INTRODUCTION

The word intelligence is as old as human existence and symbiotically associated with thinking skills that distinguish an individual from another and most importantly a predictor of life adjustment in the society. Anyone who scores low on the scale of cognitive intelligence otherwise known as intelligent quotient is taken to be a low achiever, dull, indolent stupid and grossly maladjusted. However, psychologists have identified many more areas of intelligence apart from the original one (cognitive intelligence), which include: fluid intelligence, crystallized intelligence, social intelligence, emotional intelligence, spiritual intelligence, financial intelligence etc. which are all indices of adjustment (Salovey and Mayer 1990; Goleman 1996; Zohar and Marshall 2000; Animasahun 2003; Jimoh 2007).

Adjustment refers to utilization of skills and experiences that facilitate personal integration into the society to which one belongs. Adjustment is what everybody needs to cope on with life. There is no perfect individual, but adjustment makes the difference for excellence among individuals. Only an adjusted person can be happy, hopeful and be productive in whatever environment he finds himself (Animasahun 2003).

Prisoners are the incarcerated individuals, awaiting trial or convicted for one crime or the other and confined in prison for a term as a punitive measure and for the purpose of remediation, reformation and rehabilitation. They are part of the larger society, and whenever they are released, they come back to the society. If they are not well adjusted and demonstrate skills for productivity while in custody, many of them may remain unadjusted, more complicated, dangerous and turn out to be hardened criminals on release (Animasahun 2002).

Parts of government efforts in the spirit of prison reforms include listening to religious messages and interacting with various religious organizations; exposure to various psychological and sociological training, the establishment of schools and vocational training department in prisons where inmates are trained in tailoring, fashion designing, kerosene stove making, drums
making, hand fan making, carpentry etc and all inmates are free to learn whichever vocation they are best suited for which they are expected to master and practice as a professional after incarceration.

Unfortunately, many prisoners remain undaunted, indifferent, unconcerned and unenthusiastic about the provisions. They only sleep, wake-up, eat, roam about the compound and return into their cells everyday. This is a typical sign of unadjustment which is totally inimical to the government reform programme.

Generally, adjustment is associated with the balance within the living systems (organs of the body, psychological and personality systems) and groups of individuals within the environment called social system, as they interact with the surrounding world called open system in an attempt to secure an immediate goal of equilibrium. Adjustment can also be seen as the manner in which a person meets his environment; vividly, it is how a person feels and behaves under new life situations and experiences; possibly, this is why Gate and Gersild (1993) defined adjustment as a continual processes by which a person varies his behaviour to produce a more harmonious relationship between himself and his environment. Bakare (1990) opined that adjustment connotes behaviours that enable a person to get along and be comfortable in his particular social settings; hence, such behaviour as nervousness, depression or withdrawing from the society are questions of adjustment. Adjustment is a function of adaptation to new circumstances, a new environment or a new condition (Encarta Premium 2006). In all the above, adjustment seems to connote conformity. It describes the adaptation of an organism to keep pace with changes in its environment. The extent to which a person conforms to the dictates of his environment would determine his level of happiness, peace and productivity.

Prison – adjustment would therefore embrace adaptation to prison environment, conforming to the dictates of the environment, active participation in programmes within the prison and conscious preparation for a more meaningful life after incarceration.

However, there are certain psychological factors that enhance individuals’ adjustment. Some of these are identified to be intelligence quotient, emotional intelligence and spiritual intelligence (Goleman 1998; Goltfredson 1998; Zohar and Marshall 2000; Zohar and Berman 2001; Akinboye et al. 2002; Adeyemo 2007, 2008; and Jimoh 2007).

