FOSTERING ADOLESCENTS’ INTERPERSONAL BEHAVIOUR: AN EMPIRICAL ASSESSMENT OF ENHANCED THINKING SKILLS AND SOCIAL SKILLS TRAINING

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Abstract
The study investigated the effect of enhanced thinking skills (ETS) and social skill training (SST) in fostering interpersonal behaviour among Nigerian adolescents. A pre- and post-test experimental-control group design with a 3x2 factorial matrix was employed for the study. Gender which was used as a moderator variable was considered at 2 levels along with two (2) experimental and one (1) control groups. The study participants were one hundred and twenty (120) Senior Secondary 2 and 3 students randomly selected from 3 chosen secondary schools in Sagamu LGA of Ogun State. One standardized instrument was used in collecting data while analysis of covariance and t-test statistical methods were used to analyze the generated data. Both the treatment programmes were effective in fostering interpersonal behaviour in the adolescents but Enhanced Thinking Skill was found to be more effective than Social Skill Training. The study also revealed that both ETS and SST did better with females compared to males. Based on the findings, it was recommended that all caregivers must continuously update their skills on the use of ETS and SST to help our youngsters live a meaningful and fulfilled live.

Keywords: Adolescents, Enhanced Thinking Skills, Social Skills Training, Interpersonal Behaviour, Emotions and Gender

Introduction
Relationship, be it intra or inter, is a universal human experience. Emotions have been observed to play a major role in human interpersonal relationships. We experience and express emotions throughout our daily lives, and our emotional state at any given moments influences our perception, cognition, motivation, decision making and
interpersonal judgments (Erber, 1991; Zajonc & McIntosch, 1992; Forgas, 1993; Azeez, 2007). Our interpersonal likes and dislikes are determined by emotions. Any factor that affects emotions also affects attraction and relationship (Baron & Bryne, 1997; Ayodele, 2009).

However, relationship quality is a key indicator of adolescent psychosocial adjustment. The nature of interpersonal relationships among Nigerian adolescents especially in our educational institutions varied as the individual member themselves. Also, numerous other factors such as personality, attitudes and environmental factors affect the totality of one’s relationship in many ways. At one extreme, these relationships can be personal and positive. This is the case when individual interact meaningfully, share mutual friendship and respect the dignity of the other. At the other extreme, the relationship can be personal and negative. This happens when individual dislike one another, create tension and crisis for one another or try to humiliate the personality of one another (Limber, 2002, Rigby, 2002; Ayodele & Bello, 2008).

As adolescents grow, their relationships with selves and others become increasingly influential. This relationship not only provides foundation for later adult relationship, they also buffer adolescents from stress and lessen the risk of later emotional and behavioural problems. When teens behave right, think positively and are socially successful, their relationships are a source of well-being, pride and identity. Yet some teens have difficulties in getting along with others because of shyness, conflict or any other challenges.

Most conceptual models that address the provisions of friendship include separate dimensions that describe negative and positive features of the relationship (Furman, 1989 in Burk & Laursen, 2008). Negative relationship qualities encompass rivalry, betrayal, hostility, antagonism, and competition. Positive relationship qualities encompass companionship, intimacy, assistance, loyalty, caring, warmth, closeness and trust. There is considerable overlap in adolescents’ perceptions of these relationship qualities. Children report the greatest concurrence in perceptions of positive friendship qualities, whereas adolescents report the most congruence in perceptions of negative friendship qualities (Parker and Ash, 1993; Furman, 1996). Dyadic-level variation in shared relationship views has received less attention. Some have suggested that incongruent perceptions of a friendship reflect poor relationship skills and as such, may be an indicator of maladjustment (Buhrmester, 1990; Parker, Rubin, Price & DeRosier, 1995).
From psychological standpoint, effective and collaborative relationship within an environment/organization will bring about a stimulating environment in which love, trust, cooperation and collaboration can be built towards the betterment of every individual therein and the success of the environment. On the other hand, such environment will be characterized with tension, anxiety, frustration and at large an environment where individuals are made to internalize and exhibit violence, in order, to endanger themselves and other people’s peace and right.

