Emotional Value Judgment and Achievement in Basic Science

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Abstract

The study sought to examine emotional value judgment on student achievement in Basic Science. The study was carried out in Ijebu-North Local Government Area of Ogun State. Data were collected through valid questionnaire sent to five secondary schools within the local Government. One Hundred Junior Secondary II Students were used from the selected schools. Correlation, regression and statistical tools were used. With the research question used, it was discovered that the consideration of emotional disposition has noticeable positive impact on the improved academic performance of students’ in Basic Science. It was also discovered...
that there lies a strong and positive correlation between emotional judgment and achievement in Basic Science. This study is a step towards reducing psychological problem in Basic Science teaching and learning.

**Introduction**

According to Barlow J. and Maul D. (2000), emotion is central to human life in interaction with family and friends. Emotion is equally recognized as a critical interaction in the service economy. Emotional value is the economic value or monetary worth of feelings when customers positively experience product and service. And it is “emotional value, as much as quality or any other dimension of an organization worth that can make or break a business. Also included are friendly service culture, emotional competence as your organization service model, maximizing customer experience empathy, viewing complaints as emotional opportunities and using emotional connection to increase customer royalty.

Emotional value judgment is the science that sought to understand the piece of nature that is, how human being would be led seriously as tray if it did not take account of the feelings (and phatasies and reminiscences and the like) that shape our inner lives; the choice we make, the things we do, the way we behave, who we are (http/www.emotionaleducational.org.uk). a neuroscientist villainous Ramachenelran commented in the BBC Reith lecture (2003). Consciousness is a construct of unconscious process and complacency that rationality will somehow solve problem is unfounded.

Science is a process of searching for patterns, concept describing or explanation in the universe. In a sense, science is knowledge based and process based.

The broad aim of Science to Erinosho (2000) in the Science Curriculum include the development of Scientific skill and processes, cultivation of Scientific attitudes and appreciation of the social and ethical base of science.

Basic Science is one of the most important subjects in junior secondary school curriculum in Nigeria. It is offered as a unified or integrated subject at Junior Secondary school level, comprising Biology, Physics, Chemistry, Agriculture and Geography. However, at the senior secondary level the subjects are separated with a view to provide a carrier option. The objectives of each of these subjects, which are clearly stated in the curriculum, suggest the need to provide an effective learning.
Environment at the school Level; This will involve proper teacher pedagogy and ideas about how science material may be used so that active leaning is achieved while student at the same time enjoy the aid exploring the world around them (Oludipe, 2000),

The objective of Basic Science Curriculum which emphasizes learning by inquiry rather than rote learning of Scientific facts make it imperative for Science teachers to be dynamic and effective in teaching scientific concepts.

Presently, the performance of student in Basic Science is low compared to other subjects, (Olatoye and Afuwape 2004). Some of the problems associated with this low performance are student attitude and poor quality of teaching Basic Science in Nigeria, (Oludipe 2000).

Achievement would be serial to mean the ability to achieve the desired goal. Oshin (1991) opined that achievement related to a number of personality variable indication of good adjustment.

They also opined that sense of personal work, high academic achievement, and motivation are mostly responsible for achievement. When exposed to a course of instructions, every individual aims at achieving this is however dependent on a number of factors which could be inhibitive or facilitating factors.

Afuwape and Aanu (2010), inhibitive factors affecting achievement motivation in Basic Science includes poor instruction materials, inadequate Basic Science stimulation, cognitive deficits at certain levels of Basic Science development, difficulties in symbolic thinking, poor attitude leading to lack of interest and non-practicalizing with life objects related to the topic, value attached and alternative involved.

In consequence, the study sought to examine emotional value judgment on students’ achievement in Basic Science.

**Research question**

What is the relative influence of emotional value judgment on student Basic science Achievement?

- What is the relationship between emotional value judgment and Basic Science?
- Is there any significant difference between male and female student emotional value judgment in Basic science?
Is there any significant difference between older (14 years and above) and younger (13 years and below) emotional value judgment in Basic science?

Methodology

This study made use of questionnaire on emotional value judgment. Gender and age were examined as moderator variables. The sample covers 100 Junior Secondary school two student in ijebu-north local government area of Ogun State, Nigeria. Twenty students were chosen in each school using simple random sampling. The achievement test scores of student were collected. The instrument was validated with 0.71 reliability coefficient.

Administration of instrument

The instrument was taken to the students with discussion on the instrument and arrangement were completed with the school principal and teacher to assist in the monitoring of the questionnaire. The research was assisted by the teacher in their respective school to ensure that all the questionnaire were administered and collected back immediately by the researcher with gratitude to both the students, teachers and principal.

Scoring of instrument

The instrument was manually scored. The positive items were scored four through one while the reverse was the case for negative items. The total score earned by a student was taken to be directly proportional to the students’ level of attitude.

Data Analysis

The data generated was analyzed using t-test, person product Moment Correlation and Linear Regression.

