Personality Traits and Birth Order as Correlate of Emotional Intelligence among Secondary School Students in Delta State

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Abstract. The study investigated personality traits and birth order as correlate of emotional intelligence among secondary school students in Delta state. A sample of 750 secondary school students was used for the study. Simple random and proportionate stratified sampling was used to compose the sample. Two research questions were answered while two corresponding null hypotheses were tested in the study at 0.05 level of significance. Two instruments titled Birth Order and Personality Trait Questionnaire (BOPTQ) were used for the study. The instruments were validated by experts in Measurement and Evaluation. A reliability coefficient of 0.83 was obtained using Cronbach Alpha. Mean, standard deviation, regression and ANOVA were used to answer and test the research questions and hypotheses respectively. It was revealed among others that birth order influences emotional intelligence of secondary school students. It was also revealed that there is a positive relationship between all the five personality traits and emotional intelligence of secondary school students. Based on the findings, it was recommended among others that students should be thought measures on how to develop their emotional intelligence both by parents and teachers in school. The study has established empirically that personality traits significantly predict emotional intelligence among secondary school students in Delta state.

Keywords: Personality traits, Birth order, Emotional Intelligence and school students.

1. Introduction

The field of emotional intelligence has drawn the interest of the general public including educators and all spheres of education. Emotional intelligence has relevance to all parts of human needs including the knowledge of yourself and how such relationships are handled. Emotional intelligence is a different part of human mind which is sufficient enough in handling human intelligence by interpreting it in a more scientific method. When the human mind is understood, there is the tendency that success rate will also increase and this will affect all aspect of human activities. Thus, emotional intelligence essentially shows our ability to manage other people’s behaviour while we control our own feelings. Inquisitiveness of the excellent academic requirements to study know emotional intelligence to achieve the relevant aspects of the heart of man. When an individual is able to control his feelings, needs and desires, he is said to be emotionally intelligent. It is a person’s knowledge of his/her mental strength and personality towards coping and dealing with others in any environment you find yourself. Mestre and Barchard (2014) was of the view that when a person is able to understand and control his/her own emotions and that of others around them, they are said to be emotional intelligent.

Emotional intelligence comprises of five essential components which are self-awareness, self-regulation, self-motivation, empathy and social skills. Self-awareness is the capacity to know one’s state of mind and to presently identify and name one’s emotion. Managing emotion refers to the capacity to control or re-direct unrest urges and mood and the tendency to decisions, to reason before reacting. Self-motivation is the desire to carry out any task without financial reasons. Empathy is the ability to understand deeply how people feel by assuming ourselves in their situation for better understanding while social skill is the tendency to cope in a relationship with others and accommodate wrongs and right for flow of communication. Different researchers have revealed the relationship between high emotional intelligence and academics performance of students. (Parker, 2004; Downey, 2008). Moreover, emotional intelligence may have influence on academic performance of students with low cognitive (Qualter, 2012). It has been proved by
Previous researchers that if emotional intelligence is improved, there is the tendency that it will benefit the entire public (Ruiz-Aranda, 2012; Castillo, 2013). In this light, one can consider that emotional intelligence could be used in educational settings as a primary and secondary school drop-out prevention tool. Mahanta (2015) in her study on EI and work-life balance in the service sector found that employees having high, moderate and low EI on various dimensions of work-life balance differs significantly. The results imply that for employees with average EI, there is low interference of personal life with work and work with personal life, and they have got a higher overall work-life balance compared to employees with low EI.

Birth order is a person's position in the family by age ranking among their siblings. Adler cited in Gilmore (2016) identified four types of birth order namely; first child, middle child, last child and only child. Arguments on the issue of birth order and emotional intelligence have never meant a consensus. It is theorized that our birth order begins to define us since early childhood. For instance, we may hear a mother explain that her little one has difficulty sharing because he or she is an only child, or that younger siblings must respect their older siblings as if they were their parents. One may expect or notice that a first-born child shows greater respect towards older family members, shows greater sense of responsibility, is more ambitious, and sometimes, even dominant or authoritative towards his or her younger siblings. These noticeable aspects provide a general basis for speculation of an individual’s behavior to laymen. Eisenman (2014) points out that the behaviour of parents towards their children creates a significant effect on the child’s behaviour and can influence the development of his or her personality as well. However, we cannot, of course, believe that every first-born child will show an anxious personality or develop a better emotional intelligence as exceptions to such cases are bound to exist.

