa.ac.id/index.php/jurnal-pendidikan-kewarganegaraan/article/view/11900>
2. Ladegaard MB, Stage V. [Hand-hygiene and sickness among small children attending day care centers. An intervention study]. Ugeskr Laeger [Internet]. 1999 Aug 2 [cited 2019 Jun 14];161(31):4396–400. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/10487104>
3. Vivas AP, Gelaye B, Aboset N, Kumie A, Berhane Y, Williams MA. Knowledge, attitudes and practices (KAP) of hygiene among school children in Angolela, Ethiopia. J Prev Med Hyg [Internet]. 2010 Jun [cited 2019 Jun 14];51(2):73–9. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/21155409>
4. Azizah F. MAKNA BERAGAMA BAGI ANAK JALANAN DI KOMUNITAS SAVE STREET CHILD SURABAYA [Internet]. [cited 2019 Jun 14]. Available from: [https://www.academia.edu/33445363/MAKNA\\_BERAGAMA\\_BAGI\\_ANAK\\_JALANAN\\_DI\\_KOMUNITAS\\_SAVE\\_STREET\\_CHILD\\_SURABAYA](https://www.academia.edu/33445363/MAKNA_BERAGAMA_BAGI_ANAK_JALANAN_DI_KOMUNITAS_SAVE_STREET_CHILD_SURABAYA)
5. Putra F, Hidayat EN. PEMBERDAYAAN ANAK JALANAN DI RUMAH SINGGAH. Pros Penelit dan Pengabdian Masyarakat [Internet]. 2016 Jan 1 [cited 2019 Jun 14];3(1). Available from: <http://jurnal.unpad.ac.id/prosiding/article/view/13633>
6. Mashitah MW, Ispriantari A. Pengaruh Metode Course Review Horay Terhadap Pengetahuan, Sikap Dan Praktik Perilaku Hidup Bersih Dan. J Kesehatan Hesti Wira Sakti. 2017;Volume 5,;1–6.
7. Azuma Y, et. al. 6. [Internet]. Vol. 5, Jurnal Kesehatan Hesti Wira Sakti. Akitashoten; 2018 [cited 2019 Jun 14]. 1–5 p. Available from: <https://jurnal.poltekkes-soepraen.ac.id/index.php/HWS/article/view/152>
8. Sutriyanto K, Raksanagara AS, Wijaya M. Pengaruh Permainan Kartu Kasugi terhadap Peningkatan Pengetahuan Perilaku Hidup Bersih dan Sehat pada Siswa The Influence of Game Card Kasugi Toward the Improvement of Knowledge of Healthy Living Behavior of Student. Jsk. 2016;1:193–200.
9. Meliwati, Agrina, Dewi AP. The effectiveness of health education using audiovisual media on increasing family behavior in preventing dengue hemorrhagic fever (DHF). Enferm Clin [Internet]. 2019;29(xx):30–3. Available from: <https://doi.org/10.1016/j.enfcli.2018.11.013>
10. Notoatmodjo S. Promosi kesehatan dan perilaku kesehatan [Internet]. Rineka Cipta; 2012 [cited 2019 Jun 14]. Available from: <http://onsearch.id/Record/IOS2726.slims-73970>
11. Collub EL, Leroy V, Gilbert R, Chêne G, Wallon M. Effectiveness of health education on Toxoplasma-related knowledge, behaviour, and risk of seroconversion in pregnancy. Eur J Obstet Gynecol Reprod Biol [Internet]. 2008 Feb 1 [cited 2019 Jun 14];136(2):137–45. Available from: <https://www.sciencedirect.com/science/article/pii/S0301211507004307>

# The Effect of the Health-Trace Map Game towards Motivation on a Clean and Healthy Life Style among Street Children in Surabaya

## ORIGINALITY REPORT

10%

SIMILARITY INDEX

9%

INTERNET SOURCES

6%

PUBLICATIONS

4%

STUDENT PAPERS

## PRIMARY SOURCES

1	<a href="https://repository.um-surabaya.ac.id">repository.um-surabaya.ac.id</a> Internet Source	2%
2	<a href="https://repository.unri.ac.id">repository.unri.ac.id</a> Internet Source	2%
3	Valentine Faure-Bardon, Yves Ville. "Maternal infections: revisiting the need for screening in pregnancy", BJOG: An International Journal of Obstetrics & Gynaecology, 2020 Publication	1%
4	<a href="https://repository.radenintan.ac.id">repository.radenintan.ac.id</a> Internet Source	1%
5	<a href="https://www.researchgate.net">www.researchgate.net</a> Internet Source	1%
6	Submitted to Universitas Hasanuddin Student Paper	1%
7	<a href="https://talenta.usu.ac.id">talenta.usu.ac.id</a> Internet Source	1%

8

[jurnal.iakmi.id](http://jurnal.iakmi.id)

Internet Source

1%

---

9

[www.mdpi.com](http://www.mdpi.com)

Internet Source

1%

---

10

[www.allresearchjournal.com](http://www.allresearchjournal.com)

Internet Source

1%

---

Exclude quotes      On

Exclude matches      Off

Exclude bibliography      On