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UTILIZATION OF OYSTER AND CLAM SHELLS  
IN THE MANUFACTURE OF FLOWER VASE

RESEARCH STUDY

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**UTILIZATION OF OYSTER AND CLAM SHELLS  
IN THE MANUFACTURE OF FLOWER VASE**

**A Research Study  
Presented to the Faculty of Laboratory School,  
College of Education, Cavite State University  
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**In partial fulfillment  
of the requirements for graduation**

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*Utilization of oyster and clam shells in  
the manufacture of flower vase  
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## ABSTRACT

**BUCLATIN, ANGELI A.; JECIEL, DAVE BENEDICT M.; and MARASIGAN, MARISSA F.,** Applied Research III (General Science Curriculum), Cavite State University, Indang, Cavite, April 2004, **“UTILIZATION OF OYSTER AND CLAM SHELLS IN THE MANUFACTURE OF FLOWER VASE.”**

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**Prof. Dulce L. Ramos**

The study entitled “Utilization of Clam and Oyster Shells in the Manufacture of Flower Vase” was conducted to utilize clam and oyster shells in the manufacture of flower vase. It also aimed to (a) determine which material (oyster or clam or oyster and clam shells) can be used in making flower vases; (b) determine the acceptability of the produced flower vases in terms of physical appearance and breaking strength; and (d) determine the cost of production of flower vases made from oyster and clam shells. The study was conducted at Cavite State University and MSD-ITDI, Department of Science and Technology, Bicutan, Taguig, M.M. from December 2003 to January 2004.

The treatments used in the study were: Treatment 0 40% Red Clay, 10% Chinese Ball Clay, 30% Feldspar and 20% Silica; Treatment 1 40% Red Clay, 10% Chinese Ball Clay, 10% Feldspar, 20% Silica, 10% Oyster shells and 10% Clam shells; Treatment 2 40% Red Clay, 10% Chinese Ball Clay, 20% Feldspar, 20% Silica, 5% Oyster shells, 5% Clam shells; Treatment 3 40% Red Clay, 10% Chinese Ball Clay, 10% Feldspar, 20% Silica and 20% Oyster shells; Treatment 4 40% Red Clay, 10% Chinese Ball Clay, 20% Feldspar, 20% Silica and 10% Oyster shells; Treatment 5 40% Red Clay, 10% Chinese Ball Clay, 10% Feldspar, 10% Silica and 20% Clam shells; Treatment 6 40% Red Clay, 10% Chinese Ball Clay, 20% Feldspar, 20% Silica and 10% Clam shells.

Highly significant results were obtained in the parameters such as general acceptability, texture, color, mass, and density of the flower vase. However, non-significant results were obtained from volume, general acceptability, texture, and color of the flower vase.

In terms of the production cost or economic feasibility, treatments 1, 3, and 5 got the best results.

It was proven that pure clay is still the most advisable material for the manufacture of flower vase, but Treatment 4 or 40% Red Clay, 10% Chinese Ball Clay, 20% Feldspar, 20% Silica and 10% Oyster shells can also be utilized.

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# UTILIZATION OF OYSTER AND CLAM SHELLS IN THE MANUFACTURE OF FLOWER VASE <sup>1/</sup>

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<sup>1/</sup>A Research Study submitted to the faculty of the Laboratory School, College of Education, Cavite State University, Indang, Cavite in partial fulfillment of the requirements for graduation, prepared under the supervision of Engr. Renato B. Cubilla.

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## INTRODUCTION

Flower vases are common additions in houses for functional and decorative purposes. Flower vase, which is a type of ceramic, is usually made of feldspar, quartz, sand, iron oxides, alumina and clay. One of its most important ingredients is clay, which can be a mixture of one or more clay minerals with salts or common elements such as iron and calcium.

The high price of such flower vases because of high price of clay materials restricts consumers from purchasing them.

Oysters and clams are mollusks belonging to the class bivalvia are abundant shellfishes that can be found locally. They are edible bivalves with shells that are usually discarded after being eaten. Oyster and clam shells are basically composed of calcium carbonate. Oyster shells were even found to be good fertilizers because they have properties of calcium carbonates, phosphorus, potassium and sulfur. They can also be