Personality traits could also predict human behaviour. Personality traits describe that a person is talkative, warmth, success seeker, achievement oriented, depressed or tense. On the ground of the above, personality traits and emotional intelligence are the basic and relevant issues in the development of student life and their success in their academic life and also in their career (Beer & Nohria, 2000). Personality traits and emotional intelligence are related constructs as emotional intelligence has a concept of understanding and control of personality formation or construction. Emotional intelligence model given by the Mayer and Salovey (1993) which is also known as the pure model or ability model of emotional intelligence also have similar characteristics with some sub component of personality traits model such as agreeableness and openness to experience (Bracket & Mayer, 2003). The five models of personality traits as developed by Mayer and Salovey (extraversion, neuroticism, agreeableness, conscientiousness, openness to experience) are the most commonly used personality models by researchers.

2. Review of Literature

Emotional intelligence is the tendency to know and coordinate emotions completely for better and positive internal and outside relationships results. The brain is the warehouse of our emotions which directs us on when to react, fight or flight towards achieving positive goals in life. Emotions are processed through the frontal lobe which is the higher otherwise called the “executive function” domain of the brain. Frontal lobes usually develop completely at or about the age of 25 which is above the adolescent stage of life therefore exposing the adolescent to poor habits or decisions in most cases. Emotional intelligence is the capability to carry out reasoning in respect to emotions and vice versa. There are 5 dominant components of Emotional Intelligence which explain the levels of emotional intelligence of a person according to Goleman’s EQ model. They are Self-Awareness, Self-Confidence, Self-Control, Empathy and Social Competency. Self-awareness is the foundation of personal growth and success. It implies that you see how you feel and can precisely evaluate your own emotional state. Self-Confidence is a vital part of the Behavioral EQ Model. It refers to the emotions connected with self-worth and individual competence. Self-control refers to how we control or successfully deal with the practices our emotions trigger. Individuals with compelling passionate self-control figure out how to stay made and balanced even in distressing circumstances. Empathy is the "capacity" to share and know other people’s "state of mind" or emotion. It is mostly seen as the ability to “put oneself into another’s shoes”, or in some way experience the outlook or emotions of another being within oneself. Empathy is the ability to feel what the other person is feeling. Social competence is the capacity of a person to understand and cope with others in or around him. It is a very vital aspect of emotional intelligence as it is required in our daily and day to day conversations with people and it helps us cope in relationship of all kind. The concept Birth order refers to our position in the family whether we are the first child in a family, last
child or maybe only as the case may be. Some researchers are of the view that our level of relationship with our siblings could help develop us in life. Consequently, birth order could be part of the reason we are what we are today. Although, there is no single reason or determinant of what one would become in the future. The concept of birth order is usually tied to Alfred Adler who is usually known as the founder. The Firstborn child in a family receives the most attention until the second child is born, at which point they are often expected to take on more responsibility. The first child is a perfectionist, they are conscientious and reliable, they are list-makers and always well-organized, conservative, self-sacrificing, believer in authority and ritual, and self-reliant. A common characteristic of a first child is confidence in being taken relevant by people around him. Like the first children, the single child is always seen like little adults most times to the point of thinking they have never been children. The characteristics of describing the first children are also similar to that of the first child. If the only child becomes victim to perfectionism, they usually move forward to one or two extremes. The middle child is commonly called the “lost child” because they are sometimes high achievers, nor the favourite child of the family, they are meant to feel like strangers (Eckstein in Gilmore 2016; Healey, & Ellis in Gilmore, 2016). They tend to have the smallest “acting out” challenges and are highly sociable because they depend on outsiders and friends instead of family members for help and attention (Salmon, 2003). The Last child or youngest child is seen as the baby of the family and is often looked on as a carefree and spoiled position in the family. The last children in the family are usually the outgoing types, the personable puppeteer. They are also passionate, simplified, and at times an absent-minded person. Same way children are given preferential treatment by their parents; they may likely develop different level of emotional intelligence. Studies have shown that emotional intelligence of students differs in birth order. Ologbo and Anini (2013) stated in their study that the first born children have a better emotional intelligence than others.