Intelligence refers to mental abilities necessary for adaptation to, as well as shaping and selection of any environmental context (Sternberg 1996). However, intelligent quotient (IQ) otherwise called cognitive intelligence and which also includes attributes such as basic mental processes and higher order thinking such as reasoning, problem solving, and decision making (Sternberg 1986) is a score derived from a set of standardized test of intelligence, originally designed to detect persons of lower intelligence, and to detect children of lower intelligence in order to place them in special education programme. It is believed that an individual with an average intelligent quotient and above would be well adjusted in his environment. Emotional intelligence on the other hand evolved from Thorndike’s (1920) concept of ‘Social Intelligence’ which was later coined as Emotional intelligence by Salovey and Mayer (1990) and defined it as the subset of social intelligence that involves the ability to monitor one’s own and others’ feelings and emotions, to discriminate among them and to use information to guide one’s thinking and action. It involves the ability to perceive and express emotion, assimilate emotion in thought, understanding and reason with emotion, and regulate emotion in self and others (Mayer et al. 2000; Baron 1997 and Goleman 1995). However, spiritual intelligence, according to Zohar, and Marshall (2000) refers to the development of our longing and capacity for meaning, vision and value which facilitates a dialogue between reason and emotion, between mind and body, and which enables us to transcend the gap between self and others. Wigglesworth (2002) further conceptualized spiritual intelligence to be the ability to behave with compassion and wisdom while maintaining inner and outer peace (equanimity) regardless of the circumstance. Spiritual intelligence is therefore a necessary personal endowment which enables one to maintain both inner and outer peace and display love regardless of the circumstances whether stress or acute conflict. It could therefore help in conflict management and peaceful co-existence in the society.

In comparing the mentioned three areas of intelligence Zohar and Berman (2001) conceptualized that unlike the cognitive or logical intelligence (IQ) which is about rational, logical and rule-bound thinking, and emotional intelligence, (EQ) which is about associative, habit-bound, pattern-recognizing and emotive thinking;
spiritual intelligence (SQ) is about creative, insightful, rule-making, rule-breaking and transformative thinking which often manifests in a spiritual pathway that involves duty, nurturing, understanding, personal transformation, brotherhood, servant-leadership and the centre.

Every individual possesses each area of the identified intelligence in certain proportions and this enables individuals to live productively or otherwise in their environment (Jimoh 2007). Life represents a continuous chain of struggle for existence and survival, and perhaps the extent to which one possesses intelligence quotient (IQ), Emotional Intelligence (EQ) and Spiritual intelligence (SQ) determines individuals success in his environment. The three area of intelligence identified here have been found to be indices of adjustment (Animasahun 2002; Jimoh 2007).

Prison adjustment focuses attention on the extent to which a prisoner adapt and interact successfully with his new environment by conforming to the dictates of the new environment and demonstrates certain level of happiness, peace and productivity. Since prisoners are also human beings, who unfortunately, found themselves behind the bars, they also possess certain levels of intelligence quotient, emotional intelligence and spiritual intelligence which would help them to be well adjusted in prison.

Jimoh (2007) found a significant positive correlation when paired adjustment with spiritual intelligence and emotional intelligence but a significant negative relationship between adjustment and intelligent quotient as far as Teaching Profession is concerned. The same study revealed a joint contribution of 17% of Emotional intelligence, spiritual intelligence and intelligence quotient to adjustment to teaching profession, with Emotional intelligence contributing the highest, followed by spiritual intelligence, while intelligent quotient contributed very little. However in an earlier study, Goltfredson (1998) submitted that the trio of Intelligent quotient, Emotional Intelligence and spiritual Intelligence significantly determine job performance and income realization, which are ingredients of adjustment. The role of spiritual intelligence in adjustment was further corroborated by Zohar and Marhsall (2000). Goleman (1995, 1998) also stressed the importance of emotional intelligence in adjustment and life success. Chatterjee’s (1998) study further strengthened the role of emotional intelligence in helping people to get along in positive and proactive manner. Joshi (1997) also found that spiritual and emotional maturity are related to one another in the adjustment processes in such manner that increase in one is associated with increase in another and vice-versa. But in his own submission, Janeonseffasin (1997) emphasized that spiritual intelligence is more superior than emotional intelligence in adjustment processes.

Since prisoners are normal human beings, they also possess certain levels of intelligent quotient, emotional intelligence and spiritual intelligence, and since prison is a temporary abode for reformatory, remediation and proper rehabilitation, it is therefore very important to know which one among the variables correlate most with adjustment processes among prisoners to enhance the process of rehabilitation after incarceration.

**Purpose of Study**

The purpose of the present study was to investigate the extent to which intelligent quotient, emotional intelligence and spiritual intelligence would predict prison-adjustment among Nigerian prisoners.

**Research Questions**

The following three research questions were investigated in the study:

1. Is there any relationship among intelligent quotient, emotional intelligence, spiritual intelligence and prison adjustment?
2. What is the joint effect of intelligent quotient, emotional intelligence and spiritual intelligence on prison adjustment?
3. What are the relative effects of the independent variables (intelligent quotient, emotional intelligence and spiritual intelligence) on prison adjustment?

