

# ABSTRACTS

Volume 19, Number 2

## Sequence Determination in Cases of Non-Intersecting Electrophotographic Print and Handwritten Entries

Martina Lunakova

The article deals with the possibilities of establishing the sequence of handwritten and printed entries in cases with no direct intersection of the two. You can follow the research and development of a method based on direct optical evaluation using a digital microscope with maximum magnification of up to 800x and 2500x, and a method of indirect optical evaluation according to the distribution of toner particles on a sheet of paper using a simple micro zoom camera.

Key words: Sequence of entries, electrophotographic print, handwritten strokes (entries), toner particles, optical method, yellow toner, reflective properties, NIR lighting.

## Handwriting Under Acute Inclination on Soft Writing Substrate Versus Tracing Drawn Outlines

John D. Makris.

## A Study on the Handwriting of Adolescents in Singapore

Chiew Yung YANG, Chin Chin LIM, Yvonne Hui Ying SIM

The handwriting of adolescents is an interesting and challenging topic. Although a number of similar studies have been conducted in the past, most of these pertain to handwriting in North America and as such, research is limited in Asia. The way handwriting is taught can vary significantly across geographical locations. As shown in the preliminary study conducted in 2014 on the handwriting of 60 students in Secondary 1 (12 to 13 year olds) from a school in Singapore, the writing styles and prominent characteristics of the local population showed differences from those previously reported in other countries. More work has since been done to expand this study to include a greater number of students from three local secondary schools. The results of writing samples from 382 students confirmed that there are a number of differences in the writing styles and characteristics of adolescents between the current Singapore study and previous studies from other countries.

# **Laypersons' Performance in the Determination of Authorship from a Homogenous Group Of Writers\***

**Marie E. Durina and Michael P. Caligiuri, Ph.D.**

**In 2009, the authors reported a study involving 49 FDEs from 5 countries who attempted to determine authorship of writing samples from 52 writers who had grown up in the same neighborhood, attended the same school, and who had all learned to write using the Palmer method. In that initial study, FDEs were able to successfully attribute authorship with average accuracy scores of approximately 98%. A subsequent study was conducted involving a group of 46 Laypersons who were assigned the same comparison tasks as the FDEs involving the same writing specimens. This secondary study compared accuracy and error rates attained by the Laypersons with those attained by the FDEs. Findings demonstrated that the Laypersons in this study were able to determine authorship with average accuracy scores of approximately 76%. A comparison of error rates between the two groups showed an error rate of approximately 39% for the Laypersons Group, compared to approximately 3% for the FDE Group. Additional findings showed there were profound differences between both groups in the number of writing specimens that were problematic for the examiners, and in the strategies they used in examination and comparison of the handwriting samples.**