Role of Emotional Intelligence Dimensions in Stress Detection

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Abstract: Emotional Intelligence plays a vital role in our day to day life. EI helps to manage our emotions in positive ways. The objective of the present research paper is to study all the Intra PA, Inter PA, Intra PM, Inter PM dimensions of gathered dataset regarding EI and its impact on stress detection. The goal of this paper is to make the gender smart comparative evaluation on nowadays society for this the dataset is created for the same by way of the usage of psychometric test via the statistical analysis on the identical self-created database it has been discovered that female should improve her EI Dimensions to overcome stress & by using t-test it proves that there may be a statistically huge difference between male and female close to normal strain however it can be different if there is another parameter is becoming a member of.

Keywords: EI, Inter PA, Inter PM, Intra PA, Intra PM, Mean, SD, Stress, t-test.

1. INTRODUCTION

The main purpose of this research paper is to examine the role of EI dimensions on stress detection. There are four main types of EI dimensions according to Dr. S.K. Mangaland Mrs. Shubra Mangal. If the people know their all EI dimensions regarding stress, they are able to know their weaker section of EI dimensions try to improve and manage their stress more efficiently.

Our life schedule is a challenging in nature not for only employers or parents as well as their children’s also. If we talk about employers or parents they should managing the boundary between home and office and if we talk about students they should managing the boundary between home and school. This paper helps to gain knowledge about the how EI dimensions is effect on stress.

1.1. EI:

According to Daniel Goleman [7], the oldest centers of the human brain, those responsible for feelings, are also responsible for managing ourselves and our social skills. These are skills that are contained in the genetic development of people and serve for the survival and adaptation of mankind. The emotional part of the brain perceives the world differently than the reasonable part. This conclusion brings new perspective on an enormous gap between cognition and emotion. Some skills are just cognitive, such as analytical thinking and technical skills. Some of them are a mixture of combined parts between cognition and emotion; this is called emotional intelligence (Goleman, 2001, p. 18–36).

Emotional intelligence can therefore be defined as the ability to recognize and adjust our emotions that trigger our responses with certain situations or people. We can learn how to gain control over our responses and actively participate in forming our social skills. Emotional intelligence – the ability to manage ourselves and our relationships – consists of four fundamental capabilities: self-awareness, self-management, social awareness, and social skill. Each capability, in turn, is composed of specific sets of competencies (Goleman, Boyatziss & McKee, 2002, 263–265).

EI defined as [8] “The ability to identify and manage one’s own emotions, as well as the emotions of others.”

1.2. Components of EI:

Depending on the model of EI used, there are generally five components to EI [8]:

- **Self-Awareness**: Knowing one's own feelings, qualities and weak points, values, drivers, and so on.
- **Self-Regulation**: The capacity to control and adjust one's own feelings, motivations, and energies.
- **Social Skills**: The capacity to successfully oversee associations with social groups or people.
- **Motivation**: It is related to self-motivation towards the goal.
- **Empathy**: Taking the sentiments of others into thought, particularly in the thoughtful process.

1.3. Dimensions of EI:

Following are the four main dimensions of EI:

- **Intra Personal Awareness (Intra PA)**
- **Inter Personal Awareness (Inter PA)**
- **Intra Personal Management (Intra PM)**
- **Inter Personal Management (Inter PM)**

- **Intra PA**: Here, you can accurately perceive your emotions and stay aware of them as they happen.
- **Inter PA**: Here, you can accurately pick up on emotions in other people and understand what is going on.

Figure 1: Components of EI

![Figure 1: Components of EI](image-url)
iii. **Intra PM**: In Intra PM, you can use awareness of your emotions to stay flexible and positively direct your behavior.

iv. **Inter PM**: Here, you can use awareness of your emotions and the others emotions to manage interactions successfully.

**II. CREATIONOFDATASETANDPRE-PROCESSING**

For a collection of datasets, an online Google form became used. Google form protected the personal data fields like Name, Gender & Name of City. After collection of information records pre-processing is done for avoiding incomplete irrelevant or uncooked facts input, after that code is given to every dataset.

