Gender Response in Fine Arts Subject at the Junior Secondary Level; Using the Keller’s ARCS Motivational Model

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Abstract
This paper was generated from the findings from my Doctoral project research; titled “Effects of Keller’s Motivational Model on Instructional Outcomes in Fine Art at Junior Secondary School (JSS) Level”. This research unveiled issues of gender differences to the fine art subject at JSS level. In this study three different motivational levels of instructions was developed namely: Motivationally Minimized Instruction (MMI), Motivationally Enhanced Instruction (MEI) and Motivationally Saturated Instruction (MSI). Two methods of Instructions were employed namely:
Conventional Lesson Plan (CLP) and the ARCS Lesson Plan, acronym for ARCS is (A) Attention, (R) Relevance, (C) Confidence and (S) Satisfaction. The results show that there was significant difference in the fine art class in the Junior Secondary School (JSS) in the area of Relevance and also significant difference when taught with Motivationally Saturated Instruction (MSI). Finally, the finding show the gender responds to the Keller’s ARCS motivational strategies model.

Key words: Motivation, Keller’s ARCS, Instruction, Lesson Plan.

Introduction

Fine Arts as a learning subject in Nigeria at the Junior Secondary School level has been experiencing unprecedented slow pace when compared with subjects in the relative creative areas like Music, Literature, Architecture and Film. Fine arts has no clear definition and always been seen as natural gift or a talent and also regarded as craft; and non-academic in its entirety as a field of study.

Education in Art commenced in Nigeria about 1926; long enough to take a solid footing in the affairs of aesthetic and creative concerns. Before now Art in Nigeria and in fact the whole of Africa was purely for religious purposes and for a few, hence it earned a derogatory status as primitive and fetish. Fine art was formerly introduced into the education curriculum by Chief Aina Onabolu who subsequently recommended the hiring of one Mr. Kenneth C. Murray from England who taught art and craft around Nigeria. As time went Art Centers and schools evolved like the Ulli Beier’s Mbari school of Art (1961) at Ibadan, and another the Oshogbo Art school called the “Mbari Mbayo.” There was also the Zaria Art School, etc. The trend Art took changed and developed with regional styles and identity; like the Nsukka School identified with the “Uli” style.

However, participants and practitioners are at a higher level but mostly non-formally educated in fine arts. This almost justified the reason for the derogatory identification of art as talent, craft and masculine. There was a need to upgrade the profession, and was observed that various governments and individual bodies have tried to upgrade and make it popular at the school level through its inclusion into the school curriculum. Even where the initial art teachers started teaching in schools it was observed that with these entire attempt the non-specialist art teachers who had managed to keep it up had no
place for refreshing their ideas and techniques (Talabi, 1999). The Art schools mentioned above later produced graduate teachers who needed opportunities to keep pace with new discoveries in materials and techniques. For the reason of this paper all the historical trends of art movements in Nigeria have no records or mentioned the active involvement of females in art. If any, it was not prominent. This could be borne out of tradition or culture of the society at that time. However, there is no record where female were mentioned. Interest in the fine art class has always been experienced by the males. The low interest by females could be researched into. Many variables could culminate to be reasons like methodology and Instructional styles or motivational strategies, these are what this paper portents to discuss. For this reason effort was made to develop and improve the quantity and especially the quality of instruction in the fine arts subject in the bid of:

1. Improving the teaching methods.
2. Encourage and motivate both genders of students.

These input devices stated above did not still meet the expected skill in fine art with both genders. In support of this there has not been any observable progress in art as it is in the Sciences. This was adduced from the fact that Science was fully accepted as a pedagogical area by the Education Ministries while Fine Art was not. More so, there has not been any major or minor concern in recent times from research or any form of investigation to promote the attention of Government or the society. The major concern in the field of fine art has dominantly been in the area of classroom management and infrastructure (Talabi). Other areas that need investigation which will be addressed in this paper as main focus is now encompassing in this subject of both genders as in other areas of study. Knowing the genesis of art and its function as core art, and their religious/spiritual inclination, one could want to conclude that as at old times the focus was on paintings and sculpture (Carving) which by tradition are limited to the male gender. For this reason this paper will be looking at the study of art at the JSS level to include both genders and more so the application of the motivational strategies in identifying any differences in gender responds in our contemporary times.

