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### An exploratory study about client satisfaction in dermatoglyphics multiple intelligence test

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#### Abstract

This research aims to assess the reports generated from the Dermatoglyphics Multiple Intelligence Test (DMIT) administered by ADRC Asian Dermatoglyphics Research Centre Malaysia with the end view of identifying its implication and finding out the client satisfaction from DMIT in their real life situation. Their satisfaction level determine the validity of the test that helps the whole society to realize their potential through this tool.

This paper employed the descriptive research method which involved the use of questionnaires and interviews with purposively selected respondents supported by the researchers' analysis and insights with reference to the content of the data.

Findings of this research revealed that the dermatoglyphics, as a scientific discipline, began with the publication of Purkinje's thesis (1823) and Galton's classic book, Fingerprints (1892); DMIT is a remarkable offshoot of Howard Gardner's Theory of Multiple Intelligences which has the following salient features: Overview of the Dermatoglyphics and the Dermatoglyphics Multiple Intelligence Test/Analysis; Quantitative Chart of Neocortex, Personality Assessment; Profile based on Gardner's Multiple Intelligences and; Learning Styles; Strength of Congenital Abilities; Working Style; Leadership Style; Management Style; Report Interpretation; and Customized Academic and Relationship Advises; the respondents of this study gave their perceptions with reference to the beneficial results of the DMIT; and the foregoing findings have some implications that may be used by academic institutions and individuals to enhance their life and make it more successful.

Keywords: Dermatoglyphics, Dermatoglyphics Multiple Intelligence Test/Analysis, DMIT, Multiple Intelligences

#### 1. Introduction

Many individuals have challenges in life that they may feel need to be addressed by seeing a therapist or a counsellor. Such challenges may include learning or cognitive issues such as ADD/ADHD or a specific learning disability; relationship crisis, issues in the family or with friends, issues with not being able to get the right career. Whatever life challenge(s) one is experiencing, needs to be addressed professionally by the therapist or the counselor. We are looking at tools like DMIT which may serve as the wonder tool to identify inborn talents. It helps identify the inborn potential of an individual, India has 487 million workers, but more than two-thirds of Indian employers report that they struggle to find workers with the right skills. This contrast points to clear opportunities ahead, while posing serious questions as to how India can get the best out of its people through education and training. India's rank in the Forum's Human Capital Report is 78th of 122 countries. People face various challenges in their life from childhood to adulthood. Some of the challenges are, not being able to see where their potential actually lies and wanting to identify what they really would like to do for life. Students face challenges when they are not able to study as expected and attain high marks. Students fail to understand the best way to learn and face challenges in doing well for exams and therefore in their lives. Our mission is to provide a broad spectrum of personnel services to the students. These services include student assessment, identifying personality, learning styles, career options and guide students and adults towards a brighter and successful future In 1983 American developmental psychologist Dr. Howard Gardner developed a theory of Multiple Intelligence (MI).

A few years ago a rather remarkable commercial spin off from Gardner Theory became available a product named DMIT which stands for Dermatoglyphics Multiple Intelligence Test.

1892-Sir Francis Galton a British anthropologist and a cousin of Charles Darwin, published his book, "Fingerprints", establishing the individuality and permanence of fingerprints.

1926-Harold Cummins, the Father of Dermatoglyphics and C. Midlo studied all aspects of fingerprint analysis, from anthropology to genetics and embryology perspective. In 1943 he published a book, "Finger Prints, Palms and Soles", a bible in the field of dermatoglyphics.

1944-Dr Julius Spier Psycho-Analytic Chirologist published "The Hands of Children" he made several significant discoveries especially in the area of psycho-sexual development and the diagnosis of imbalances and problems in this area from the patterns of the hands.

Science increasing performance - Dermatoglyphics, somatotype and basic qualities profile is used for Brazilian Military Alhletes. (Elixir 2013)

Dermatoglyphics is the study of fingerprints, palm prints and sole prints. The dermal ridges begin to form around the 13th week of gestation and complete development by the end of the 21st week, and then remain invariable. Each one's Dermatoglyphics pattern is unique and unalterable.

Dermatoglyphics pattern has been accepted as a diagnostic tool and has been extended into public research field as a dominant science.

