

# Students, Teachers, and Parents: Urgency Implementation of Water Activity in Physical Education

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**Abstract**—Indonesia as a country has most of its territory covered with water. This places the country at a high risk of getting involved in water accidents. Drowning is one of the most dangerous water accident and it can easily lead to death. This research aims to provide relevant information about water safety and its importance when implemented in schools. This is a survey research. The Surveys were conducted online using a closed questionnaire on the <https://docs.google.com/forms> domain. The question was given to the students, "Is it important to learn water safety?" This study involved 3 subjects that are students, teachers PE, and parents. The samples used were 175 respondents which include 99 students, 45 teachers, and 31 parents. The survey results show 89% from 175 respondents chose yes, 2,1% from 175 respondents chose no, and 8,7% from 175 respondents chose possibly. The results of this study indicate that students, teachers, and parents agreed education on water activity needs to be implemented in the Schools. Water safety must be implemented in school as it serves as a means to prevent drowning. The results of this survey can be used as preliminary data to conduct further research.

**Keywords**—water activity, physical education, water accident education.

## I. INTRODUCTION

Indonesia is a large country that is careless about the subject of water safety. When viewed geographically, Indonesia is the largest archipelagic country in the world with a total of 17,504 islands. The total area of Indonesia is 5.2 million km<sup>2</sup>, consisting of 1.9 million km<sup>2</sup> of land and 3.3 million km of ocean. The data above shows that a larger part of the country is covered with ocean. Indonesia's geographical location is between 6 north latitudes -11 south latitude and 95° east longitude-141° east longitude. If stretched, the Indonesian territory is 3,977 miles between the Indian Ocean and the Pacific Ocean. In Indonesia, there are 3 volcanic systems, namely the Mediterranean Circum, the Pacific Circum, and the Australian Circumference Circum. Indonesia is one of the countries that have an enormous natural disaster occurrence potential because of its geographical features. Hence it is prone to natural disasters such as earthquakes, volcanic eruptions, floods, landslides, and tsunamis. The data above shows that Indonesia is a water-dominant region and very vulnerable to disasters, this

is the major reason Indonesia is included in one of the countries with high risk getting involved in water accidents.

Until now there has been no preventive measure from either the government or the affected communities in combating the various water problems in the country. The drowning incidents of children under the age of 5 primarily occurs in private pools in private communities. Therefore, it has been shown that the rate of death caused by drowning can be reduced by 95% by simply fencing water bodies that are currently used for community ponds.

In the case of older children, drowning usually occurs in lakes, seas, rivers, and canals, where special aquatic activities are practiced. At this age, alcohol consumption and drugs plus the risk of impulsive adolescence are the major causative factors. As many as 25% of deaths caused by drowning are associated with alcohol consumption. The three main categories of causes of drowning in the pool can be distinguished as follow: the inability to swim, risk behavior and medical causes [2].

Data shown by WHO in 2014 are taken on analysis of several countries, unfortunately, no data was taken from Indonesia. In the WHO global report of the drowning, the fact is that 37,200 people die from drowning each year, most of the recorded cases were people under the age of 25. It was shown that men have the chance of drowning 2 times greater than women. Drowning is the cause of one in ten death occurrence of people within the age range of 1-24 years. Below are some of the factors that cause drowning according to sinking data collated in Bangladeshi for children under 5 years. 1) living around water. Where there is water, there is a high chance of drowning, data on the risk of drowning is found from 26% of trenches, 43% of ponds, 13% of reservoirs, 7% lakes, 5% rivers, and 6% others. 2) small children within the age range of 1-4 years are the victims of the highest level of drowning. 3) flood disasters such as heavy rains, tsunamis or cyclones. 3) water transportation especially on crowded and poorly maintained vessels. Some of the ways to prevent drowning include 1) Building a fence to control access to water use, 2) providing a safe place, for example, to place children away from water at pre-school age, we must care about child safety, 3) Teaching children in schools about basic swimming, water safety, and safe rescue

skills, 4) Physical education on safe rescue and resuscitation, 5) regulating and enforcing safe shipping regulations, 6) improving flood risk management locally and nationally.

Based on observations in the field, swimming activities in elementary schools are rarely implemented. Education takes the role of delivering information on skills. Knowledge of water activity material is very necessary. Water activity is one of the teaching materials in sports and health physical education subjects.