Personality is “conceptualized as the entire mental organization of a person’s traits, where traits are defined as a cross-situational and temporally stable set of individual attributes” (Wehrli, 2008). Klasa (2009) also defined personality traits as enduring personal characteristics that are revealed in a particular pattern of behaviour in different situations. The most commonly used type of traits is called the Big Five personality. They are usually known with the acronym CANOE: Conscientiousness, Agreeableness, Neuroticism, Openness and Extraversion. Each of the traits of the Big 5 can be segmented into facets to give detailed fine-grained understanding of a persons’ personality. It is a dimension of personality which describe about a person that is he talkative, sociable assertive, energetic, outgoing, active, quite, reserved, silent and many others. Extraversion describes effective functioning and well-being in social setting (Ozer & Benet-Martinez, 2006). It is the ability to predict risk and resilience for different Psychopathologist (Trull & Sher, 1994; Widiger, 2005). Extraversion is an ability which shows that person focuses on external world while a person which lacks this quality means introvert focus on inner world and thoughts. Neuroticism dimension of personality explains emotional stability of person high scores on neuroticism show danger of severe Pathology or Psychological problem. High scores show four, sadness, Anxiety, tense, Irritability, depression, anger, guilt, embarrassment etc. Low scores on neuroticism show emotional stability of a person. According to Hormann and Maschke (1996) Neuroticism is the predictor of success or performance. Agreeableness shows co-operativeness of an individual. High score shows that person is co-operative, sympathetic to others, Trustworthy and anger to help others. While low scores show that person is competitive rather than co-operative, selfish and lack of empathy. According to Salgado (1997) agreeableness shows success in life, co-operative nature support or help in team-working. Less agreeable persons are proving their selves goods as managers.

Conscientiousness shows competency of an individual. High scores show efficiency, working in organized manner, self-discipline and active in planning process. It shows to complete a task in an organized and effective manner. High score shows hard working, goal oriented while low scores show criminal behavior, lack of success or lack of goal orientation and involve in anti-social activities. Openness to experience has six factors or dimension. These six dimensions are imagination or fantasy, attentiveness to inner feelings, aesthetic sensitivity, intellectual curiosity, adventurousness and performance for variety. High scores show loves to fantasize or have a creative imagination, aware of their own feelings. Appreciate arts or have interests in arts, loves traveling or visit new places of try new things, question or challenge traditional values or authority, loves to play with ideas or loves to debate, engage in intellectual discussions. Low scores show preference to facts rather than imagination, not so good to express their emotions and also not aware
about their emotions, no interest in arts, prefer routine, follow traditions and rules and think that intellectual discussions are waste of time. Several studies have shown that personality traits could determine our level of emotional intelligence (Kola & Danki, 2015; Yang, 2006; Alafin, Odinaka, Okilo & Alabor, 2008).

3. Statement of the Problem

There is no doubt emotional intelligence can help individuals excel through life transitions starting from school to college, and later into the working world. At the college level, emotional intelligence is seen as a valuable skill that helps students to manage and cope with the demanding nature of the academy. Emotionally intelligent students are more successful in living their college life and thus, are able to learn and perform academically. Having this in mind, it becomes worrisome how secondary school students who are mostly adolescents facing problems of independence and identity with different personality traits and different family upbringing battle the development of trying to be emotionally intelligent so as to cope with others on day to day activities. It could also be observed by the researchers that most parents' give some children preferential treatment against others and this has made such children to develop specific behaviours and might have effect on the personality traits and emotional intelligence of the child. The problem of the study therefore is to investigate personality traits and birth order as correlate of emotional intelligence among secondary school students in Delta State.

4. Objectives of the Study

The aim of this study is to investigate personality traits and birth order as correlate of emotional intelligence among secondary school students in Delta State. Specifically, the study intends to:
- Examine the extent to which the personality traits of conscientiousness, openness to experience, agreeableness, extraversion and neuroticism jointly and individually predict emotional intelligence among secondary school students.
- Determine the influence of birth order (first child, middle child, last child and only child) on emotional intelligence among secondary school students.

5. Research questions

This study was guided by two research questions as follows:
- To what extent do the personality traits of conscientiousness, openness to experience, agreeableness, extraversion and neuroticism jointly and individually predict emotional intelligence among secondary school students in Delta state?
- What is the influence of birth order (first child, middle child, last child and only child) on emotional intelligence among secondary school students?

6. Hypothesis

Two corresponding null hypotheses were tested at 0.05 level of significance to guide this study:
- Personality traits of conscientiousness, openness to experience, agreeableness, extraversion and neuroticism jointly and individually does not significantly predict emotional intelligence among secondary school students in Delta state.
- Birth order does not significantly influence emotional intelligence among secondary school students.

