The Student’s Adjustment Inventory (SAI) as a Cultural Tool: To Measure the Levels of Adjustment of Secondary Students in Cameroon

Professor Tanyi Ebangha Maureen¹, Egbe Gwendoline Arrika²
¹Head of Department Curriculum and Evaluation, University of Yaounde I - Cameroon
²Researcher Ministry of Scientific Research and Innovation, Yaounde Cameroon
³Ph. D Student University of Buea

Abstract: - SAI is an instrument designed to measure the level to which a child adjust to the school norms. It contains 57 psychological constructs. The purpose of this study is to measure the level of adjustment amongst the South West and the Centre regions secondary students in Cameroon. Norms were established for the adjusted and maladjusted. Sex and Age were amongst the variables considered. A sample of 3461 forms two and three students aged 12-18 was drawn from the two regions. Three research questions and 6 hypotheses guided the study. Mean and standard deviation and t-test were used for the analysis. The following results among others were obtained:

1. General norms for the maladjusted and adjusted students ranged from 11.47 to 36.23 and 9.08 to 20.21 while that for the whole test was 87.07 and 39.31 respectively.
2. The norms for the male and female students were found to be 69.17 and 69.44 respectively.
3. Those for the early and late adolescents stood at 69.47 and 69.04 respectively
4. It was also found that there were no significant sex and age difference in students’ adjustment as measured by the SAI.

Based on the results, the implications and recommendations was that SAI be used to identify and measure the incidence of mal-adjustment among students in Cameroon.

Key words: standardization, adjustment, maladjustment, inventory, cultural tool.

I. INTRODUCTION

Background of the Study

The school is a social institution associated with a variety of roles which are obligations it strives to fulfil. Such as the education and training of students in the cognitive, affective and psychomotor behaviours. However, there exist limitations to the attainment of these goals by the school and individual students. The student who does not learn and is held back in grade or drops out of school or fails to meet the school criteria is not adjusted. Maladjustment therefore, refers to the total conditions of an individual who is unable to adapt adequately to his environment. The school and the home are examples of specific environments.

Maladjusted children are ineffective in their immediate environment of home, school or other social settings. Depending on the temperament and personal experiences of the children, their emotional and behavioural difficulties may be manifested in extremely diversified manners ranging from the polarized conditions of being intensely introvert to extremely extrovert behaviours. The following constitutes characteristics of maladjusted children: withdrawal, depression or self injuries, obsessions, school rejection, drug and substance abuse, destructive uncooperative and violent behaviours. The common characteristics of these children in their different aspects of life are as follows:

Family: The following manifestation may reflect their relationship with other members of the families:

1. Being rebellious against parents;
2. staying out late or even absconding from home;
3. siblings rivalry,
4. being indifferent to concerns from and needs of their families

School: The following behaviour reflects their relationship with teachers and fellow pupils:

1. Disregarding school disciplines resulting in frequent violation of school regulations despite counseling being provided, e.g.: fighting and / or disrupting classes to the extent that teaching cannot be conducted.
2. Influencing other classmates to follow him in breaking school regulations.
3. Openly challenging school authorities and insulting teachers.
4. Very often, being apathetic towards school activities.
5. Their wayward behaviour may not be accepted by their fellow pupils or teachers thus creating conflicts in schools.

Learning

More often than not, maladjusted children are academically less able owing to the following disadvantages:
1. Weak concentration and short attention span resulting in fickleness with job at hand, thus hamper their learning in both knowledge and skills.

2. Long term experience of school failure does not only impede their interest and motivation in academic work but also diminishes their confidence in other aspects, particularly in new areas of learning.

3. The vicious cycle between repeated experience of failure and children’s low self concept and confidence hinders them in further academic achievement.

4. Their academic attainment may not be comparable to their intelligence and social maturity. This discrepancy causes reluctance in accepting teaching material which is lower in level than that of pupils of their same age.

5. Their non-academic ability and achievement may not be appreciated in their school environment.

6. Both of the children and their families have no positive expectation on academic or school achievement, thus lowering children’s motivation to learn.

**Social aspect**

Presenting unacceptable behaviours such as:

1. Being weak in self-control, some of them exhibit impulsive behaviour such as temper tantrums, use of foul language, pilfering or vandalism. In the other extreme, some may be withdrawn, indifferent and isolating themselves without any contact with others.