However, in the 2013 curriculum, this material is still included in flexible material but it has to be included as compulsory material so that it will not be neglected. Water activity is one of the materials in the Physical Education. Education in addition to producing intelligent and independent graduates also need to provide the provision of informing and providing the necessary skills to maintain safety in the water. One of the safety education that can be delivered through physical education is to provide material on the safety of the water. But unfortunately, water activity is a physical education material that is not mandatory. This research was conducted to know the benefits of water safety implementation in schools. With all the limitations of school facilities, and considering the notion that this material is not required to be given in the School, it is most likely that this material is not implemented in our schools.

#### A. Curriculum 2013

Permendikbud No. 20 in 2016 about Graduates Competency Standards Each graduate of primary and secondary education units has competence in three dimensions, namely attitudes, knowledge, and skills. Elementary graduates have competencies in attitude dimensions as follows.

##### 1. Attitude

Having a behavior that reflects attitudes: 1. believe and fear God, 2. character, honesty, and care 3. A sense of responsibility, 4. True learners throughout life, and 5. Physically and mentally healthy in accordance with the development of children in the family environment, school, community, and the surrounding natural environment, state and nation at large.

##### 2. Knowledge

Having factual, conceptual, procedural, and metacognitive knowledge at the basic level with regard to 1. Science, 2. Technology, 3. Art, and 4. Culture. Able to link the above knowledge in the context of self, family, school, community and the surrounding natural environment, state, and country.

- a. Factual Basic knowledge regarding science, technology, art, and culture related to oneself, family, school, community and the surrounding natural environment, nation and state.
- b. Conceptual Terminology/terms used, classifications, categories, principles, and generalizations regarding science, technology, art and culture related to oneself, family, school, community and the surrounding natural environment, nation and state.

- c. Knowledge of how to perform activities related to science, technology, art, and culture related to oneself, family, school, community and the surrounding natural environment, nation and state.
- d. Metacognitive Knowledge of your own strengths and weaknesses and use them in studying science, technology, art and culture related to yourself, family, school, community and the surrounding natural environment, nation and state.

##### 3. Skills

Having thinking and acting skills: (1) creative, (2) productive, (3) critical, (4) independent, (5) collaborative, and (6) Communicative. Through a scientific approach in accordance with the stage of child development that is relevant to the task assigned Permendikbud No 21 In 2016 about Content Standards.

To meet the future needs and meet the needs of Indonesian Golden Generation in 2045, the Graduates Competency Standards have been established based on XXI Century Competencies, Indonesia's Demographic Bonuses, and Indonesia's Potential to become the 7th Largest World Economic Group, and at the same time strengthen Indonesia's contribution to the development of world civilization. The scope of the material and the level of competency of students that must be met or achieved in an education unit in a certain level and type of education are formulated in the Content Standards for each subject.

The Content Standard is adjusted to the substance of national education goals in the domain of spiritual attitudes and social attitudes, knowledge, and skills. Therefore, the Content Standard was developed to determine the criteria for the scope and level of competence that are in accordance with the graduates' competencies formulated in the Graduates Competency Standards, namely attitudes, knowledge, and skills. The characteristics, suitability, adequacy, breadth, and depth of the material are determined in accordance with the competency characteristics and the process of acquiring these competencies. These three competencies have different acquisition processes.

Attitude is formed through activities: accepting, carrying out, appreciating, living, and practicing. Knowledge is owned through activity: knowing, understanding, implementing, analyzing, evaluating, and creating. Skills are acquired through activities: observing, asking, trying, reasoning, presenting, and creating. Competency characteristics and differences in the acquisition process affect the Content Standards.

Competency level is a generic competency achievement criterion that must be fulfilled by students at every level of education in order to achieve Graduates Competency Standards. Competency levels are developed based on the following criteria; (1) The level of development of students, (2) Indonesian competency qualifications, (3) Gradual mastery of competencies. In addition, the Competency Level also pays attention to the complexity of competencies, the function of education units, and the integration between relevant levels. To ensure continuity between levels, the

level of competency starts from the level of early childhood education competence.

Generic competencies include 3 (three) domains, namely attitudes, knowledge, and skills. The realm of attitude is divided into spiritual attitudes and social attitudes. This sorting is needed to emphasize the importance of the balance of functions as a whole human being which includes the spiritual and social aspects as mandated in the goals of national education. Thus, generic competencies consist of 4 (four) dimensions that represent spiritual attitudes, social attitudes, knowledge, and skills hereinafter referred to as Core Competencies (KI). The revision of Core Competencies for Class I-IV.

