



## Effectiveness of website-based community-based total sanitation (STBM) triggering on facilitators (Cadres) in minas district, Siak District health office working area 2023

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### Abstract

Community-Based Total Sanitation (STBM) is an approach to changing sanitation hygiene behavior through triggering activities and is also an implementation of the successful development of total sanitation by implementing the CLTS (Community-Led Total Sanitation) model. What is contained in the STBM program consists of the pillars of community-based Total Sanitation, hereinafter referred to as the STBM Pillars, namely hygiene and sanitary behavior which is used as a reference in implementing Community-Based Total Sanitation. STBM consists of five pillars, namely stop open defecation (BABS), hand washing with soap (CTPS), household drinking water and food management (PAMM-RT), household waste management (PSRT), and household waste water management. (PALRT). In the current digital era, the use of websites is considered the most effective in carrying out various activities because they can be accessed anywhere and at any time. For this reason, this research looks at the extent to which STBM triggering of website-based facilitators (cadres) can be successful as expected. The aim of this research is to determine the effectiveness of implementing website-based STBM triggering among facilitators (cadres) in the Siak Health Center working area, Siak Regency. The output of this research is the availability of an STBM triggering website which can be accessed by STBM facilitators in understanding and implementing STBM triggering so that it can be implemented effectively and efficiently

**Keywords:** STBM Triggering, Effectiveness, STBM Triggering of Website, Minas District

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### Introduction

Community-Based Total Sanitation (STBM) is an approach to changing sanitation hygiene behavior through triggering activities and is also an implementation of the successful development of total sanitation by implementing the CLTS (Community-Led Total Sanitation) model. What is contained in the STBM program consists of the pillars of community-based Total Sanitation, hereinafter referred to as the STBM Pillars, namely hygiene and sanitary behavior which is used as a reference in implementing Community-Based Total Sanitation. STBM consists of five pillars, namely stop open defecation (BABS), wash your hands with soap (CTPS), manage household drinking water and food (PAMM-RT), manage household waste (PSRT), and manage household wastewater. (PALRT). STBM has an outcome indicator, namely reducing the incidence of diarrhea and other environmental-based diseases related to sanitation and behavior.

According to Minister of Health Regulation No. 3 of 2014 concerning Implementation of Community-Based Total Sanitation (STBM) with 5 (five) pillars, it will make efforts to increase access to sanitation easier. a better society as well as changing and maintaining the sustainability of a clean and healthy living culture. Implementation of STBM in the long term can reduce morbidity and death rates caused by poor sanitation, and can encourage the realization of a healthy, independent and just society. STBM is implemented through community triggering and empowerment where people are aware, willing and able to implement total sanitation that arises from themselves, not through coercion. Through this method, it is hoped that changes in behavior will not occur during program implementation but will continue throughout the period (Permenkes, 2014).

In the current digital era, the use of websites is considered the most effective in carrying out various activities because they can be accessed anywhere and at any time. For this reason, this research looks at the extent to which STBM triggering of website-based facilitators (cadres) can be successful as expected.

The formulation of the problem in this research is whether website-based STBM triggering is effectively given to facilitators (cadres) in Minas District, Siak District Health Service Work Area in 2023.

The problem solving approach in this research uses the method of building an atmosphere and socializing about the STBM triggering website so that facilitators (cadres) are willing, able and skilled in carrying out website-based STBM triggering in Minas District, Siak District Health Service Working Area in 2023.

#### State of art research as follows

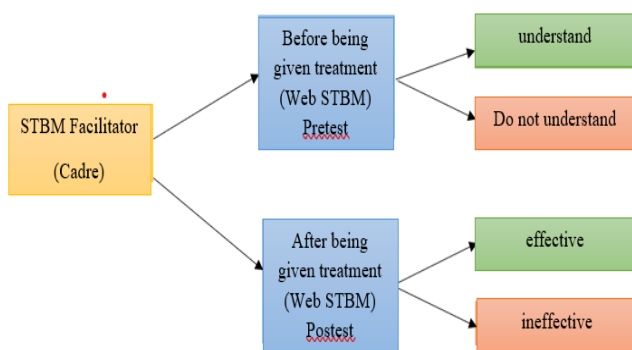


Fig 1: State of art

#### Related Literature

##### 1. Stop Defecation Pillar

Indicators that a village/kelurahan is said to have achieved SBS status are (1) All people defecate only in healthy latrines and dispose of baby feces/poo only into healthy latrines (including at schools), (2) There is no visible human feces in the surrounding environment. (3) There is the implementation of sanctions, regulations or other efforts in the community to prevent the occurrence of defecation in any place. There is a general monitoring mechanism created by the community to achieve 100% of families having healthy latrines, (4) There are clear strategic efforts to achieve total sanitation.

