

**ISOLATION AND IDENTIFICATION OF BACTERIA  
ISOLATED FROM CHILD-HAND WASHING  
BY WATER AND ANTI-MICROBIAL SOAP**

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**Final Year Project Report Submitted in  
Partial Fulfillment of the Requirements for the  
Degree of Bachelor of Science (Hons.) Biology  
in the Faculty of Applied Science  
Universiti Teknologi MARA**

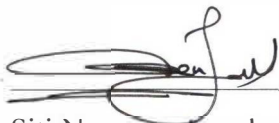
**JULY 2019**

This Final Year Project Report entitled **“Isolation and Identification of Bacteria Isolated from Child-hand washing by Water and Anti-microbial Soap** “was submitted by Nur Munirah binti Mazilan, in partial fulfillment of the requirements for the Degree of Bachelor of Science (Hons.) Biology, in the Faculty of Applied Science, and was approved by



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## **ABSTRACT**

### **ISOLATION AND IDENTIFICATION OF BACTERIA ISOLATED FROM CHILD-HAND WASHING BY WATER AND ANTI-MICROBIAL SOAP**

Hand hygiene is the primary measure to reduce infections. Child care center has been recognized as a risk factor for acquiring gastrointestinal and respiratory infections which can be prevented with adequate hand hygiene. The aim of this study to isolate bacteria and identify bacteria on the different techniques of hand washing which are no hand washing, hand washing with water and hand washing with antimicrobial soap. Since children are easily infected with infectious disease, thus hand contamination might be one of the vector that cause the transmission of the bacteria. Therefore, in order to identify the bacteria on child hand, the bacteria sample were isolated from the dominant hand of children in child care centre in Kuala Pilah. Then, bacteria sample were isolated in the three different agar medium which are nutrient agar, eosin methylene blue agar and bile aesculin agar and undergo gram staining and biochemical test which are IMViC test. The result obtained from this study are the morphology of bacteria and the present of two different type of bacteria which are gram-positive bacteria and gram negative bacteria. Besides, in this study it showed that there is low significant different of colony-forming unit (CFU) of these three different techniques of hand washing. In conclusion, isolation of bacteria from hand of children in child care centre in Kuala Pilah are successfully isolated. However, future researcher can improve this study through use the micro drop method for CFU count, gene sequencing in order to identify the isolated bacteria and observing various child care centre either private nor government care centre.