TABLE I. LEVELS IS PRESENTED IN THE FOLLOWING TABLE.

CORE COMPETENCE	DESCRIPTION OF COMPETENCE
Spiritual attitude	1. Receiving, carrying out, and appreciating the teachings of the religion he adheres to.
Social Attitude	2. Indicates behavior: a. honesty, b. discipline, c. polite, d. confidence, e. care, and f. responsible for interacting with family, friends, and the State.
Knowledge	3. Understanding factual, conceptual, procedural, and metacognitive knowledge at the basic level by: a. observe, b. ask, and c. try, based on curiosity about himself, God's creatures and activities, and the objects he encounters at home, at school, and where to play.
Skills	4. Demonstrate thinking and acting skills: a. creative b. productive, c. critical, d. independent, e. collaborative, and f. communicative, in clear, systematic, logical and critical language, in aesthetic work, in movements that reflect healthy children, and actions that reflect the child's behavior in accordance with the stages of development.

The contents of Physical Education, Sports and Health in elementary schools about water activity are as follows;

TABLE II. BASIC EDUCATION WITH SCOPE OF MATERIAL

Basic Education Level (Class I-VI)	Scope of Material
Knowledge Competence: <ul style="list-style-type: none"> <li>Knowing and practicing basic motion recognition in water and basic motions for safety in water activities.</li> </ul>	Physical activity through games <ul style="list-style-type: none"> <li>Physical activity of water through games in water and safety in water.</li> </ul>
Skill competence: <ul style="list-style-type: none"> <li>Understand the concept and practice the skills of one swimming style and the basics of safety in water</li> </ul>	Physical activity through: <ul style="list-style-type: none"> <li>Physical activity through basic hand movements, legs and coordination of breaststroke/free style swimming movements.</li> </ul>

### **Permendikbud No 24 In 2016 Concerning Core Competency and Basic Competence of Lessons in 2013 Curriculum on basic Education and Medium Education**

Article 2 (1) the core competencies in the 2013 curriculum are the level of ability to achieve graduate competency standards that must be possessed by students at each grade level. (2) Basic competence is the ability and minimal learning material that must be achieved by students for a subject in each educational unit that refers to core competencies. (3) Core competencies as referred to in paragraph (1) consist of: a. the core competence of spiritual attitudes; b. core competencies of social attitudes; c. the core competency of knowledge; and D. core competency skills. (4) Basic competencies in the 2013 curriculum contain the abilities and learning materials for a subject in each educational unit that refers to core competencies. (5) Core competencies and basic competencies are used as a basis for changes to textbooks in primary and secondary education.

### **Attachment 21. Core Competency and Basic Competency of Physical Education, Sports and Health in elementary schools.**

The curriculum objectives include four competencies, namely (1) spiritual attitude competencies, (2) social attitudes, (3) knowledge, and (4) skills. This competence is achieved through extracurricular, co-curricular and/or extracurricular learning. Spiritual Attitude Competency Formulation is, "Appreciating the teachings of the religion he adheres to". The formulation of Social Attitude Competence is, "Shows honest, disciplined, responsible, polite, caring and confident behavior in interacting with family, friends, and teachers". Both of these competencies are achieved through indirect teaching, namely exemplary, habitual, and school culture with regard to the characteristics of subjects, as well as the needs and conditions of students. The growth and development of attitude competencies are carried out throughout the learning process and can be used as a teacher's consideration in developing students' character further. Knowledge and Competence Competency Skills about water safety are formulated as follows.

**TABLE III. CORE COMPETENCY CLASS**

CORE COMPETENCY 3 (KNOWLEDGE)	CORE COMPETENCY 4 (SKILLS)
3. Understanding factual knowledge by observing [hearing, seeing, reading] and asking based on curiosity about himself, God's creatures and activities, and objects he encounters at home and at school	4. Presenting factual knowledge in clear and logical language, in aesthetic work, in movements that reflect healthy children, and in actions that reflect the child's faithful and noble behavior
<b>CLASS I</b>	
3.7 Understanding various introductions of water activities and maintaining personal safety / others in water activities ***	4.7 Practicing various introduction to water activities and maintaining personal safety / others in water activities ***
<b>CLASS II</b>	
3.7 Understand procedures for using locomotor, non-locomotor, and manipulative basic movements in the form of games, and safeguarding the safety of yourself / others in water activities ***	4.7 Practicing the use of locomotor, non-locomotor, and manipulative basic movements in the form of games, and maintaining personal safety / others in water activities ***
<b>CLASS III</b>	
3.7 Understand the procedure of basic motion of float (water trappen) and glide in the water and maintain the safety of yourself / others in water activities ***	4.7 Practicing the basic motion of floating (water trappen) and gliding in the water and maintaining the safety of yourself / others in water activities ***

Information:

\*\*\*) Learning water activities can be carried out according to conditions if it cannot be implemented. it is replaced by other physical activities contained in the scope of the material.