2. Involve with undesirable peers resulting in truancy and / or delinquent behaviour.

3. Have low awareness of social norms and conventions resulting in wayward behaviours.

In Cameroon schools, rules and regulations are strictly enforced. As such, some students especially the over-aged, may feel greatly dehumanized to the extent that they engage in acts of rebellion, including assault on the teachers and fellow students. In adjustment, the two crucial factors are the individual and the environment. Raju et al (2007) did a study on the adjustment problems of school students and found that, in the study of the individual, the considerations are the heredity and biological factors, the psychological factors, and the quality of socialization given to him or her. Whereas, the environment includes all the social factors. Every individual from the time he or she steps out of the family and goes to school makes to a long series of adjustments between the whole unique personality and the environment. The ardent desire of each boy and girl to become an individual person having a healthy physique, a growing intellectual ability, a greater degree of emotional poise and increased participation in social groups, such characteristics enhance one’s personality. Even parents, teachers and other significant members of the society to which person belong will encourage this desire.

The school is the major socialization institution for any child. It is the child’s first Contract with the world outside the house. For nearly 12 years a child spends 5 to 7 hours a Day in the school. School is one the most important foundation pillars on which the child’s Personality develops. Children learn proficiencies in various abilities like, learning process and home work, social communications, handling emotion, and the management of day to day interactions at home and school. In reality, the growing child is dependent on the immediate environment i.e. the house and the school to meet his growth needs. The concern therefore extends to how the school facilities can be enhanced and improved to meet the growth needs of the children.

Several studies have been reported in the area of social, educational, health and emotional adjustment of school students of both sexes. Some studies try to relate adjustment with variables like intelligence, achievement, age, sex, socio-economic status, needs, anxiety, and security. Student’s reaction to frustration has also been studied. A few studies focused on the nature, causes, and extent of indiscipline among students. The relation between indiscipline and variables like achievement, participation in co-curricular activities etc., were also examined. A review of the studies carried out in the field of adjustment as reported in the three surveys of educational research edited by Buch (1991) reveals that no systematic attempt has yet been made to develop a tool for the assessment of adjustment problems of school students.

Satia (1984) did a study using 92 teachers, 600 students and 5 principals to verify the extent of students’ attrition in 31 secondary schools in Cameroon. He found that institutional climate, teachers’ and students’ conflicts were among those factors causing attrition in Cameroon secondary schools. Parents no longer care about the relationship between students and school staff especially teachers. The parents are more concerned about the students’ academics rather than behavioural achievement. Consequently, the low ability students tend to become truants, aggressive or drop out from schools. Also, the very high ability work and so become under-achievers.

Raju and Khaja (2007) reported that adjustment of school going adolescents is primarily dependent on the school variables like the class in which they are studying, the medium of instruction present in the school and the type of the management of the school and reasoned out that parental education and occupation of the adolescent students also significantly influences their adjustment. Positive friendship quality was the only friendship variable that predicted adjustment (Demir and Urberg; 2004). Hetherington (2006) reported that adolescents in stepfamilies have more adjustment problems than their counterparts in non-divorced families.

In Cameroon like most other African countries, the learning environment is generally inadequate and
inappropriate. In Cameroon there are relatively not enough school guidance counsellors or psychologists to handle those students termed ‘troublesome’ or psychologically maladjusted. The bulk of the work of helping these students is left to the teachers, who to a greater extent are not qualified to handle such students. It is worth noting that though a lot of techniques have been mentioned as being appropriate for addressing maladjustment among students, there is paucity of psychological tools for the school personnel (guidance counsellors, psychologists and social workers) to effectively apply these techniques in the handling of maladjusted students.

**Statement of the Problem**

There is evidence of maladjustive behaviours among students in schools in Cameroon. This is why the Cameroon government in recognition of this problem decreed on the 22nd of March 1973, the establishment of the Borstal institutes to modify the undesirable behaviours of students.

Another evidence is that, in 1975 ‘L’Education au Cameroon’ revealed that more than 55% of the maladjusted secondary school students dropped-out from school. Provision was also made for the training of school counsellors and psychologists to assist students with problems in schools. This is evident with the many higher teachers training colleges that have been created in the country.