A healthy latrine has the following criteria (1) Does not pollute water (water bodies, ground water), (2) Does not pollute surface soil (infiltration water), (3) Free from insects, (4) Does not cause odors and is comfortable to use, (5) Safe for use by the wearer, (6) Easy to clean and does not cause disturbance to the wearer, (7) Does not cause rude glances.

##### 2. Pillar Washing Your Hands with Soap

Hand washing behavior using soap and running water at 5 critical times. The five critical times include before eating, after eating, after defecating or coming into contact with feces, after changing the baby's diaper, and before giving the baby food. The long-term goal of the second pillar is to contribute to reducing cases of diarrhea in children under five in Indonesia (Ministry of Health, 2008)

Based on research (Abdul, *et al.* 2016) regarding Community Behavior towards Community-Based Total Sanitation in

Majene Regency, it was found that there was a significant relationship between washing hands with soap and implementing STBM, marked with  $\alpha < 0.05$ .

##### 3. Pillars of Household Food and Beverage Management

A process of managing, storing and utilizing drinking water and water used for food production and other oral purposes, as well as safe food management in the household which includes 6 principles of Food Sanitation Hygiene in the form of selecting food ingredients, storing food ingredients, managing food ingredients, food storage, food transportation, food serving. The aim of the third pillar is to reduce the incidence of diseases transmitted through drinking water and food (Ministry of Health, 2008).

##### 4. Pillars of Household Waste Management

Safe waste management process at the household level by prioritizing the principles of reducing, reusing and recycling. This solid destruction and/or processing can be done in various ways, including (1) Landfill, namely destroying the waste by making a hole in the ground then putting the waste in and filling it with soil, (2) Burning (incineration), namely destroying the waste. by burning it in a burning furnace (incinerator), (3) Making it into fertilizer (composting), namely processing waste into fertilizer (compost), especially for organic waste, leaves, food waste and other waste that can rot. In rural areas this is normal, while in urban areas this needs to be cultivated. If every household makes it a habit to separate organic waste from inorganic waste, it can be processed into fertilizer for plants that can be sold or used for their own use. Meanwhile, inorganic waste is thrown away and will soon be picked up by scavengers. In this way, the waste problem will be reduced (Sastrawijaya, 2009).

##### 5. Pillars of Household Liquid Waste Management

Based on (Indonesian Ministry of Health, 2014) The principles of household liquid waste include (1) Not polluting drinking water sources (surface water or ground water), (2) Not becoming a breeding medium for disease-carrying animals, (3) Simple construction using materials which is cheap and easy to obtain, (4) Conservation of water sources (for example, reuse of household waste water).

Means for managing waste water are (1) Collected to water plants/distributed to water plants, (2) Source of absorption well (3) Trench/pair of PVC pipes, (4) Trenches are shallow excavations, can be plastered with cement to make them more durable. To channel waste water from the source to the absorption well, (5) Control tank to avoid blockages in the waste water flow pipe from the absorption well source due to solid objects contained in the waste water.

Maintaining waste water management facilities by (1) Do not throw rubbish into the drains (trenches), (2) Clean the drains from rubbish regularly twice a week, (3) Clean the drains from moss regularly at least once a week, (4) If any Damaged parts are immediately repaired/replaced.

#### Method

This research uses a type of survey research (mixed quantitative-qualitative) which aims to obtain in-depth information about educational trends towards effective website-based STBM triggering given to facilitators (cadres) in Minas District, Siak District Health Service Working Area in 2023.