**METHODOLOGY**

**Research Design**

The study adopted survey research design using the expo-facto correlational type. The researcher was interested in knowing the predictive effect of the independent variables on the dependent variable without necessarily manipulating the independent variables.
Participants

The population of study comprised all prisoners in Nigeria prisons. However, multistage stratified sampling method was used in selecting the participants. Five zones were randomly selected from the nine zones in Nigeria based on balloting. One prison was selected from each of the zones, also based on simple balloting. One hundred prisoners were randomly selected through simple balloting from each of the five zones. Hence, 500 prisoners, made up of 458 males (91.6%) and 42 females (8.4%). Their ages ranged between 20 and 65 years, with a mean of 32.6 and standard deviation of 3.69 years.

Instrument

Four major instruments were used to collect data from the respondents. They include:

i. General Intelligence Test (GIT) (Akinboye, 2001) it consists of 10 items on mental ability test. Its process of validating shows that Cronbach $\alpha$ =0.81 and Guttman Split half reliability ($r$) =0.92.

ii. Emotional Intelligence Scale (EIS) (Schuttle et al. 1998) it has 33 items tapping the appraisal and expression of emotion in self and others as well as utilization of emotions in solving problems, using a five point scale ranging from 1 (strongly disagree) to 5 (strongly agree). The scale has demonstrated high internal consistency with Cronbach alpha ($\alpha$) =0.81-0.90, and a two week test-retest reliability coefficient ($r$) =0.78.

iii. Spiritual Intelligence Questionnaire (SIQ) (Zohar and Marshall, 2000). It has 31 items designed with a five point response format ranging from 1 (strongly disagree) to 5 (strongly agree) to assess individual’s spiritual intelligence endowment. A Cronbach $\alpha$ of 0.74 was found for its internal consistency and a test-retest reliability coefficient ($r$) =0.72.

iv. Prison Adjustment Scale (PAS). This was developed by the researcher to assess the level of adjustment of prisoners to the prison environment. It is a 21 item self-report instrument. Participants responded by indicating their level of agreement to each item based on five-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Examples of the items include: I am here to serve a punishment for the offence I committed; This is a learning and reformatory centre, I have decided to make the best use of my time; I participate actively in vocational trainings here; religious teachings here have affected my life positively; I hope to contribute better to the progress of my society when I regain my freedom etc. The scale has a Cronbach alpha ($\alpha$) =0.93 and the Guttman Split half reliability ($r$) =0.89 (Animasahun 2008).

Procedure

The four instruments were packaged together as a questionnaire with 5 sections where section A seeks demographic information, Section B accommodates General Intelligence Tests, Section C is on Emotional intelligence, Section D focused Spiritual Intelligence while section E centres on prison Adjustment scale. These were administered to the participants by the researcher after necessary permissions have been sought which gave the researcher access into the yards. The instruments were collected immediately after completion. The exercise lasted for five weeks with a week allocated for each prison. However, only one day in the week was used for each prison but no one could predict the very day permission would be granted to interact with the prisoners in the yards, possibly for security reasons.

Data Analysis

The collected data were analyzed with Pearson Product Moment Correlation (PPMC) to investigate relationships among variables, and multiple regression analysis to find out the joint and relative contributions of the three independent variables (Intelligent quotient, Emotional intelligence and spiritual intelligence) to the prediction of the dependent variable (Prison adjustment). Multiple regression has the competence for the pearson relationships.

RESULTS

The study investigated relationship between the independent variables (intelligent quotient, Emotional intelligence and Spiritual intelligence) and the dependent variable (prison adjustment). Descriptive statistics such as the mean ($x$) and Standard Deviation (SD) as well as Pearson Product Moment Correlation were applied to see if there would be any significant relationships...
between the predictor variables and the criterion. Multiple regression analysis was also used to determine the extent to which the predictor variables jointly as well as individually contributed to the prediction of the criterion variable. The results of the data analysis that provided answers to the three research questions are presented below.

The results of the data analysis on the question showing the mean, standard deviation and intercorrelation among the variables in the study are indicated on table 1.