A major problem for these counsellors and psychologists is the lack of relevant psychological tools for the identification and measurement of the maladjusted students in schools. Tanyi (1988) developed and validated a students’ adjustment inventory (SAI) to measure school adjustment.

**Research Objectives**

The study was aimed at;

1. Standardizing an adjustment inventory to measure personal, academic, social and emotional problems of students who appear not to be adjusting well in school.

**Research Questions**

The following three research questions were formulated to aid the study:

1. What are the norms of the entire subjects on the SAI in respect to the adjusted and maladjusted students?
2. What are the sex norms of the maladjusted students of the study on SAI?
3. What are the norms of the maladjusted students on the SAI with respect to age?

**Hypotheses**

The following null hypotheses were formulated out of the research questions above, which guided the study:

1. The coefficients obtained by inter-correlation of the subscales of SAI and the whole test will not be significant, (p<.05).
2. The stability coefficient of the students adjustment inventory will not be significant (p<.05).
3. The construct validity of SAI as determined by testing analysis of the adjusted and maladjusted students’ performance will not be significant, (p<.05).
4. The internal consistency coefficient of the SAI will not be significant (p<.05).
5. The concurrent validity of the SAI will not be significant, (p<.05).
6. There will be no significant sex difference in students adjustment as measured by the SAI.
7. There will be no significant age difference in students’ adjustment as measured by the SAI.
8. There will be no significant difference in the mean scores of the adjusted and maladjusted students on SAI (p<.05).

**Scope of the Study**

The scope is restricted to standardization procedures. For SAI, such procedures would include the establishments of norms, reliability, and validity using samples of maladjusted students in Cameroon secondary schools. Artisans, home economics and craft centres, teacher training colleges and seminaries are not included in this study.

**Significance of the Study**

It is important to mention the usefulness of this instrument in school counselling and psychological services.

The principals, teachers and counsellor may wrongly identify and measure the child’s behaviour and consequently administer wrong treatment to the child dropping out from school. To avoid this situation, a descriptive objective tool like the Adjustment Inventory may be used to afford a vivid picture of the child’s characteristics. In this case, such diagnosis will not depend on the raters subjective impression but on results of an objective diagnostic instrument.

Also, this instrument will provide a set standard for observing students behaviour in the schools. Thus this will lead to proper classification and labelling of students’ behaviour that often directly may influence their positive life patterns since the students’ Adjustment Inventory is a diagnostic instrument.

From experience, one may confirm that individual assessment and predictions of the educational progress of children through behavioural identification form part of the ardent problems that school psychologists and other staff have faced. Therefore the instrument, Students’ Adjustment Inventory is expected to facilitate such identifications.

The SAI would be a working instrument to the counsellor for the evaluation of adjustment behaviour. It
Defining School Adjustment

Although the debate regarding the definition of school adjustment is ongoing, the concept of school adjustment has been broadened in recent years to consider outcomes beyond academic performance (Ladd, 1989, 1996; Libbey, 2004; Perry & Weinstein, 1998). Libbey (2004) provides a thorough review of the conceptualizations of attachment, bonding, connectedness, and engagement to school utilized in research over the past couple of decades. In an effort to incorporate as much of the existing theory and empirical evidence as possible (yet stay within the limits of what is possible with secondary data analysis), three aspects of school adjustment were considered— the individual’s level of school bonding, friend’s school bonds, (association with peers who are bonded to school), and avoidance of school-related misbehavior (e.g., cheating, skipping school).

The extent to which a student likes or enjoys school and is attached to teachers is a very commonly considered aspect of school adjustment (Eccles, Early, Frasier, Belansky, & McCarthy, 1997; Goodenow & Espin, 1993; Hawkins, Guo, Hill, Battin-Pearson, & Abbott, 2001; Ladd, 1989; Samdal, Nutbeam, Wold, & Kannas, 1998; Simons-Morton & Crump, 2003; Simons-Morton, Crump, Haynie, & Saylor, 1999) and is often referred to as school bonding. Friend’s school bonding is considered because the social development model (Catalano, et al., 2004; Hawkins & Weis, 1985) and peer cluster theory (Oetting & Beauvais, 1987) clearly indicate the importance of bonding to peers and indicate that bonding to peers with prosocial attitudes, including positive attitudes toward school, supports prosocial behaviors. Finally, school related misbehavior or disruptive behavior is a construct that also has been used to conceptualize a student’s overall level of school adjustment (Ryan & Patrick, 2001).