### **B. Drowning**

Drowning is death caused by suffocation (lack of breath) when fluid blocks the body's ability to absorb oxygen from the air to cause asphyxia. The main causes of death are hypoxia and acidosis resulting in cardiac arrest. Sinking is a process that results in primary respiratory disorders from immersion in a liquid medium. The victim can live or die after this process, but whatever the result, he is involved in the sinking incident. The terms are strongly related to the word drown, wet and dry sinks and secondary sinking are potentially confusing and this term is no longer recommended [3]

In 2002 sink was redefined as "the process of experiencing respiratory problems from immersion in fluids", with three possible outcomes: death, survival with morbidity and survival without morbidity. This redefinition was adopted by WHO in 2005. The broader scope of sinking brought about by new definitions, and the fact that these models have been developed for other types of trauma, means that they can no longer be considered efficient for systematic interpretation from the sinking process [14]. Injury prevention models such as the Haddon Matrix have been used in the context of drowning, in an effort to overcome the problems mentioned above. Nearly drowning is a condition of survival from drowning to cause unconsciousness or lungs filled with water which can lead to serious secondary complications, including death after the

incident. Almost drowning cases are generally handled by medical professionals. Secondary sinking (secondary drowning) is death due to chemical and biological changes in the lungs after the incident almost drowned.

The World Health Organization (WHO) estimates the incidence of worldwide deaths worldwide by sinking to around 400,000 In the United States (US), there are 1,4073 deaths from drowning in 2000, representing 1.48 deaths per 100,000 populations. Drowning deaths are more common in young children, with 27% of deaths from accidental injuries in the US due to drowning at 1-4 years of age. Men are more often involved than women [13]. In many countries, drowning is one of the causes of death for children under 14 years. In the United States, drowning is the number two cause of death among children aged 14 years and under (number one cause of death is motor vehicle accidents). Sinking or almost drowning can occur in any puddle that can cause the child's mouth and nose to be submerged in water, including in a puddle, toilet, bathtub, aquarium, or large bucket.

The sinking of leaks in children under 5 occurs mainly in homes or private communities, where it is possible to use up to 95% with fencing as is currently the case for the community. In the case of older children, it usually occurs in lakes, seas, rivers, and canals, special places are practiced. At this time, consumption of alcohol and drugs plus the amount of impulsive adolescence. 25% of deaths from alcohol consumption Three main categories can be distinguished: the inability to swim, take advantage and medical causes [2].

### **C. Watersafe**

Education is directed towards household health in preventing death and can be a preventative effort in the community (Richards, 2011). Parents who live close to freshwater sources with boys under the age of 18 must be more aware of the risk of drowning because of their higher mortality due to drowning (Turgut & Turgut, 2012).

Drowning prevention must be given to the family as a source. Dependence on primary care providers for prevention of problems drowning in education; many patients and families do not regularly visit their primary health care workers, especially when children reach school age. In addition, many primary health care providers have not been trained in injury prevention, and an increasing number of injury prevention problems compete for the limited time of practitioners [11]. Ultimately, the first step towards preventing drowning is to bring this silent killer out of the shadows. This problem is too urgent to be ignored again [16].

The following are competency skills for water safety according to WHO, the skills/competencies taught are: 3 breathing skills: (1) put the face in the water, (2) soak and blow bubbles, (3) hold your breath and exhale in a submerged position. 10 swimming skills: (1) walking in water, (2) walking by pulling arms, (3) floating in water with support, (4) floating in water without assistance, (5) kicking with support, (6)) pushing and slide without assistance, (7) push and slide with a kick, (8) kick and pull with instructor support or kickboard, (9) kick, pull arm and breathe, (10) push, slide, kick and arm pull. 2 survival competencies: (1)



swimming 25 meters using recognizable strokes, (3) floating for 30 seconds. 3 basic rescue techniques: (1) saved by a pole, (2) rescuing others using poles and ropes from the edge of the pool, (3) saving others by throwing floating objects. Older children also learn safer "water rescue", because detailed research shows that most rescue occurs when children (drowning children and their fellow rescuers) are already in the water [4].