Dermatoglyphics analysis is the combination of new computer technology and science (Quantitative analysis).By scanning and comparing the fingerprint patterns, we are able to find out the inborn advantages and give suggestions according to each person's own characteristics with no bias (Elixir2013)

The Multiple Intelligence (MI) Theory was proposed by Prof. Howard Gardner of Harvard University in 1983 in his pioneering book called *Frames of Mind* to define the concept of intelligence. This theory extends traditional notions of the gifted child by defining various kinds of intelligence of which a child may stand out, namely; linguistic, musical, logical/mathematical, visual/spatial, bodily/kinesthetic, intrapersonal, interpersonal, and naturalistic. In a nutshell, multiple intelligence theory is a pluralized way of understanding the intelligence (www.jazzabrain.com).

Howard Gardner's MI Theory made a strong impact among many educators all across the globe. This lead many educational theorists to embrace the MI theory because it provides opportunities for authentic learning based on the students' needs, interests and talents. Many academic institutions are now restructuring their curriculum according to these intelligences.

The website of Jazzabrain (2011) cited that MI and finger prints are related through clinical trials. Just as the development of fingerprints of a person is directly linked with the development of the brain, intelligence too is closely associated with the development of the brain (Garret, 2014).

The inception of various types of intelligences occurs within the brain during the gestation stage, and subsequently these intelligences start exhibiting themselves in various forms and ways after the child takes birth. The inherent intelligence of a person is reflected by the brain, and fingerprints provide information regarding the structure and development of the brain. Therefore, by studying the fingerprints of a person, the forms and manifestation of various types of intelligences too can be determined, generally in the form of a test commonly referred to as the Dermatoglyphics Multiple Intelligence Test (DMIT), according to Garret (2014).

#### 2. Objectives of the study

This research aimed to assess the reports generated from the Dermatoglyphics Multiple Intelligence Test (DMIT) administered by selected and recognized DMIT Resource Company and consultancy firm in India called ELIXIR connected to ADRC. Specifically, this research was conducted to identify the historic beginnings of dermatoglyphics, to identify the salient features of the DMIT, to determine the respondents' perception as regards its benefits with the end view of identifying its implication to enhance the life of an individual in all areas.

#### 3. Materials and methods

#### 3.1 Research Design

The present study employed the descriptive research design. This research design refers to the method used to describe data and characteristics used to describe the population. The purpose of using the descriptive research method is to acquire accurate, factual, systematic data that can provide readers with an actual picture of the data set that they are reviewing.

#### **3.2 Participants**

The respondents of the study include110 individuals in the age range 15 to 50 who were purposively chosen from selected academic institutions particularly in the cities of the Indian state Kerala. Likewise, the respondents of the study include students, parents, teenagers and adults who submitted themselves for dermatoglyphics analysis.

#### **3.3 Instruments**

In order to attain the first and second objectives of this study, the researchers made use of documentary materials in the form of DMIT reports from a reputable company ELIXIR connected to ADRC. And to realize the third and fourth objectives of this paper, the questionnaire and the Interview Schedule (IS) were used as basic tools for gathering data. According to Mercado (1999), the questionnaire is a self-administered research tool which consist of a series of questions and prompts information from the respondents while an IS is an intervieweradministered research tool that influences the reliability and validity of the data gathered from the respondents.

#### **3.4 Procedures**

An approval to utilize the DMIT reports from the DMIT resource company and consultancy firm ELIXIR and from the select guidance counselors, faculty members, parents, and students was sought. An approval to conduct the study was also availed of from the administrative authorities of various academic institutions to help facilitate the data gathering.

The Personal Interview Technique (PIT) and the Group Interview Technique (GIT) were employed by the researchers. Considering the limitations of the former, the GIT, as a complementary technique involves interviewing groups instead of individuals. It captures group consensus rather than individual opinion. Above all, this is much faster to conduct than personal interview. The GIT, according to Mercado (1999), is appropriate for gathering data needed in planning action projects while the personal interview is suitable in generating benchmark data that can serve as a basis of comparison for evaluating the impact of the project to the beneficiaries.

#### 3.5 Data Analysis

As with all data, analysis and interpretation are required to bring order and understanding of the study. This requires creativity, discipline and a systematic approach. Thus, the steps relative to analyzing data from the questionnaires and interview schedules, as described by Taylor-Power and Renner (2003), were used in this study. This include: getting to know the data, focusing the analysis, categorizing information, identifying patterns and connections within and between categories, and interpretation of the data.