II. REVIEW OF RELATED LITERATURE

The review of literature for this article is organised into the following sub-headings: empirical review, theoretical framework, description and critical evaluation of some adjustment inventories used and their field application, conceptual attributes of reliability, and validity of some non-cognitive instruments used in Africa and other continents, Age and Sex as factors of adjustment.

Empirical review

There is a consensus among some other investigations that maladjustment is a phenomenon that needs attention because of its adverse effect on the main school objective that is, the effective education and training of an individual in the cognitive, affective and psychomotor behaviours. The ultimate may lead to an individual not being able to be self-actualised. Thus the relationship between these variables mentioned above is inverse.

To uphold the status quo of the favourable existence of schools, relatively few researchers sought to plough the ground in varied ways. Parental unavailability, including lack of warmth, hostility, and rejection, has been linked to adolescents’ internalizing problems such as depression, loneliness, distress, and somatic complaints, and to externalizing problems such as substance abuse, aggressiveness, and delinquent behavior (Conger, et al 1994; Campo & Rohner, 1992; Crockenberg & Leerkes, 2003; Rubin et al 2004).

Difficulties experienced by adolescents vary with age, sex and culture. Var et al (2011) while exploring the impact of self-esteem on adolescent problems and their relationship with socio personal characteristics; found significant differences between rural and urban adolescents in family, school, social and personal.

Ochoa et al (2007) analyzed the role of different interrelated variables in the family and school contexts in relation to adjustment problems at school during adolescence and found direct association between quality of communication with father and teacher’s expectations of the student with the adolescent’s involvement in violent behavior at school.

Asiabi and O’Neal (2007) reported that heightened food insecurity was associated with increased parental emotional distress, poor quality of parenting, and increased adjustment problems. Increased parental emotional distress was associated with poor quality of parenting and with higher levels of adjustment problems; and better quality of parenting was associated with lower levels of adjustment problems.

Shiferaw et al (2006) reported that the burden of psychosocial concerns, including depressive symptoms, suicidal thoughts and suicide attempts are high and living with both biological parents and good parent-teen connectedness is related to better psychosocial health. The purpose of education is to produce an able and competent cadre of individuals who can become, at later years, an effective human resource for the nation’s growth.

Edward and Epstein (1987) did a study on ‘social and personal adjustment of elementary and secondary students.’ They examined school adjustment problems of 1,092 students aged 6-17 years. A behaviour checklist was analysed to identify dimensions of adjustment as compared with their counterparts. Truants were more anxious than the non-truants. But the groups did not differ with respect to risk-taking behaviour and health dimension of adjustment. This result goes to concretise the researcher’s view of standardizing an Adjustment Inventory for the identification and measurement of the level of adjustment among students (adjusted /maladjusted). This study is relevant because quite
often, teachers especially in Cameroon often label students, this makes the students to respond negatively. The above study also shows the relationship between home-school adjustment and this is why Adler (1927) explained maladjustment in terms of the child’s family position.

Adding to the above research, some other variables on adjustment to school has incorporated home- background and even socio-economic status (SES). Although the latter was not included in this study, Tanyi (1988) had earlier investigated socio-economic variable, and it was found that it was not a factor in school adjustment. The above study goes to highlight the notion that adjustment is a continuous process that is why mention is often made in this study of some of the researchers on home to school adjustment. Children move to school with some of their home behaviours and the school in turn may accommodate or reject some of them. Maladaptive behaviour set in if there is no moderation from the child, or the school. That is there must be some reconciliation between the two, so that each gets to the stage of equilibrium. usually, the children suffer in such a situation.

Theoretical Framework

The purpose of this section is to bring to focus the theoretical framework of the concept of ‘Adjustment’ both in the broadest sense and in relation to school in the dimension of personal, academic, social and emotional states. Personality theories are also discussed in relation to adjustment. The diverse theories of personality have different ways of addressing development. In this study, three of the key proponents of the theories of personality are Sigmund Freud (1949), Adler (1927) and Bandura and Walters (1977).