7. Methodology

The ex post facto and correlation research designs were adopted for the study. The three (3) senatorial districts (Delta central, Delta North and Delta South) were used as the clusters for the study. A sample of 750 public senior secondary school students was randomly selected from each of the districts for the study. Two instruments were used for the study which is the Birth Order and Personality Trait Questionnaire (BOPTQ). Instruments were validated by experts in Measurement and Evaluation. A reliability coefficient of 0.83 was obtained using Cronbach Alpha. Research question one was answered using multiple regression while Mean and standard deviation were used to answer research question two (All birth order mean above the criterion mean was accepted and the reverse was the case). Hypothesis one was tested with ANOVA and t-test associated with multiple regression while hypothesis 2 was tested using ANOVA.

Research Question 1: To what extent do the personality traits of conscientiousness, openness to experience, agreeableness, extraversion and neuroticism jointly and individually predict emotional intelligence among secondary school students in Delta state?
Hypothesis 1: Personality traits of conscientiousness, openness to experience, agreeableness, extraversion and neuroticism jointly and individually does not significantly predict emotional intelligence among secondary school students in Delta state.

Table 1: Regression analysis of the extent personality traits of conscientiousness, openness to experience, agreeableness, extraversion and neuroticism jointly and individually predict emotional intelligence among secondary school students.

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>( \bar{x} )</th>
<th>SD</th>
<th>R</th>
<th>( R^2 )</th>
<th>Adjusted ( R^2 )</th>
<th>Std. Error of the estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conscientiousness</td>
<td>750</td>
<td>61.2</td>
<td>1.72</td>
<td>0.815</td>
<td>0.665</td>
<td>0.662</td>
<td>1.01578</td>
</tr>
<tr>
<td>Openness to experience</td>
<td>55.7</td>
<td>1.55</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agreeableness</td>
<td>52.5</td>
<td>0.97</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extraversion</td>
<td>69.4</td>
<td>1.34</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neuroticism</td>
<td>63.5</td>
<td>0.77</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1.2: Analysis of variance of the predictive powers of conscientiousness, openness to experience, agreeableness, extraversion and neuroticism jointly on emotional intelligence among secondary school students.

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1328.926</td>
<td>5</td>
<td>217.672</td>
<td>244.662</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>712.338</td>
<td>594</td>
<td>1.065</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1725.692</td>
<td>599</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1.3: Regression analysis of the predictive powers of conscientiousness, openness to experience, agreeableness, extraversion and neuroticism individually on emotional intelligence among secondary school students.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Sig.</th>
<th>95.0% Confidence Interval for B</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>-.013</td>
<td>.197</td>
<td>-.065</td>
<td>-206.0 - 17.9</td>
</tr>
<tr>
<td>Openness to experience</td>
<td>.614</td>
<td>.069</td>
<td>.505</td>
<td>7.534 .000 - 302.549</td>
</tr>
<tr>
<td>Extraversion Personality</td>
<td>.195</td>
<td>.044</td>
<td>.173</td>
<td>3.067 .002 - 200.048</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>-.027</td>
<td>.056</td>
<td>.027</td>
<td>879.502 - 136.077</td>
</tr>
<tr>
<td>Personality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agreeableness personality</td>
<td>.070</td>
<td>.070</td>
<td>.097</td>
<td>1.396 .163 - 168.168</td>
</tr>
<tr>
<td>Neuroticism personality</td>
<td>.255</td>
<td>.043</td>
<td>.184</td>
<td>5.991 .000 - 163.294</td>
</tr>
</tbody>
</table>

Table 1 shows that conscientiousness, openness to experience, agreeableness, extraversion and neuroticism jointly obtained a correlation coefficient of 0.815 which indicates a strong positive correlation. An \( R^2 \) of 0.665 was, however, for a more reliable result, adjusted \( R^2 \) obtained at 0.662 was used to answer the research question. The obtained adjusted \( R^2 \) showed that conscientiousness, openness to experience, agreeableness, extraversion and neuroticism combined accounts for 66.2% (0.662 x 100 = 66.2%) variation in emotional intelligence. Thus, joint personality traits of conscientiousness, openness to experience, agreeableness, extraversion and neuroticism predict emotional intelligence.

Table 1.2 above has shown that when converted to \( F \), the correlation has an \( F \) ratio of 244.662 that is significant \( (p \leq .05) \). This implies that Conscientiousness, openness to experience, agreeableness, extraversion and neuroticism jointly significantly predicts emotional intelligence among secondary school students.

