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PATTERN DISTRIBUTION OF FINGERPRINTS IN
THREE ETHNIC GROUPS IN NUEVA VIZCAYA

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A Dissertation

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Mary Therese N. Cabalonga

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ABSTRACT

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Three Ethnic Groups in Nueva Vizcaya"

Adviser: Dr. Melecio C. Deauna

Statement of the Problem

This research was conducted to determine the pattern distribution of fingerprints in three ethnic groups in Nueva Vizcaya:

- a. the Gaddangs;
- b. the Isinays; and
- c. the Ikalabans

This study was done in various towns of Nueva Vizcaya where these particular groups of people live. The fingerprints of the members of these groups were collected from October, 1990 to January, 1991.

Specifically, the study sought to answer the following questions:

1. What is the pattern distribution of fingerprints in terms of the ten digits in each of the three ethnic groups in Nueva Vizcaya? For each of the



ethnic groups,

- a. which pattern occurs most frequently?
- b. which pattern occurs the least?
2. How do fingerprint patterns of males and females compare in each of the ethnic groups?
3. What is the pattern distribution of fingerprints of each of the ten digits in each of the three ethnic groups?
4. What is the observed fingerprints pattern distribution in each of the three ethnic groups as to:
 - a. symmetry of single digits - which finger has the same pattern distribution as compared to the other fingers in each hand? Is there a pattern of distribution of fingerprints of the index, middle, ring and small fingers with respect to the thumb?
 - b. symmetry of right and left hand - comparing corresponding digits on both hands.
5. How do the pattern distribution of each of the ten digits compare among the three ethnic groups?

These problems were transformed into hypotheses which were tested with the χ^2 test for independent samples at the 0.10 level of significance.



Findings

There is significant difference in pattern distribution of fingerprints, whether comparison is in terms of the ten digits in each ethnic group, or among the ethnic groups; between the male and female sexes, in all three ethnic groups; or even among the fingers of each hand, or between corresponding fingers of the right and left hand in each of the three ethnic groups.

The study also found out that loops were the highest type of fingerprint pattern, arches the least in all three ethnic groups. But when pattern distribution was studied for separate sexes, a different pattern distribution was found in the male Isinay group, where whorls were most in number. As in the general trend, all other sex groups had most loops and least arches.

Conclusions

1. Every finger has its own and distinct pattern, that is, for every individual in each of the three ethnic groups: the Gaddang, the Isinay, the Ikalahan ethnic groups.



2. The ethnic groups in Nueva Vizcaya, particularly the Gaddangs, the Isinays, and the Ikalahans have their own pattern of distribution of arches, loops and whorls with loops as the most common pattern type and arches, the least pattern type.

3. There is significant difference in pattern distribution of fingerprints, whether comparison is in terms of the ten digits in each ethnic group, or among the ethnic groups; between the male and female sexes in all three ethnic groups; or even among the fingers of each hand, or between corresponding fingers on the right and the left hand in each of the three ethnic groups. No ethnic group studied was found to be similar to any of the racial groups previously studied. As to fingerprint pattern, there was no sign that they belong to the same group of people.



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