Freud’s psychoanalytic Theory of Personality and the Development of maladjustment

In explaining how the personality of an individual evolves, Freud posited that the human being has three personality structures namely; the ID, the ego and the Super ego and he passes through certain stages of psychosexual development. In each of the stages, Freud emphasizes on how the interaction of the child with parents, and the significant others in the society could bring about a ‘healthy’ and ‘unhealthy’ personality. Thus the early experiences play an important role in the process of future development of the child. A number of cases of maladjustment have been reported by psychoanalysts in which controlled infantile sex life has been found cause of maladjustment. Early childhood experiences are very important to understand maladjustment.

Freud (1949) postulated that there exists three structures of personality, the ID, the ego and the super ego. There is the constant interaction of the forces of (a ) the powerful unconscious instinctive impulses, (b) the ego and the super ego. The powerful instinctive desire when emerges from unconsciousness is blocked by the ego and the super ego and this blocking causes conflict. The conflict leads to subterfuge by which the urge seeks satisfaction. The neurosis is the outward manifestation of this conflict and can be understood by interpreting these forces.

According to Freud, in Uba (1987) the child passes through oral, anal, phallic, latency and genital stages and in each of this stage; a very loose care by the parents or other relatives will bring about a maladjusted individual. For example, the child who is overfed during the anal stage grows up to be loose, boisterous, easily deceived and not independent. Lack of self-control and derives sexual gratification in such maladaptive behaviours such as chewing, eating, talking, smoking and drinking etc.

On the other hand, a child in a strict home will be stingy, neurotic, aggressive, stubborn and noisy. These unhealthy behaviours will be carried to the school environment as exists today. Students engage in fighting each other as results of his/her aggressiveness. Most students cannot answer questions in class because of shyness, some others engage in continuous noise making in class. Others also involve in absenteeism and examination malpractices following the behaviour they bring from their homes and inability to suppress themselves because of their weak ego.

Adler’s psychoanalytic Theory of Personality and the Development of maladjustment

In explaining the problem of maladjustment, Adler (a humanist) focuses on ordinal positions in the family. Thus the individual’s perception of his role in the family as well as how he views the rewards and punishment within it, gradually compares him with whoever is closest to him in his family. Depending on the individual’s perception on his position, he may feel inadequate and encouraged to form rivalries or allegiances which influence his attitudes.

The social learning Theory of Albert Bandura and Walters and the development of Maladjustment

The theory hinges on learning through imitation and observation. Most members of the society exhibit many maladaptive behaviour that includes fighting, quarrelling, drunkenness, favouritism etc. These actions are directly and indirectly copied by the students who see the adult personality as their role model.

III. RESEARCH METHODOLOGY

The instrument used, a 53-item Students’ Adjustment Inventory (SAI) has four subscales of Personal 10 items, Academic 22 items, Social 14 items and Emotional 7 items. The items were keyed to reflect maladjustive behaviours in both positive and negative direction to check response set. The researcher used the likert scale which was later reduced to a four-point scale of ‘Strongly agree, agree, strongly disagree and disagree for easy computation. An item that described a good behaviour (negative item) was scored two points while that which described a bad behaviour was scored one point. Hand manipulation of the inventory was also used which
provided the opportunity for school staff to conveniently administer the instrument.

A pilot testing was done in Nsukka. St. Therese’s college and Urban Girls secondary school were selected through purposive sampling technique. The sample constituted both adjusted and maladjusted 126 boys and girls in classes two and three. The results obtained revealed that the reliability of the SAI was found by the test-retest method. The responses of the sample were used to calculate reliability coefficient. The Pearson Moment Statistics was used to obtain a coefficient of 0.85. Construct validity was done through the administration of SAI to two groups of students maladjusted and adjusted. A t-test value of 47.43 was obtained.

Research Design

The research design of the main study, which is the standardization of the SAI, was carried out using a descriptive research design

Description of Study Area

This study covers both the South-west and Centre regions of the Republic of Cameroon. It includes divisional headquarters, urban and rural towns of these regions.

The Population

The population for this study was all the secondary school students in the south-west and the centre regions of the Republic of Cameroon. However, the target population was forms two and three students who were between the ages of 12 and 18 at the time of this study identified by the staff directly concerned with them. The choice of age and form was based on the fact that the age, falls between the pre-adolescent and late adolescent age. This is the age during which most students undergo a lot of psychological, biological, sociological changes. Also form one is a transitional form, therefore adjustment problems may not be of any significance. While form 4 is not included in the target population because of Cameroon’s Educational system- the Francophone students in form one are graduating students as such there may not be enough time for therapy if they are identified as needing help.