#### 4. Results and discussion

#### 4.1. The Historical Root of Scientific Dermatoglyphics

Cave drawings and petroglyph diagrams that date back thousands of years provide an evidence of early man's interest in hands. However, the importance of such prehistoric samples is subject to broader understanding (www.jazzabrain.com). Dermatoglyphics has a long history in India and China. The use of hand and finger patterns as indicators of character traits or attributes is evident. Traditional beliefs from the aforecited countries follow the customs of reading certain patterns from fingerprints. Although the term "dermatoglyphics" was coined by Cummins and Midlo (1926), dermatoglyphics as a scientific discipline began with the publication of Purkinje's thesis (1823) and Galton's classic book, Fingerprints (1892). Even though the primary object of Galton's studies was to develop a personal identification system, he investigated the biological variation as shown by fingerprints, the unchangeable characteristics of the fingerprint patterns through longitudinal examinations, the inheritance as well as the racial variation of fingerprint patterns. In spite of the fact that interest in dermatoglyphic research continued unabated from the beginning of the twentieth century, dermatoglyphics entered into a phase of rapid expansion attracting a great number of scientists from all segments of biology, medicine and biological anthropology during the second half of this century (Gyenis, 2000).

## **4.2.** The Salient Features of the Dermatoglyphics Multiple Intelligences Test.

Different DMIT resource companies and consultancy firms have structured differently their DMIT reports to facilitate reading and comprehension. However, for the purpose of this study, only the most common salient features are presented. These include: The Overview of the Dermatoglyphics Technology and the Dermatoglyphics Multiple Intelligence Test/Analysis; Student's Personality Assessment which measures Adversity Quotient (AQ), Creativity Quotient (CQ), Emotional Quotient (EQ) and Intelligence Quotient (IQ); Student's Profile based on Gardner's Multiple Intelligences evident on Fingerprints; Student's Learning Styles based on Visual, Auditory and Kinesthetic Domains;;; Report Interpretation; and Customized Academic and Relationship Advises. In order to generate a DMIT report, the DMIT resource companies and consultancy firms adhere to the following procedures: finger capturing; finger print verification; scientific finger print analysis; DMIT report generation in laboratories; and report briefing by and consultation with professional dermatoglyphics counselors.

The Respondents' Perceptions with Reference to the Benefits Derived from the DMIT Reports

4.2.1 Clients: With reference to the clients perception relative to the benefits of DMIT reports, it is noteworthy to mention that a general consensus was made. 96% of the respondents strongly agree that the result of this test can provide a baseline data of their inborn talents, brain strengths and this would inturn help in taking the right decisions in life especially towards taking the right course for study, taking the right step to activities they could involve in that would make their brain happy and activated all the time. By knowing the quantitative chart of neocortex one could know about their leadership skills, language and visual skills and learn to focus in those areas that is high for them. They averred that this tool could be used very effectively in multiple areas like knowing execution and thinking style, personality and career and this opportunity should therefore be given to every student to live his life successfully knowing his inborn. This sophisticated software when utilized by clients would contribute to the enhancement of life standards.

4.2.2 Students: 98% of the respondents strongly agree that the result of the DMIT helped them to understand their learning styles and change their studying habits. Many of them realized that they were not using the right study methodology based on their brain strength and innate learning style. While most other tests offer, at best, only a static result of a given performance at any time, the respondents believe that the DMIT may assist in the continual mapping of the students' development and growth of talent along an educational gradient. Likewise, they believe that there are certain personality traits, attitudes and skills that they can bring to their workplace after college. They averred that result of the DMIT can also give them inputs as regards the parallels between approaches to schooling (development of skills and nurturance of personality) and approaches to work (application of training). The self-insight on these personal traits, attitudes and skills prompt their total lifestyle concerns. This personal inventory assessment can lighten them to the occupational mix which makes the individual assume purposely the action in the life/career planning process.

**4.2.3 Family Members:** It is noteworthy to mention that 100% of the family members especially parents strongly agree that the DMIT results can be used as baseline data to identify a student's intelligence profile, recognize their strengths, work with their challenged areas, and help them be more successful in school. They stressed that the test can help the students to build on areas in which they struggle and take greater advantage of their gifts, becoming more engaged, confident and motivated. They also found that by knowing the personality traits of the child it helps them to understand how to handle the child in the best way so as to see that he is happy and inturn parents are also happy. Parents are able to accept the child for his or her innate

personality and then very tactfully behave with the child in a way that accommodates his personality.