#### D. Question of Research

The explanation about the material of water activity in the 2013 curriculum shows that the material is not mandatory to be taught in schools. Learning water activities can be carried out according to conditions if it cannot be implemented it has always been replaced by other physical activities contained in the scope of the material. This is of course very contrary to the needs of the community regarding water safety when viewed from the Indonesian territory which is the dominant area of water. Therefore, it is important to know how teachers, parents, and students think about the importance of implementing this material. This question therefore arises. how is the perception of parents, teachers, and students about the implementation of water activity material? Is this material important to teach at school?

## II. METHOD

Participants were 99 alumni of school students who had received PJOK lessons, 45 physical education teachers who were active teachers in the School, and 31 parents/guardians of students in Ogan Komering Ulu and South Sumatra. All participants completed the survey about the importance of implementing water safety materials. The Instrument used was from closed questions collected online using Google doc. The question given to participants was "is water safety material relevant to be taught in the School?" The questions given were accompanied by 3 choices of answers to Yes, No, and Possible.

## III. RESULT

Respondent results are as follows;

#### a) Students

The number of respondents who filled this instrument was 99 people. Participants who were chosen to respond were participants who had attended school or students who were attending school who had received Physical, Sports and Health Education subjects.



Fig 1. Student responses

The above response shows that 91% of students chose Yes, and 8.1% chose Maybe, while 0% of students chose No. Based on this, it can be concluded that the majority of students stated that carrying water activities was important to be carried out at school.

#### b) Teacher

The number of teacher respondents in this study was 45 who actively taught in the School.

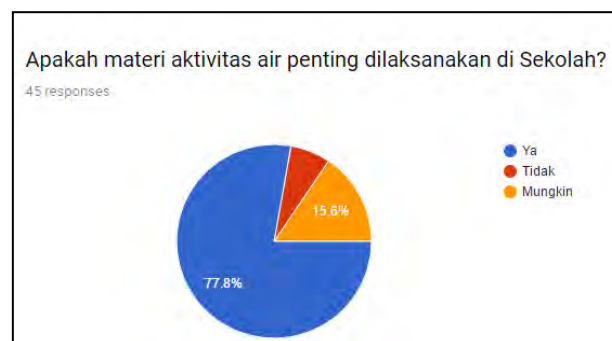


Fig 2. Teacher's response

The above responses show that 77% of teachers chose Yes, 15.6% chose no and 8.1% chose, and 6.7% chose Maybe. Based on this, it can be concluded that most teachers agreed that the water activity material was important to be implemented in school.

#### c) Parents

The number of parents' respondents in this study were 31 people with criteria for having children who were students.



Fig 3. Response of Parents

The above response shows that 93.5% of parents choose Yes, while for No and Probably the same number is 3.2%. Based on this, it can be concluded that most parents agreed that the water activity material is important to be carried out in school.

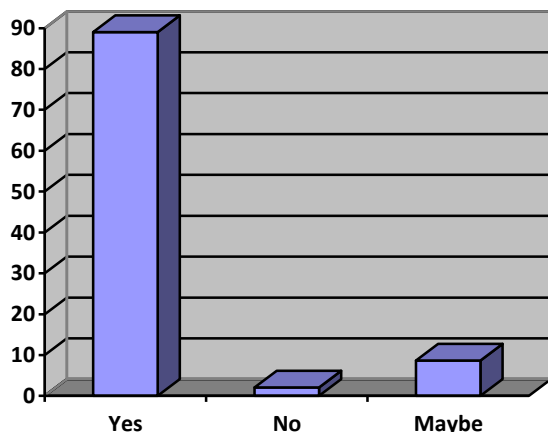


Fig. 4. Survey Analysis

The survey results show 89% from 175 respondents choose yes, 2,1% from 175 respondents choose no, and 8,7% from 175 respondents choose possibly. The results of this study indicate that students, teachers, and parents agreed that the material of water safety activity is important to be implemented in the School.

#### IV. CONCLUSION

Water safety must be implemented in schools as an alternative to prevent drowning. The results of this survey can be used as preliminary data to conduct further research..

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