Therefore, personal and social interactions play a critical role in an individual’s everyday life. Besides being a channel through which information and other resources flow, social interactions also evoke certain affective responses within individuals. Human beings are social animals; we live in a world of interdependence either at home, school, or at work. Lichtenste (2000) in Azeez (2008) posits that interactions lead to relationships, which create knowledge and develop intelligence, which in turn, gives meaning to the organization.

Social interactions are an integral part of individuals’ daily lives. Defined as “any situation involving two or more people in whom the behaviour of each person is in response to the behaviour of the other person” (Res & Wheeler, 1991). Social interactions have been found to affect both individual and organizational performance through the facilitation of information and resource exchange (Tichy, 1981; Ibarra, 1993). In addition, social interactions provide the social support needed for each individual’s physical and mental well-being (Pavot, Diener, & Fujita, 1990; Myers & Diener, 1995; Tschan, Semmer & Inversion, 2004). Social interactions have also been found to evoke certain affective responses within individuals (Watson, Clark, McLintyre & Hamaker, 1992; Azeez, 2007).

Enhanced Thinking Skills are nothing more than problem solving skills that result in reliable knowledge. Humans constantly process information. Enhanced thinking (critical thinking) is the practice of processing this information in the most skilful, accurate and rigorous manner possible, in such a way that it leads to the most reliable, logical and trustworthy conclusions, upon which one can make responsible decisions about one’s life, behaviour, and actions with full knowledge of assumptions and consequences of those decisions (Schafersman, 1991).

Enhanced Thinking Skill (EST) has been notably used in school improvement research in enhancing academic achievement and
accelerates the learning gains of the students (Bass & Perkins, 1984; Barba & Merchant, 1990; Freseman, 1990; Cotton, 2001). Also, there are studies and evaluation supporting the effectiveness of ETS in the workforce (Paul & Elder, 2002; Facione, Facione, & Giancarlo, 2000; Schafersman, 1991). Yet there is still no proper determination of its use in solving relational problems (especially among adolescents). Results from the first large-scale evaluation of the ETS cognitive behavioural programme in prisons were encouraging, with re-offending following ETS programmes being reduced by 14 percentage points for medium- to low-risk offenders, and 11 percentage points for medium- to high-risk offenders after two years (Friendship, Blud, Erikson, & Travers, 2002; Friendship, Blud, Erikson, Travers, & Thornton, 2003, Higgins et al. 2005). McDougall et al. (2009) found that ETS was effective in reducing impulsivity and changing the self-reported offending-related thinking of adult male prisoners.

Social skills are the interpersonal behaviours that contribute to the effectiveness of the individual as a part of a large group of individuals. As noted by MacDonald (1975) in Fashina (1990), “social skills is the ability to interact with others in given social context in specific ways that are socially acceptable or valued and at the same time personally beneficial, mutually beneficial or beneficial primarily to others”. This excludes exploitative, deceitful or aggressive skills which may be of individual benefit.

Gender is the moderating variable of the study. Though, gender does not consistently have a direct impact on outcome variables such as behavioural change (Adeyemo, 1999; Salami, 1999; Abosede, 2007), the factors that influence positive change in behaviour may vary across gender. It has been suggested that studies that focus solely on individual subjective reactions are, at best, incomplete if they do not include an examination of the contextual factors that shape these perceptions (Ostroff, 1993; Carless, 2004). Thus, this study believes that making a connection between genders and the independent variables will offer insights unlike those provided in the literature to date, specifically with regards to how the treatment packages may have a gender specific impact on inter and intra personal relationship skills among Nigerian Adolescents.

From the aforementioned, it is evident that Enhanced Thinking Skills (ETS) and Social Skills Training (SST) are based on the concept that emotions and behaviours result from cognitive processes; and that it is possible for human beings to modify such processes to achieve different ways of feeling and behaving. This study therefore, is interested in the
comparative effectiveness of Enhanced Thinking Skills and Social Skills Training in improving adolescents’ interpersonal relationship skills.

Statement of Problem
Our young adults today hardly could manage their personal and social interactions which have led them to engage in violent and uncoordinated behaviours such as students riots, vandalism, bullying, sexual abuse, obscene gesture, threatening e-mail and conversation, abuse, insult on mates and elderly ones etc. the manifestation of these and many more is even now reflecting in our homes and at work, in term of marital violence, wife battering, adult offenders, conflict at work, disobedient to constituted authority. However, considering the key roles of the youths in nation building and the fact that a change in behaviour positively is easily imbibed and faster at the formative age of every child; thus, there is the need to equip our adolescents with necessary techniques and skills that can foster good relationship (with self and others); therefore bringing about peaceful co-existence among the of the world.