Table 1.3 shows that unstandardized multiple regression of .614 for openness personality trait, .195 for extraversion, -.027 for conscientiousness, .070 for agreeableness and .255 for neuroticism. The table has also shown that openness to experience with t-value of 7.534 is significant at .000, extraversion with t-value of 3.067 is significant at .002, conscientiousness with t-value of .879 is significant at .502, agreeableness with t-value of 1.396 is significant at .163 and neuroticism with t-value of 5.991 is significant at .000. Therefore, each of the personality traits has significant contribution to emotional intelligence among secondary school students.
**Research Question 2:** What is the influence of birth order (first child, middle child, last child and only child) on emotional intelligence among secondary school students?

**Hypothesis 2:** Birth order does not significantly influence emotional intelligence among secondary school students.

**Table 2:** Mean and standard deviation of the influence of birth order (First child, Middle child, Last child and Only child) on emotional intelligence among secondary school students.

<table>
<thead>
<tr>
<th>Birth Order</th>
<th>N</th>
<th>( \bar{x} )</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Child</td>
<td>192</td>
<td>59.45</td>
<td>0.68</td>
</tr>
<tr>
<td>Middle Child</td>
<td>255</td>
<td>57.37</td>
<td>1.80</td>
</tr>
<tr>
<td>Last Child</td>
<td>173</td>
<td>54.52</td>
<td>1.63</td>
</tr>
<tr>
<td>Only Child</td>
<td>130</td>
<td>55.46</td>
<td>0.59</td>
</tr>
<tr>
<td>Total</td>
<td>750</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 2.1:** One way Analysis of Variance for significant influence of birth order on emotional intelligence of secondary school students.

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>8182.828</td>
<td>3</td>
<td>2260.943</td>
<td>15.126</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>13005.626</td>
<td>746</td>
<td>433.029</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>21188.454</td>
<td>749</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2 above revealed that the first child influence emotional intelligence with a mean score of 59.45, middle child influence emotional intelligence with a mean score of 57.37, last child influence emotional intelligence with a mean score of 54.52 while only child influence emotional intelligence with a mean score of 55.46. Therefore, birth order influences emotional intelligence.

Table 2.1 shows that the computed F-value is 15.126, which is statistically significant at .000 level of alpha. Therefore, the null hypothesis which states that birth order (First child, Middle child, Last child and Only child) does not significantly influence emotional intelligence is rejected. In other words, there is significant influence of birth order on emotional intelligence among secondary school students.

**8. Discussion of Findings**

This study revealed that personality trait of conscientiousness, openness to experience, agreeableness, extraversion and neuroticism combined accounts for 66.2% variation in emotional intelligence. This implies that Conscientiousness, openness to experience, agreeableness, extraversion and neuroticism jointly significantly predict emotional intelligence among secondary school students. This finding is similar to that of Alafin, Odinaka, Okilo and Alabor (2008) stated among others that the joint personality traits of extraversion, openness to experience, conscientiousness, agreeableness, neuroticism and emotional intelligence of students relate positively. The study also revealed that each of the personality traits has individual significant contribution to emotional intelligence among secondary school students.

It was also revealed that there is significant influence of birth order on emotional intelligence among secondary school students. This indicates that the position of someone in the family can determine his/her level of emotional intelligence as it was revealed that the first born children have then highest level of emotional intelligence while the last born child has the lowest level of emotional intelligence. This finding agreed with that of Ologbo & Anini (2013) where they stated in their study that the first born children have a better emotional intelligence than others.

**9. Conclusion**

It was concluded that secondary school students with emotional intelligence is as a result of personality trait particularly conscientiousness personality trait. It was further concluded that students with poor emotional intelligence is as a result of their personality trait either, mostly neuroticism. It was concluded that all personality traits predicts emotional intelligence in different degrees. It was also concluded that first born children are
emotionally intelligent. Conclusively, birth order and personality trait can determine a students’ emotional intelligence.

10. Recommendations

In view of these, recommendations were made as:

- Students should be thought measures on how to develop their emotional intelligence both by parents and teachers in school.
- Emotional intelligence should be embedded into the secondary school curriculum either as a topic or as a subject.
- Parents should learn to treat all their children fairly as this may influence their emotional intelligence.
- Students should learn to have consciousness of their behaviours as this may help for a long time in determining their emotions.

References


Wehrli, S. (2008). *Personality on social network sites*: An application of the five factor model. Eth zurich sociology working papers, ETH Zurich.