**Research Question I**

The intercorrelation coefficient between the independent variables and the dependent variable revealed the following: Emotional intelligence with prison adjustment was positive and significant (r=0.95); spiritual intelligence and prison adjustment was positive and significant (r=0.83), also intelligent quotient with prison adjustment was positive and significant (r=0.79). Furthermore, the intercorrelation coefficient among the dependent variables showed that Emotional intelligence with spiritual intelligence was positive and significant (r=0.23), Emotional intelligence with intelligent quotient was positive and significant (r=0.14); spiritual intelligence with intelligence quotient was also positive and significant (r=0.27).

**Research Question II**

The results displayed on table 2 answers the second research question. Going by that result, the three independent variables (emotional intelligence, spiritual intelligence and intelligent quotient) jointly yielded a coefficient of multiple regression (R) of 0.98% and a multiple correlation square (R²) of 0.979, and finally an adjusted multiple correlation square (Adj R²) of 0.932.

This shows that 93.2% of the total variance in prison adjustment of participants is accounted for by the combination of the three variables. The table also indicated that analysis of variables of the multiple regression data produced an F-ratio value significant at 0.05 level (F= (3,499) =4591.051; P<0.05).

**Research Question III**

The results in table 3 provides answer to the third research question. The table shows the

<table>
<thead>
<tr>
<th>Variables</th>
<th>No.</th>
<th>X</th>
<th>SD</th>
<th>Prison adjustment</th>
<th>EQ</th>
<th>SQ</th>
<th>IQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prison Adjustment</td>
<td>500</td>
<td>85.18</td>
<td>16.35</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional Intelligence</td>
<td>500</td>
<td>135.28</td>
<td>23.02</td>
<td>0.95</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spiritual Intelligence</td>
<td>500</td>
<td>97.56</td>
<td>19.69</td>
<td>0.83</td>
<td>0.23</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Intelligent Quotient</td>
<td>500</td>
<td>102.18</td>
<td>20.52</td>
<td>0.79</td>
<td>0.14</td>
<td>0.27</td>
<td>1.00</td>
</tr>
</tbody>
</table>

| Table 1: Descriptive statistics and correlations among variables |

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>F=Ratio</th>
<th>Sig</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>120649.31</td>
<td>3</td>
<td>40216.437</td>
<td>4591.051</td>
<td>0.000</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>Residual</td>
<td>2592.884</td>
<td>494</td>
<td>8.760</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>123242.20</td>
<td>499</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 2: Multiple regression summary table showing the joint contribution of the independent variables to the outcome measure**

R² = 0.979
\[ R^2 = 0.979 \]
\[ R^2 \text{ Adjusted} = 0.932 \]
Std. Error = 2.960

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Unstandardized coefficient</th>
<th>Std. Error</th>
<th>Standardized coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>EQ</td>
<td>1.134</td>
<td>0.014</td>
<td>0.736</td>
</tr>
<tr>
<td>SQ</td>
<td>0.982</td>
<td>0.020</td>
<td>0.443</td>
</tr>
<tr>
<td>IQ</td>
<td>1.108</td>
<td>0.54</td>
<td>0.173</td>
</tr>
</tbody>
</table>

**Table 3: Relative contributions of the independent variables to the prediction of prison adjustment**
relative contributions of the independent variables to prison adjustment as evident in the beta weights as follow: Emotional intelligence ($\beta=0.736$, $t=80.473$; $P<0.05$); Spiritual intelligence ($\beta=0.443$, $t=48.560$; $P<0.05$) and intelligent quotient ($\beta=0.173$, $t=20.428$; $P<0.05$). It is evident that all the variables made significant relative contributions to the prediction of prison adjustment. Emotional intelligence is the most potent predictor, followed by spiritual intelligence while intelligence quotient made the least contribution.

DISCUSSION

The results obtained in table 1 revealed that emotional intelligence, spiritual intelligence and intelligence quotient are potent predictors of prison adjustment. This is evident in the kind of relationship that exists among all the variables. All the independent variables have significant positive correlation with the dependent variable and also among themselves. This result further strengthens the previous findings of Animasahun (2002) and Jimoh (2007) on the roles of the variables on adjustment. Goltfredson’s (1998) finding that emotional intelligence, spiritual intelligence and intelligent quotient could jointly determine job performance, which is an attribute of adjustment is also in support of the current finding.