The Sample and Sampling Technique

The Sample of the main study was 2,266 students drawn from 112 schools, comprising of (1,260 males, 1,006 females) and (1,283 early and 983 late adolescents).

The following sampling techniques were used;

- Sample from both regions were used for the reliability of the instrument by the test-retest method.

Determination of Validity of the SAI

The researcher determined the content, the construct and the concurrent validities of the SAI. The content validity was pertinent so as to ensure that the instrument’s constituent items provided the widest possible coverage on the SAI. The SAI was calculated using the k-R 20 formula to establish internal consistency coefficients of SAI value of 0.72 was realized.

Method of Data Analysis

In the analysis of the research questions and hypotheses that guided the study, both the descriptive and inferential statistics were used.

Means and standard deviations were used to describe the sex and age, maladjusted and adjusted of the subjects.

The correlation statistics were employed to establish the stability, the internal consistency, and concurrent and construct coefficients of SAI.

A t-test statistics was also used to find out whether the SAI discriminated between the maladjusted and the adjusted.

IV. RESULTS

The results of the research questions and will be presented in the preceding tables;

Research Question 1

What are the norms of the entire subjects on the SAI in respect to the adjusted and maladjusted students?

Research question 1 was answered using tables 1 and 2

Table 1 General norms for the maladjusted students

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Number</th>
<th>Mean</th>
<th>S.D</th>
</tr>
</thead>
<tbody>
<tr>
<td>PASS</td>
<td>2,266</td>
<td>16.39</td>
<td>1.54</td>
</tr>
<tr>
<td>AASS</td>
<td>2,266</td>
<td>36.23</td>
<td>2.47</td>
</tr>
<tr>
<td>SASS</td>
<td>2,266</td>
<td>22.98</td>
<td>1.85</td>
</tr>
<tr>
<td>EASS</td>
<td>2,266</td>
<td>11.47</td>
<td>1.25</td>
</tr>
<tr>
<td>Whole test</td>
<td>2,266</td>
<td>87.07</td>
<td>4.64</td>
</tr>
</tbody>
</table>

Evidence from table 1 above shows the mean for the whole test of the maladjusted subjects was 87.07 with S.D. of 4.64. The result further indicated that maladjusted students showed highest level of adjustment for the AASS with a mean score of 36.23 and S.D. of 2.47. This was followed by SASS, PASS and the EASS with means of 1.85, 1.54 and 1.25 respectively.

Key to Abbreviations

PASS - Personal Adjustment Subscale
AASS - Academic Adjustment Subscale
SASS  - Social Adjustment Subscale
EASS  - Emotional Adjustment Subscale

Table 2 General norms for the Adjusted students

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Number</th>
<th>Mean</th>
<th>S.D</th>
</tr>
</thead>
<tbody>
<tr>
<td>PASS</td>
<td>1,195</td>
<td>13.43</td>
<td>1.92</td>
</tr>
<tr>
<td>AASS</td>
<td>1,195</td>
<td>20.21</td>
<td>3.30</td>
</tr>
<tr>
<td>SASS</td>
<td>1,195</td>
<td>18.60</td>
<td>2.23</td>
</tr>
<tr>
<td>EASS</td>
<td>1,195</td>
<td>9.08</td>
<td>1.39</td>
</tr>
<tr>
<td>Whole test</td>
<td>1,195</td>
<td>39.31</td>
<td>0.12</td>
</tr>
</tbody>
</table>

Table 2 above reveals that the mean for the whole test of the adjusted subjects stood at 39.31 with S.D. of 0.12. The result further indicated that the adjusted students showed highest level of adjustment for the AASS with a mean score of 20.21 and S.D. of 3.30. The lowest level of adjustment was shown for EASS with a mean of 9.08 and S.D. of 1.39.

Research Question 2

What are the sex norms of the maladjusted students of the study on SAI?