This study, however, intends to investigate whether there is any comparative effect of Enhanced Thinking Skills and Social Skills Training in improving adolescents’ interpersonal relationships.

Research Hypotheses
1. There is no significant difference in the interpersonal behaviour scores of participants in the experimental groups and control group.
2. There is no significant difference in the interpersonal behaviour of participants managed with ETS and those treated with SST.

Research Design
This study adopted a pretest-posttest control group experimental design with a 3x2 factorial matrix. There were three rows consisting of two treatment strategies of Enhanced Thinking Skills (ETS) and Social Skills Training (SST) and the control group. There were also two columns reflecting the gender of the participants as either male or female. The researcher adopted a factorial design because of the fact that the design accomplishes in one experiment what otherwise might require two or more separate studies. Apart from this fact, the design also provides opportunity to study the interacting effect of the moderating variable.
Participants
The population of the study comprised of entire Senior Secondary School 2 and 3 students in the public secondary schools in Sagamu Local Government Area of Ogun State. A total of one hundred and twenty (120) students were randomly from three co-educational schools. Their age ranged between fourteen (14) and nineteen (19) years with a mean age of 16.8 years. They were randomly assigned to ETS, SST and control groups.

Instrumentation
An adapted form of the Multidimensional Relationship Questionnaire (MRQ) developed by Snell (1997) is adopted for use in this research. The original scale measures intimate relationship with sexual attraction while the adapted form was designed to measure psycho-sociological tendencies associated with interpersonal relationships. It is a sixty item scale, which consists of twelve positive relationship oriented subscales each containing five items as shown below:

- Relationship Esteem - items 1, 13, 25, 37, 49
- Relationship preoccupation - items 2, 14, 26, 38 50
- Internal Relationship Control - items 3, 15, 27, 39, 51
- Relationship Consciousness - items 4, 16, 28, 40, 52
- Relationship Motivation - items 5, 17, 29, 41, 53
- Relationship Anxiety - items 6, 18, 30, 42, 54
- Relationship Assertiveness - items 7, 19, 31, 43, 55
- Relationship Depression - items 8, 20, 32, 44, 56
- External Relationship Control - items 9, 21, 33, 45, 57
- Relationship Monitoring - items 10, 22, 34, 46, 58
- Fear of Relationship - items 11, 23, 35, 47, 59
- Relationship Satisfaction - items 12, 24, 36, 48, 60

Participants are to rate the extent at which each of the item applies to them on a 5 point Likert scaling format ranging from 1 (not at all characteristic of me) to 5 (very characteristic of me). The multidimensional relationship questionnaire (MRQ) has been used in investigation and reported estimates of reliability was 0.68 and found to be correlated with social association at .087 (Ayodele, 2009). Evidence of validity has been proven in studies. Ayodele (2009) reported a strong link between relational factors and social association; Fasasi & Oledikwa (2007) found high correlations between relational factors and psychological wellbeing.
Procedure
The process of sampling of participants, allocation of the participants to groups and the group of treatment programmes and control, followed strict process of randomization. Basically, procedure was carried out in three stages as follows:

(a) Pre-treatment stage involved a familiarization visit to the three selected schools, which focused on general introduction, establishment of rapport as well as administration of Multidimensional Relationship Questionnaire (MRQ) to all the SS2 and SS3 students. A simple random sampling procedure was used to select 120 participants. To ensure that every student have equal chance to being selected, the word ‘IN’ and ‘OUT’ were written on separate slips and placed in a plastic bowl. After thorough reshuffling, students were asked to pick the slips of paper, those with ‘IN’ were used for the study. The selection of student based on gender was also put into consideration while using the balloting method of selection. Also, the alphabets “A”, “B” and “C” were written on separate slips, which were used in assigning the participants to the two (2) treatment groups and one (1) control group. After the selection process, participants were briefed on the objective of the study and the benefits therein. The MRQ was administered to both the experimental and control groups.