**III. METHODOLOGY**

Online dataset collection plays a vital role in this research so it saves a lot of time. The topics of the look consisted of a hundred and four subjects, wherein 55 male subjects and 49 females’ subjects are included. For the gathering of all research associated facts for this research, Emotional Intelligence inventory is used. Emotional intelligence inventory has a hundred questions objects, 25 every from the 4 regions to be spoken back as “Positive” or “Negative”. The mode of reaction to every object is both “positive” or “negative” indicating whole agreement or warfare of words with the proposed announcement. The device has both excessive exceptional and bad gadgets. For scoring one mark is supplied for the response indicating the presence of emotional intelligence and zero for the absence of emotional intelligence. The information has been analyzed with the perfect statistical measures to justify the targets of the research for that Mean, SD & t-test is used.

**IV. ANALYSIS OF RESULT**

**4.1 Standard Norm table:**

| Sr. No. | EI Dimensions | Gender | Mean  | Interpretation |
|---------|----------------|--------|-------|----------------|
| 1       | Intra PA       | Male   | 14.89 | Poor           |
|         |                | Female | 14.08 | Poor           |
| 2       | Inter PA       | Male   | 15.60 | Average        |
|         |                | Female | 14.76 | Average        |
| 3       | Intra PM       | Male   | 17.11 | Average        |
|         |                | Female | 13.98 | Poor           |
| 4       | Inter PM       | Male   | 16.13 | Average        |
|         |                | Female | 12.37 | Poor           |
| 5       | OverallStress  | Male   | 63.73 | Good           |
|         |                | Female | 55.18 | Average        |

**Table 1: Standard Norm Table with Interpretation**

Table 1: Shows the Standard Norm table with its Interpretation level of EI Dimensions and Overall Stress. Here, the Inter PA levels of interpretation of females the same as males, whereas in the other three dimensions of EI performance of males is better than female.

Graph 1: Standard Norm table

Table 2: Case Processing Summary Shows that there are 104 datasets, from that 55 is male and 49 is female. There is no system and user-generated missing values

**4.2 Case processing summary:**

| Gender | Cases | Valid | Missing | Total |
|--------|-------|-------|---------|-------|
| Male   | 55    | 100%  | 0%      | 55    |
| Female | 49    | 100%  | 0%      | 49    |

**4.3 Test of Normality:**

| Overall Stress | Gender | Shapiro-Wilk |
|----------------|--------|--------------|
|                |        | Statistic    | df     | Sig.  |
| Male           |        | 0.970        | 55     | 0.181 |
| Female         |        | 0.983        | 49     | 0.674 |

**Table 3: Test of Normality**

In the Test of Normality Table 3 shapiro-wilk test is considered it shows that the overall stress of male and female are normally distributed because the research data is normally distributed parametric statistical analysis used.
Table 4: t-Test

|       | Gender | Mean | SD  | t-value | Sig. at 0.05 |
|-------|--------|------|-----|---------|--------------|
| Intra PA | Male   | 14.89| 4.215 | 1.266   | 0.209        |
|        | Female | 14.08| 2.050 |         |              |
| Inter PA | Male   | 15.60| 3.504 | 1.375   | 0.172        |
|        | Female | 14.76| 2.750 |         |              |
| Intra PM | Male   | 17.11| 3.089 | 5.516   | 0.000        |
|        | Female | 13.98| 2.696 |         |              |
| Inter PM | Male   | 16.13| 3.647 | 6.862   | 0.000        |
|        | Female | 12.37| 1.692 |         |              |
| Overall Stress | Male | 63.73 | 10.584 | 5.381 | 0.000 |
|        | Female | 55.18| 4.872 |         |              |

Table 4: t-Test indicates the acquired mean & SD changed for Intra PA, Inter PA, Intra PM, Inter PM. The table shows that in all EI dimensions performance of males is good as compare to females and there is a significant difference.

V. CONCLUSION

The Interpretation Inter PA level of females same as male which is average so the female to improve her other three dimensions of EI to overcome her stress level. The t-test is proved that there is a sizable difference among all EI Dimensions in genders. Female suffer own extra stress than the male because there may be a problem in family & office or both so they can’t able to manage her EI dimensions and its effect on her stress so, we should support females and encourage them to leave stress-free life.

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