The magnitude of the relationship among the independent variables (emotional intelligence, spiritual intelligence and intelligent quotient) in predicting prison adjustment is reflected in the values of coefficient of multiple regression (0.989), multiple R squared (0.979) and in multiple R square adjusted (0.932) as shown in table 2. It could therefore be interpreted that 93.2% of the total variance in prison adjustment is accounted for by the combination of emotional intelligence, spiritual intelligence and intelligent quotient. Also the F-ratio value of 4591.051, which is significant at 0.05 further attested to the fact that the predictive capacity of the independent variables was not as a result of any chance factor. The finding further corroborates the earlier finding of Jimoh (2007) that emotional intelligence, spiritual intelligence and intelligent quotient are potent predictors of adjustment.

The relative contributions of the independent variables to prison adjustment as revealed in table 3 shows that emotional intelligence is the most potent predictor of prison adjustment. It has a Beta weight of 0.73 and T-ratio of 80.473, followed by spiritual intelligence and finally intelligent quotient. This result further lend credence to the work of Jimoh (2007), Chatterjee (1998), Goleman (1995), Mayer and Salovey (1997), Adeyemo (2008), Goleman, Boyatzis and Mickey, (2002), Cook (2006) and Animasahun (2007) who have emphasized the value of Emotional intelligence in life success, process of adjustment and in the overall human endeavours.

The role of spiritual intelligence in prison adjustment as revealed in the table further strengthens the findings of Zohar and Marshall (2000), Zohar and Berman (2001), Joshi (1997) and finally the fact that intelligent quotient contributed the most little among the three variables further buttress the submission of (Goleman 1995) who stressed that emotional intelligence is more important than intelligent quotient (IQ); and the fact that intelligent (IQ), at least, contributed positively to prison adjustment further strengthens Goltfredson’s (1998) sub-mission that intelligence quotient is a factor to consider for adjustment. In all, the three independent variables contributed positively to prison adjustment among incarcerated individuals in Nigerian prisons.

IMPLICATION OF FINDINGS

The results of this study has generated a number of implications as far as prison administration in Nigeria is concerned. Prison is expected to be a remediation, reformatory and rehabilitation centre and not only for the punish-ment of offenders. Therefore the future of the inmates should be the utmost concern of the government and prison officials since most of these prisoners are coming back into the society after incarceration.

The relevance and importance of emotional intelligence to life adjustment is critically exemplified. An unadjusted individual would eventually manifest maladjusted behaviours. However, if the level of emotional intelligence of an individual is stimulated and further enhanced, the resultant effect would be better adjustment and improved level of productivity. This is essentially a missing gap in the management of prisoners in Nigeria. It calls for urgent attention.

In like manner, the spiritual development of prisoners is also very important as far as the outcome of this study is concerned. It is evident that religious organizations are allowed on regular basis to interact with prisoners, however, it has been discovered that
a lot of these prisoners are not sincere with their repentant posture after each message. Therefore, constant follow up, possibly on individual basis should be included in the efforts of the religious organizations to enforce genuineness and sincerity in post-message behaviour of prison inmates. This would further develop the religious level of inmates which would possibly contribute to their life adjustment both at pre and post incarceration.

On the whole, the study which was designed to find whether intelligent quotient, emotional intelligence and spiritual intelligence could predict prison adjustment has proved that all the independent variables can individually and jointly predict prison adjustment. However, emotional intelligence is the best, followed by spiritual intelligence, while intelligent quotient is the least predictor of the criterion.

CONCLUSION

This study has evidently proved that emotional intelligence and spiritual intelligence are far more important to adjustment processes and life success better than the intelligent quotient that has always been over-emphasized. Therefore, parents, teachers, leaders, business executives and anybody in the position of authority should always encourage, motivate and reinforce anybody who demonstrate high level of emotional intelligence and spiritual intelligence, because these are the real pointers to life success and overall adjustment.

RECOMMENDATION

Prisoners are part of the larger society, they are only incarcerated for a period of time for the purpose of reformatory, remediation and rehabilitation. Therefore, to foster prison adjustment as well as life adjustment in general, government should endeavor to employ Counselling Psychologists to train prisoners in the skills of emotional intelligence. Also, religious organizations should be allowed to preach to the prisoners as well as having close monitoring of their activities while in prison. All these, would help in the reformation that we expect, and sanity would be the order of the day in our society when prisoners regain their freedom.

REFERENCES


Jimoh MO 2007. Spiritual Intelligence, Emotional Intelligence and Intelligent Quotient as Predictors of Adjustment to Teaching Profession Among the Voluntary Teaching Corps Scheme Employees in Ogun State. M.Ed Dissertation, Unpublished. Ibadan: University of Ibadan.