Results

The sequence of presentation of result is in accordance with that of the research questions.
Table 1: Emotional value judgment as a predictor of student science achievement

<table>
<thead>
<tr>
<th></th>
<th>Sum of square</th>
<th>df</th>
<th>Mean square</th>
<th>F</th>
<th>sig</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>167.507</td>
<td>1</td>
<td>167.507</td>
<td>11.023</td>
<td>.001</td>
<td>Significant</td>
</tr>
<tr>
<td>Residual</td>
<td>1439.243</td>
<td>98</td>
<td>15.196</td>
<td></td>
<td></td>
<td>P&lt;0.05</td>
</tr>
<tr>
<td>Total</td>
<td>1656.750</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ R = 0.318 \]

R square = 0.101

Adjusted R square = 0.092

Standard Error = 3.898

In table 1 above, this independent variable (emotional value judgment) account for 10.1% of the total variance in student science achievements (R Square) =0.101, p<0.05. This percentage is significant. Therefore, emotional value judgment is an important factor to predict student science achievement.

Table 2 Relationship between emotional value judgment and student science achievement

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std deviation</th>
<th>N</th>
<th>R</th>
<th>P</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional value judgment</td>
<td>44.6800</td>
<td>16.47826</td>
<td>100</td>
<td>+0.314</td>
<td>0.001</td>
<td>Significant</td>
</tr>
<tr>
<td>Science achievement</td>
<td>10.7500</td>
<td>4.09082</td>
<td>100</td>
<td></td>
<td></td>
<td>P&lt;0.05</td>
</tr>
</tbody>
</table>

In table 2 above, there is positive significant relationship between emotional value judgment and student science achievement (r = +0.318, p < 0.05). The relationship is significant. Thus, the higher the emotional value judgment, the higher the student science achievement conversely, the lower the emotional value judgment, the lower the student achievement,
Table 3: comparison of Emotional Value Judgment, Science Achievement by Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>St. Error Mean</th>
<th>df</th>
<th>t</th>
<th>p</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Value</td>
<td>Male</td>
<td>57</td>
<td>43.1053</td>
<td>17.58925</td>
<td>2.32975</td>
<td>98</td>
<td>0.273</td>
<td>0.273</td>
</tr>
<tr>
<td>judgment</td>
<td>Female</td>
<td>43</td>
<td>46.7674</td>
<td>14.82250</td>
<td>2.26041</td>
<td>98</td>
<td>0.273</td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>Male</td>
<td>57</td>
<td>10.4211</td>
<td>4.33403</td>
<td>0.57406</td>
<td>98</td>
<td>0.357</td>
<td>0.357</td>
</tr>
<tr>
<td>achievemt</td>
<td>Female</td>
<td>53</td>
<td>11.1860</td>
<td>3.74964</td>
<td>0.57181</td>
<td>98</td>
<td>0.357</td>
<td></td>
</tr>
</tbody>
</table>

In table 3 above there is no significant difference between male and female students’ emotional value judgment, science achievement (t = -1.101, 1.101-0.925 respectively p>0.05).

Table 4 Comparison of emotional value judgment, science Achievement by age

<table>
<thead>
<tr>
<th>Age</th>
<th>N</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>St. Error Mean</th>
<th>df</th>
<th>t</th>
<th>p</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Value</td>
<td>14 yrs and above</td>
<td>54</td>
<td>41.2037</td>
<td>16.29606</td>
<td>2.21761</td>
<td>98</td>
<td>-2.337</td>
<td>0.021</td>
</tr>
<tr>
<td>judgment</td>
<td>13 yrs and below</td>
<td>46</td>
<td>48.7609</td>
<td>15.90833</td>
<td>2.34555</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>14 yrs and above</td>
<td>54</td>
<td>10.5370</td>
<td>4.27239</td>
<td>.58140</td>
<td>98</td>
<td>-0.5</td>
<td>0.575</td>
</tr>
<tr>
<td>achievemt</td>
<td>13 yrs and below</td>
<td>46</td>
<td>11.0000</td>
<td>3.89872</td>
<td>.57483</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In table 4.4 above, there is significant difference between older (14 yrs and above) and younger (13 yrs and below) student emotional value judgment students of 13 yrs and below have higher emotional value judgment than students of 14 yrs and above. However there is no significant difference between 13 yrs and below and 14 yrs and above student science achievement (t = -0.562,p>0.05).

**Discussion**

The finding of this work revealed a significant influence of emotional value judgment and achievement in Basic science in Nigeria. In table 4.1 above, this independent variable account for 10.1% of the total variance in student
science achievement (R square =0.101, p<0.05). This percentage is an important factor to predict student achievement in Basic science. The significant impact of the independent variable is not unexpected, considering the studies and assertion of (Fisher & Edward, 1998; Ahkanasy & Hooper, 1999; Adeyemo & Ogunyemi, 2003; Onabanjo & Famuyiwa, 2004; Erinosho, 2008). The result also corroborated Afuwape and Aanu (2010) assertion on the opinion effectiveness of teacher factor in carrying quality science teaching and learning.

Emotional value judgment is felt when a person express in her judgment an attitude. Makes a value judgment and her judgment is not a value judgment if no attitude is expressed.

Implication

The significant of emotional value judgment in student science achievement provides the empirical basis to suggest that practicing Basic science and Technology (Integrated Science) teacher should have great feeling for their student, environment, instructional material and the curriculum it is thus hoped that the effective practice of these will assist the teacher to facilitate the learning of science effectively.

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