Table 3 Norms for the Maladjusted male respondents

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Number</th>
<th>Mean</th>
<th>S.D</th>
</tr>
</thead>
<tbody>
<tr>
<td>PASS</td>
<td>1,259</td>
<td>13.42</td>
<td>2.02</td>
</tr>
<tr>
<td>AASS</td>
<td>1,259</td>
<td>28.13</td>
<td>3.24</td>
</tr>
<tr>
<td>SASS</td>
<td>1,259</td>
<td>18.55</td>
<td>2.18</td>
</tr>
<tr>
<td>EASS</td>
<td>1,259</td>
<td>9.06</td>
<td>1.36</td>
</tr>
<tr>
<td>Whole test</td>
<td>1,259</td>
<td>69.17</td>
<td>0.16</td>
</tr>
</tbody>
</table>

Number of cases missing = 1

From the table, the mean scores for the respondents ranged from 9.06 with SD of 1.36 for the EASS to 28.13 with S.D. of 3.24 for the AASS However, the mean score for the whole test was found to be 69.17 with SD of 0.16. The results shows that male sample had highest level of maladjustment for the AASS and the lowest maladjustment for EASS.

Table 4 Norms for the Maladjusted female respondents

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Number</th>
<th>Mean</th>
<th>S.D</th>
</tr>
</thead>
<tbody>
<tr>
<td>PASS</td>
<td>998</td>
<td>13.43</td>
<td>1.19</td>
</tr>
<tr>
<td>AASS</td>
<td>998</td>
<td>28.28</td>
<td>3.35</td>
</tr>
<tr>
<td>SASS</td>
<td>998</td>
<td>18.64</td>
<td>2.27</td>
</tr>
<tr>
<td>EASS</td>
<td>998</td>
<td>9.08</td>
<td>1.42</td>
</tr>
<tr>
<td>Whole test</td>
<td>998</td>
<td>69.44</td>
<td>1.76</td>
</tr>
</tbody>
</table>

Number of cases missing = 8

The total female mean score for the whole test as shown on table 4 was 69.44 with S.D. of 1.76. The lowest mean score of 9.08 with SD of 1.42 was recorded for EASS while the highest mean scores of 28.28 with SD of 3.35 apportioned to AASS The result therefore shows that the female subjects scored highest level of maladjustment, for the AASS and the least for the EASS.

Research Question 3

What are the age Norms of the maladjusted sample of the SAI?

Table 5 Norms for the Maladjusted subjects of Ages 12-15 (Early Adolescents)

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Number</th>
<th>Mean</th>
<th>S.D</th>
</tr>
</thead>
<tbody>
<tr>
<td>PASS</td>
<td>1,278</td>
<td>13.57</td>
<td>1.98</td>
</tr>
<tr>
<td>AASS</td>
<td>1,278</td>
<td>28.10</td>
<td>3.34</td>
</tr>
<tr>
<td>SASS</td>
<td>1,278</td>
<td>18.58</td>
<td>2.18</td>
</tr>
<tr>
<td>EASS</td>
<td>1,278</td>
<td>9.22</td>
<td>1.42</td>
</tr>
<tr>
<td>Whole test</td>
<td>1,278</td>
<td>69.47</td>
<td>5.76</td>
</tr>
</tbody>
</table>

Number of cases missing = 5

From table 5 above the mean for the whole test of the subjects aged between 12 and 15 years was 69.47 with SD of 5.76 The result shows that the early adolescents indicated highest levels of maladjustment for the AASS followed by SASS, PASS and EASS respectively.

Table 6 Norms for the Adjusted subjects of Ages 16-18 (late Adolescents)

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Number</th>
<th>Mean</th>
<th>S.D</th>
</tr>
</thead>
<tbody>
<tr>
<td>PASS</td>
<td>978</td>
<td>13.24</td>
<td>1.83</td>
</tr>
<tr>
<td>AASS</td>
<td>978</td>
<td>28.31</td>
<td>3.22</td>
</tr>
<tr>
<td>SASS</td>
<td>978</td>
<td>18.60</td>
<td>2.27</td>
</tr>
<tr>
<td>EASS</td>
<td>978</td>
<td>8.87</td>
<td>1.34</td>
</tr>
<tr>
<td>Whole test</td>
<td>978</td>
<td>69.04</td>
<td>5.78</td>
</tr>
</tbody>
</table>

Number of cases missing = 8

Table 6 above shows the mean from the whole test of the subjects aged between 16 and 18 years to be 69.04 with SD of 5.78 the result shows that late adolescent’s students indicated highest levels of maladjustment for the AASS and followed by the Social, Personal and Emotional Adjustment Subscales.