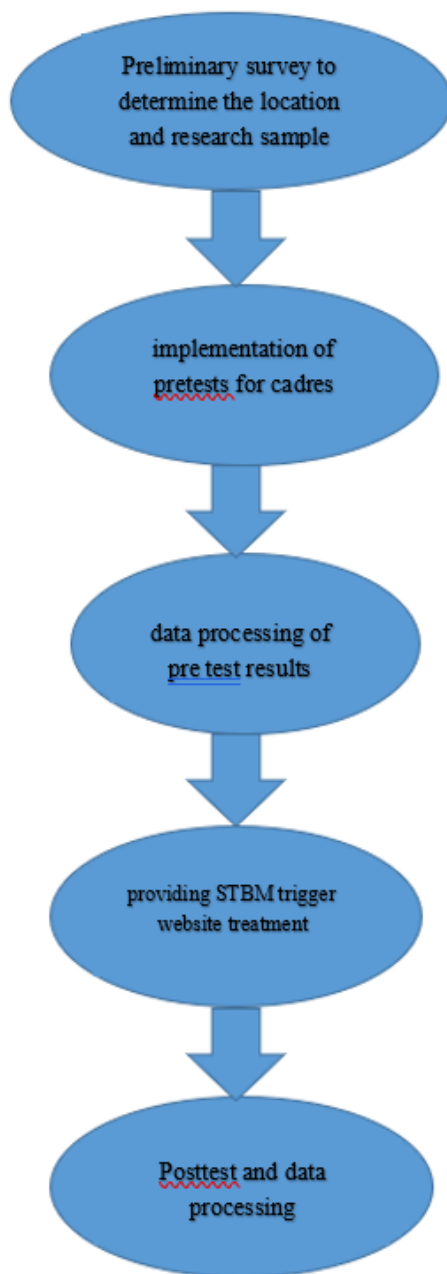


Fig 2: Research Flow

**1. Data Collection**

**a. Data collection preparation stage**

Before information was collected, the researcher's first step was to obtain a research permit from the Postgraduate Study Program at Hang Tuah University, Pekanbaru. The second step, approach the community and local health centers, to get an overview of the target group's environment, the condition of the target group and the social habits of the target group. The third step, approach the target group. To establish a good relationship with the research target requires quite a long time and also costs extra for drinking and eating.

**b. Data Collection Implementation Stage**

This data collection was carried out in stages, namely first, a trial of the in-depth interview guide was carried out, then the results of the trial were used to improve the language, level of informant's understanding of questions, deepening, probing into question issues and improving the flow of question topics. Second, do: In-depth interviews were

conducted between informants and skilled interviewers, which were characterized by in-depth digging and using open questions (Kresno *et al*). In this research, in-depth interviews were conducted with the main informants and supporting informants using an interview guide.

**c. Observation**

Observations or observations are carried out to optimize the researcher's abilities in terms of motives, beliefs, attention, unconscious behavior and habits (Moleong, 2008). In this study, what the researchers observed was that effective website-based STBM triggering was given to facilitators (cadres) in Minas District, Siak District Health Service Working Area in 2023.

**2. Research Instruments**

The instruments in this research were themselves and assisted by: (a) Interview guide, (b) Note taking equipment and (c) Recording equipment in the form of a tape recorder.

**3. Data Analysis**

Analysis of questionnaire data includes analysis of the results of questionnaire I (validation sheet by design experts, STBM program holders and health promotion workers), as well as questionnaire II (community response sheet). The following is the technical data analysis for each questionnaire:

a. Questionnaire I, module validation sheet by design experts, STBM program holders and health promotion workers.

Questionnaire I for design experts, STBM program holders and health promotion personnel is given at the validation stage, then the data from the questionnaire results will be analyzed descriptively quantitatively, namely by using percentages in the form of images and exposure to learning media in the form of websites developed. The percentage of questionnaire data is obtained based on the overall score calculation. The score provisions used as an assessment scale can be seen in Table below:

b. Questionnaire I, module validation sheet by design experts, STBM program holders and health promotion workers.

Questionnaire I for design experts, STBM program holders and health promotion personnel is given at the validation stage, then the data from the questionnaire results will be analyzed descriptively quantitatively, namely by using percentages in the form of images and exposure to learning media in the form of websites developed. The percentage of questionnaire data is obtained based on the overall score calculation. The score provisions used as an assessment scale can be seen in Table below:

**Table 1:** Validation Score Conditions

Criteria	Value/Score
Very not good	1
Not good	2
Pretty good	3
Good	4
Very good	5

Source: Laksono, 2005

To calculate the feasibility percentage of each indicator, the calculation formula used is as follows:

$$K = \frac{F}{N \times I \times R} \times 100 \%$$

Information:

K = Percentage of eligibility criteria

F = The total number of respondents' answers

N = Highest score in the questionnaire

I = Number of questions in the questionnaire

R = Number of appraisers

(Riduwan, 2009).

**Conclusion**

**Table 2**

Aspect	% Score
Illustration	83.32 %
Format	74.64 %
Appearance or website	73.43%
Average Percentage	77.13% (Good)

Website validation results by design experts

**Table 3**

Aspect	% Score
Illustration	76.06 %
Format	78.65 %
Appearance or website	86.67 %
Average Percentage	(very good)

Results of module validation by STBM program holders

No	Rated aspect	Score Validation			Total Score	% Score	Average %	criteria
		1	2	3				
1.	Use of easy-to-understand language for implementing STBM	4	4	4	12	80		
2.	Sentence structure is in accordance with language rules and vocabulary so it is interesting to understand	5	4	4	13	86.67	82.2 %	Very good
3.	Instructions and commands for implementing STBM in the module are easy to understand	4	4	4	12	80		
Total Website Validation Percentage							82.2%	(Very good)

**Fig 3**

**Effectiveness of Education for the Community**

The effectiveness of STBM education using the website will be analyzed descriptively quantitatively and the data will be obtained during education using the website and during education without using the website.