(b) The treatment Session: The participants in the two experimental groups were subjected to eight (8) weeks of treatment programmes. The control group participated in pre and post-test sessions but was given a placebo training of study skills. The subjects in experimental group A were subjected to Enhanced Thinking Skills while that of group B were treated with Social Skills Training. Each of the two experiment groups had eight session of the therapy. Each session took 45 minutes; while groups C (the control group) had one session of 45 minutes guidance on study skills.

(c) Post-treatment Session: This is the evaluation stage. At the end of the eight (8) weeks training, both the experimental and control groups were subjected to post-test using the same MRQ to see result arising from training.
Method of Analysis
Analysis of covariance (ANCOVA) and t-test statistics were adopted to analyze data generated and to test the hypothesis at 0.05 significant level. Analysis of covariance (ANCOVA) was utilized to investigate the joint effect of the independent variables on the dependent variable.

Results
Table 1: Unadjusted X-means and unadjusted Y-means of participants; performance based on treatment (rows) and gender (columns)

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Male (N=60)</th>
<th>Female (N=60)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>X-X</td>
<td>Y-X</td>
</tr>
<tr>
<td>Enhanced Thinking</td>
<td>40</td>
<td>38.53</td>
<td>27.47</td>
</tr>
<tr>
<td>Skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Skills Training</td>
<td>40</td>
<td>32.04</td>
<td>19.29</td>
</tr>
<tr>
<td>Control group</td>
<td>40</td>
<td>29.26</td>
<td>12.71</td>
</tr>
</tbody>
</table>

Table 2: Analysis of covariance (ANCOVA) on effectiveness of treatment on participants’ performance.

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>Df</th>
<th>MS</th>
<th>F-ratio</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rows</td>
<td>266.321</td>
<td>2</td>
<td>133.161</td>
<td>21.56</td>
<td>&lt; .05</td>
</tr>
<tr>
<td>Columns</td>
<td>18.085</td>
<td>1</td>
<td>18.085</td>
<td>3.23</td>
<td>S*</td>
</tr>
<tr>
<td>Interaction</td>
<td>24.928</td>
<td>2</td>
<td>12.464</td>
<td>3.18</td>
<td>S*</td>
</tr>
<tr>
<td>Within</td>
<td>1847.039</td>
<td>114</td>
<td>16.202</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*S = significant at <.05

The details presented in Tables 1 and 2 showed that participants in the two experimental groups performed significantly better on measure of interpersonal behaviour than their counterparts in the control group. The rows show the effects of enhanced thinking skills and social skills training programmes while the columns indicate the effect of gender levels on participants’ interpersonal behaviour. Table 1 indicated that there was a differential improvement in the interpersonal behaviour scores between male and female subjects treated with ETS, SST and the control group. However, using the unadjusted X means and Y means showed that male participants in ETS group exhibited better and enhanced improved interpersonal behaviour than their female counterpart in the same group while reverse was the case with participants in SST group.
Table 2, on the other hand, specifically revealed that the treatment programmes has statistically significant effects on participants' interpersonal behaviour (\(F_{(2,114)} = 21.56; P < .05\)). The gender levels of the participants had zero significant impacts on the treatment gain (\(F_{(2,114)} = 3.23, P < .05\)). Also, there were zero significant interaction effects. Therefore, the hypothesis that stated no significant difference in interpersonal behaviour scores of participants in the experimental groups and control group cannot be sustained.

Table 3: Analysis of covariance of participants scores in interpersonal behaviour (Experimental Group only).

<table>
<thead>
<tr>
<th>Sources</th>
<th>SS</th>
<th>Df</th>
<th>MS</th>
<th>F. value</th>
<th>F. critical</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rows</td>
<td>198.101</td>
<td>1</td>
<td>198.101</td>
<td>10.174</td>
<td>3.96</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>Columns</td>
<td>20.993</td>
<td>1</td>
<td>20.993</td>
<td>4.005</td>
<td>S*</td>
<td></td>
</tr>
<tr>
<td>Interaction</td>
<td>23.075</td>
<td>1</td>
<td>23.075</td>
<td>4.20</td>
<td>S*</td>
<td></td>
</tr>
<tr>
<td>Within</td>
<td>989.807</td>
<td>76</td>
<td>13.023</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*S = Significant @t <.05

Table 4: Rows and columns of adjusted Y-means compared.