After the analysis of the data collected for the standardization of the SAI, the following results were obtained:

1. The general norms for the Subscales of SAI for the maladjusted ranged from 11.84 to 26.238 while that for the whole test was 87.07.
2. For the adjusted students, the general norms for the Subscales of SAI ranged from 9.08 to 20.21, while that for the whole test was 39.31.
3. The norms for the male and female students were found to be 69.17 and 69.44 respectively.
4. The early and the late adolescents stood at 69.47 and 69.04 respectively.
5. The stability coefficient of the SAI was 0.88 while its internal consistency was 0.72.
6. The construct validity of the SAI determined by comparison method through the use of t-test was found significant at 0.05 levels.
7. Furthermore, the coefficients arising from the inter-correlation of the subscales and the whole test were significant at 0.05 levels.
8. The concurrent validity coefficient of SAI derived from its inter-correlation with the SPI was found significant.
9. It was also found that there were no significant age and sex differences in students’ Adjustment as measured by the SAI.

V. DISCUSSION

In the present study, research question 1 and hypothesis 8 will be discussed together. Evidence shows that secondary students have academic and social adjustment problems, hence the highest mean score. These problems include truancy, absenteeism from classes, return home before closing hours, school drop-out, they do not interact with their mates or participate in group activities and bully their mates. It was also found that personal and emotional adjustment problems assumed the lowest scores. Such as assertiveness, introverts depressive, angry dispositions and so on. The results is consistent and agrees with that of the pilot study and that of Bell (1962) on Emotionality scale where the mean score for very poor adjusted students scored almost half above than the very good adjusted students. The only difference in this is that Bell used freshmen and sophomores instead of secondary school students.

Research question 2 and hypothesis 6 are related. Analysis of the data relating to sex norms reveal that the male students exhibit highest level of maladjustment for academic achievement, social, personal and emotional adjustment. The same results were obtained for female students. This is contrary to a study conducted by Sembers (1960) which found out that girls were socially adjusted than boys.

Research question 3 and hypothesis 7 were related and as such treated together. Both categories of adolescents show maladjustment for the academic, social, personal and emotional adjustment subscales. There was no significant difference in the mean scores of the early and late adolescents in the school setting. On the personal and emotional subscales, the early adolescents were found to be more maladjusted than the late adolescents as indicated by their mean scores. Teachers are to encourage and provide security for these adolescents.

Hypothesis 1 and 4 dwell on the measure of internal consistency. The value of the internal consistency coefficient of the SAI was high (0.72) and can be attributed to; reduced sampling error and item construction approach.

The resulting stability coefficient of the SAI obtained by retest method over a period of three weeks was found to be 0.88 high enough to permit the conclusion that, there is a high positive relationship between the initial and the retest scores of the respondents on the SAI. Hence the SAI is consistent and stable in measuring Adjustment among students.

VI. RECOMMENDATIONS

Based on the results, the following recommendations are made:
1. More trained and qualified guidance counsellors, psychologists and social workers should be posted to schools to help the maladjusted students in the school system. School staff should bear in mind that students have academic, social, personal and emotional maladjustment at various levels.
2. Also the researcher recommended the use of psychological tests such as SAI in the curriculum for the training of guidance counsellors by the different ministries concerned such as Higher Education. This will equip them with a mastery of administration an interpretation of psychological instruments
3. The investigator also recommends the use of the SAI for extensive research projects in Cameroon with the view to identifying and measuring incidence of maladjustment among the student population in all the regions and also other countries.

VII. CONCLUSION

The need for the standardization of the SAI was conceived by the researcher due to the unavailability and or few psychological tests existing in Cameroon. The study also sought to establish the reliability (stability and internal consistency coefficients), the validity (content, concurrent and construct) and the norms for the SAI. Finally using an empirical analysis to select the appropriate items for the inventory, a fifty-three item SAI, sub-scaled into four component parts emerged. Therefore one can conclude by saying that;

Change is universal as is the change during adolescence period. This period brings change in every sense both biologically and psychosocially which bring out a new individual. Dodge and Pettit (2003) have seen that some adolescents are able to deal with these changes successfully, but some may not be able to move ahead because of many reasons like parenting, school environment, peer support and individual factors.

REFERENCES