This comparison was carried out by comparing the test group that used the website, with the group that did not use the

website. The following is a table of values from group K2 and group K3.

This is in line with the results of Susanto's (2008) research where there is a significant relationship between the use of website media and educational success, indicated by alpha < 0.05.

Type	Average Pretest Score	Average Posttest Score
Using the Website (K2)	56.25%	84.1%
Without Using a Website (K3)	36.4 %	56 %

Fig 4

From the table above, pretest and posttest scores were obtained from the community. It is known that people who used the website (K2 group) were declared successful at 84.1% in the posttest, while in the pretest only 56.25% were successful. Meanwhile, in the K3 group in the pretest it was only 36.4%. Meanwhile, during the post test, the K3 group obtained a percentage of 56%.

If we look at the increase in scores between the pretest and posttest groups that used the website and those without the website, the group that used the website got a score increase of 26.6. The group that did not use the website received an increase in score of 14.63. This shows the effectiveness of using websites with conventional learning. Those who use the website have more satisfying results because in education, people can learn more about the application of the 5 pillars on the website if in the education process the public does not understand. Education using websites causes people to be more active in their learning process, because on the website they face problems or activities that must be completed. Meanwhile, without using a website, people only rely on the knowledge provided. It can be concluded that learning using a website is more effective than without using a website.

The achievement of the feasibility of the website that has been completed is validated by 3 validators. Based on the validation results, it is known that the website developed is very suitable for use as a learning medium. When carrying out validation, there are several aspects that are taken into consideration. These aspects include characteristics, content, language, illustrations, format, appearance or cover, and website etiquette.

The validation results on the website characteristic aspects show an average percentage of 76.06%. This shows that people will easily understand when studying websites because the language used in writing websites is easy to understand and websites can be used without relying on and without using other sources because the material on the website is adequate. The lowest score is found on websites with adaptive characteristics at 67%. Due to limited literature and researchers' knowledge, according to the validators, the material on this website has not been adapted to developments in science and technology. so it needs to be adapted to developments in science and technology. Other website characteristics received even scores. These traits or characteristics are very important to apply to websites because with these traits the public and stakeholders can use the website well.

In the content aspect, the average percentage of website validation results is 78.65%. The lowest assessment was 73.3% and the website material included aspects of knowledge and memory. So that the website being developed can be taught well by STBM program stakeholders in the education process, the website must be adapted to more

creative STBM material and developments in science and technology.

This website must be free from SARA issues so that it does not cause division and can be accepted by the public. The lowest score, namely 73.3%, lies in other assessment points. This is due to the limited literature that the author has regarding the material on the website. So the illustrations in the module must be attractive and clear so as not to make things difficult for participants.

The validation results on the website format aspect show an average score of 74.64%. The highest rating of 80% lies in the clear numbering points on the website. The numbering on the website is clear and orderly so that readers do not get confused when learning. This is important to generate interest. If the website doesn't look confusing, people will be more enthusiastic about studying the website. The assessment of the points contained in this aspect has an even assessment. The average percentage of 73.43% lies in the appearance or cover aspect. In this aspect, there are three points that get an even score and the highest is 80%. The selection and arrangement of words and images makes the cover of this website more attractive. The website cover is designed in such a way as to create interest and desire to read.

The average percentage is 86.67% in the etiquette aspect. All points contained in this aspect received an even assessment from the validator. Etiquette is a very important thing to implement on a website. The content, language, illustrations and other components of the website must also not conflict with Pancasila and the 1945 Constitution, and must not endanger national security, unity and stability. Apart from that, the website components developed must avoid things that could cause SARA problems, and must avoid the impression of pornography.

In general, the validation results obtained a total average score of 79.93%. These results show that the website developed is in the very feasible category, this category is shown by the validation results which reach the interpretation criteria  $\geq 70\%$  in accordance with the provisions.

## Conclusion

Based on the research results, it shows that the 5 pillars of the STBM program in each sub-district as a whole have not been implemented well, so they are still far from achieving the national target. This can be influenced by community behavioral factors and can also be caused by the related sectors not being optimal in implementing this STBM program.

In this research, the website produced goes through stages in a flow, where starting from identifying the problem then identifying characteristics, so that objectives can be formulated and a theory about STBM can be developed, from this series it can be designed starting from the principles, objectives of STBM and accompanied by attractive images. and instructions for implementing STBM. After the website has been designed, an expert test is carried out involving design experts, STBM program holders and health promotion experts. This activity is preceded by an FGD (Focus Group Discussion), then validation is carried out from each of these experts, the website also goes through several revisions. , then the effectiveness test is carried out on the community and validation is also carried out.

In general, the website validation results obtained a total average score of 79.93%. These results show that the website developed is in the very feasible category, this category is

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