# **4.3 The Implication of the Dermatoglyphics Multiple Intelligence Test Results to the Enhancement of Life Strategies**

Since other researches have been conducted on the same area but on a less extensive scale and that previous studies were primarily concerned with the relationship of fingerprint patterns with the students' multiple intelligences, this study which is a formal assessment of the Dermatoglyphics Multiple Intelligence Test reports administered by DMIT resource company ELIXIR which is a company affiliated to ADRC Asian Dermatoglyphics Research Centre Malaysia

The present study focused not only in providing a baseline data for its historical development, salient features but it is likewise focused on the benefits and implication derived from the results of the said test. The result of the interviews conducted has received positive remarks from the respondents specifically from the parents, students, and clients. It is noteworthy to mention that there was a general consensus from the respondents as regards the DMIT's beneficial effects. They averred that the said test critically assesses the inherent acumen and aptitude of the individual, and attempts to map the different creative and cognitive processes within the student's brain. While most other tests offer, at best, only a static result of a given performance at any time, the DMIT continually maps the students' growth and development of talent along an educational gradient. In real-world academics, DMIT helps individuals augment their already-existing skill sets and make for an enhanced learning experience. It is also worth mentioning that the findings of this study provide baseline data in major course preferences as a measure of the student's goal-setting behavior for their present and future lifestyles/expectations. There is a felt need to strengthen the skill based programs in academic institutions based on MI and a need for educators who are well trained for the job. Thus, the plight of the students with diverse background calls for special service from these DMIT counselors. Lastly the governments of different countries should take this test as a stepping stone to creating success in any individual.

#### 5. Conclusion

The term dermatoglyphics was coined by Cummins and Midlo in 1926. However, as a scientific discipline, it began with the publication of Purkinje's thesis (1823) and Galton's classic book, *Fingerprints* (1892).

Dermatoglyphics Multiple Intelligence Test is a remarkable offshoot of Howard Gardner's Theory of Multiple Intelligences which has the following salient features: Overview of the Dermatoglyphics and the Dermatoglyphics Multiple Intelligence Test/Analysis;

The result of the interviews conducted relative to the beneficial effects of the DMIT results has received positive remarks from the respondents specifically from the students of academic institutions, parents, and other clients. They averred that result of the DMIT may be used by the guidance and counseling offices of various academic institutions to critically assess the inherent acumen and aptitude of the students enrolled in their programs and to assist in the continual mapping of the growth and development of the student's talent, attitude and skills along an educational gradient. Likewise, the result of this test may be used by the teachers as a proposed input into guiding students with their innate learning style and study skills. The foregoing findings have some implications that may be used by academic institutions to enhance their career guidance program. It is also worth mentioning that the findings of this study provide baseline data in major course preferences as a measure of the student's goal-setting behavior for their present and future lifestyles/expectations. There is a need to strengthen the self confidence and self esteem for students by identifying their innate abilities and guiding them to a more happy and satisfied life. There is also a need to train teachers towards this so that they serve as the best facilitators to nurture their children towards their life purpose. They would be able to guide them based on the innate findings of each student and create opportunities for them as well as treat each child differently based on their personality.

#### 6. Recommendation

The researchers recommended that academic institutions may use the findings of this study as basis in the enhancement of study skills, leadership skills, tapping different intelligences based on their MI, career skills, geared towards the attainment of the vision and mission of their educational institutions, the goals of their colleges and the objectives of their various programs; that teachers and heads of academic institutions may restructure or realign their teaching strategies based on dermatoglyphics technology in order meet the growing needs, interests and potentials of their student-clients; that faculty members may use this study as a supplemental instructional material when they teach subjects in line with the new trends in education and technology; that parents may recommend the utilization of the Dermatoglyphics Multiple Intelligence Test/Analysis for the enhancement of the youth's innate intelligence, potentials, preferred learning, communication, working, leadership and management styles as well as the latter's career interests and options. Meanwhile students may submit themselves to the said tests in order for them to identify, understand, and enhance their own inborn talents, attitudes and skills; that the DMIT resource companies and consultancy firms dedicate and commit themselves in providing their clients with a scientifically accurate of talent and skills identification and trajectory intensification. Future researchers may use this study as a frame of reference when they conduct studies on the same topic to substantiate the present investigation.

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