<table>
<thead>
<tr>
<th></th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhanced thinking Skills</td>
<td>(a) 21.03</td>
<td>(c) 23.79</td>
</tr>
<tr>
<td>Social Skills Training</td>
<td>(b) 15.65</td>
<td>(d) 18.47</td>
</tr>
</tbody>
</table>

The results presented in Tables 3 and 4 indicated that Enhanced Thinking Skills (ETS) and Social Skills (SS) treatment programmes are both effective in fostering interpersonal behaviour among Nigerian adolescents. The results further reveal that there is a significant difference in the interpersonal behaviour of adolescents managed with ETS and those treated with SS (\(F_{(1,76)} = 10.174, P < .05\)).

Fostering of interpersonal behaviour among Nigerian adolescents was more pronounced in ETS group for both male and female compared to their counterparts in SS group as shown in the adjusted Y-mean in Table 4. Thus, the earlier stated hypothesis of no significant difference in the interpersonal behaviour of adolescents managed with ETS and those treated with SS was rejected. It is worth to note that both ETS and SST did better with the females compares to males.
Discussion
The outcome of this study has established the effectiveness of Enhanced Thinking Skills (ETS) and Social Skills Training in fostering interpersonal behaviour among Nigerian adolescents, evidenced by enhancement in interpersonal behaviour of the participants in the treated groups compared to those in the control group. This indicates not only the effectiveness of the two treatment strategies but also the utilization of treatment gains by the participants as well. The present findings lend good credence from the findings and outcomes of various researchers who exposed their subjects to either ETS or SST. ETS and SST have been used successfully in managing behaviour problems such as shyness, communication problems (Akinade, 1988, Aremu, 1998, Ojekunle, 1999, Olanrewaju, 2001); while ETS particularly has been used in integrating offenders and criminals back into the main stream of the society (Friendship, Blud, Erikson, & Travers, 2002; Friendship, Blud, Erikson, Travers, & Thornton, 2003, Higgins et al.2005).

Another significant finding of this study is the significant difference between the interpersonal behaviour scores of ETS and SST participants. The effectiveness is in favour of ETS as shown in Table 4 above (ETS=21.03 and 23.79; SST= 15.65 and 18.47). This difference could be based on the premise that human interpersonal relationship is embedded in thought and emotions. As explained by Ayodele (2009), Azeez (2007), Baron and Bryne (1997), Erber (1991), Forgas (1993), Zajonc and McIntosh (1992); we all experience and express emotions throughout our daily lives, and our emotional thought at any given moments influences our perceptions, cognition, motivation, decision making and interpersonal judgments. Thus, our interpersonal likes and dislikes are determined by emotions. It can be understood why ETS would work better than SST in fostering adolescents’ interpersonal behaviour.

One other significant finding of the study was the positive influence of the training programmes on female interpersonal behaviour as compared to their male counterparts. The gender difference accounted for cannot be empirically explained in this study. This came as surprise as the previous findings of Abosed (2007), Adeyemo (1999) and Salami (1999) claimed that gender does not consistently have direct impact on outcome variables such as behavioural change.
Conclusion and Implication of findings
The outcome of this study based on the result obtained has confirmed the effectiveness of Enhanced Thinking Skill (ETS) and Social Skill Training (SST) in fostering interpersonal behaviour among young adults (adolescents) in Nigeria. From the findings, it means that violent and uncoordinated behaviours such as riots, vandalism, bullying, obscene gestures, threatening e-mail and conversation, etc that has digging deep into our social fabrics by the youth can be managed or curtained.

The findings have effectively demonstrated that the treatment packages could be used as veritable tools in equipping adolescents with necessary skills that can foster good relationship with selves and others, therefore, bringing about better future and peaceful co-existence among the people of the world.

It is therefore necessary for all caregivers especially school counsellors, counselling psychologists to update their knowledge and skills on the use of some of these treatment packages that can help adolescents live a meaningful and fulfilled life. If actively done it would generally bring about adequate self-acceptance, objective self-evaluation, improved psychological well-being, enhanced relationship with self and others, social competence, as well as rational and positive co-existence among people of the world.

References
Fostering adolescents’ interpersonal behaviour: an empirical assessment of enhanced thinking skills and social skills training

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