**General Problems in Fine Art**

With many years of teaching art in various academic levels accumulating to about 30 years, I think without any doubt that students achievement and interest in the fine art subject has steadily declining generally, especially with
the female students which is almost non-existent. A peep into the comments made by the Chief examiner of previous years WAEC reports indicated clearly that there was lack of motivation as observed from the number that sat for the examination and the scores recorded. Personal investigation into this report is supported by observing that most secondary schools do not study fine art even when the subject is clearly stated on the time table. It all means that either the teacher is not there or was anticipated or had left, hence the fine art periods became a period for something else. In some cases were the teachers are available, the school could not provide a special space as fine art studio/ workshop for students to work effectively. Other problems are the lack of materials, which was also stated in the chief examiners report (WAEC, 2002). The WAEC report made by the Chief examiner for some years (2000-2005) indicates that there was generally poor achievement in the fine art subject after first few years in secondary schools, also, a high rate of attrition from the fine art class immediately after the JSS 2 class. Much emphasis on the situation was attributed to lack of materials which could have resulted to lack of motivation. More so, due to lack of low turnout of graduate fine art teachers and as a vocation many are self employed; the result is lack of enough teachers becomes a big problem to solve. However, even when teachers are insufficient, incentives and much motivation is a prime factor for a course of this nature which is mostly hands-on and pro-independent; the essence of art to living is not well articulated.

The development of art programme is considered a creative endeavour. It requires the education planners to take into account factors like:

1. The learning situation related to objectives
2. Tools and techniques (method/ materials)
3. Instructional strategies.

In order to achieve these, learners could select from a range of topics suitable for practicing independently. Hence the teacher should provide a limited number of specific stimuli strong enough to motivate expressions where the students have the full freedom to select those aspects of ideas that interest them. Just as controlled freedom appears desirable in learning selection of a subject for expression so also it’s often recommended in choosing media/materials and tools (Gaiskell, 1975).
In the provision of motivation, some factors relating to co-ordination are taken into consideration.

1. Cognitive and visual learning needs are to be encouraged with special help for students who cannot work strictly on their own, especially females.

2. Many other activities should be included and experimented for motivational purposes especially knowing that students learn differently and also understanding gender differences.

**Gender Problems in Fine Art**

Careful observation reveals that in the history of Fine art in Nigeria till very recent times the male gender has dominated the central position; there had not been any mention of female active participation in artistic activities. This is clearly observed when names are mentioned. Even where it was mentioned like Mrs Omagie Ikponwonsa, of the Zaria school together with Uche Okeke, Yusuf Grillo and Wangboje to mention a few; she was described as “faded away” from the art world. Oguibe (1964) opined that women artists are few, and in fact are mere objects of artistic interest. After the arrival of Mr. Kenneth Murray and his sojourn across Nigeria teaching fine art, there was no record of any female in his collection of students taught or mentored. It is also noteworthy that when art centers were established like the Oshogbo center Mbari Mbayo, and in 1961 at Ibadan the Mbari by Ulli Beier with his wife Georgina Beier no record of Georgina Beier’s introducing the art of painting and Sculpture to any level of the school system hence only few females were only trained in crafts like tie and dye. Hence the only record of a female which could be meaningfully connected to this school of Art is Nike Davies Okundaye who after acquiring the knowledge and skill in the Batik art from her step mother; after her mother died when she was six years old.

She caught the skill and continued in this “craft” and most probably groomed up in the Oshogbo art movement. Others female artists which were indistinguishable from their male counterparts are Etso Ugboadaga-Ngu, Ndidi-Dike and Ego Uche-Okeke, fell into the copy-cat mold. However, Sokari Douglas Camp breaks the mold whose depictions of women reflected individualistic and Kalabari identity. Ben Enwonwu viewed women as mythic people. Women were looked as archetype of motherhood or as put symbol of fertility and continuity. A lot of artists viewed women involvement in art as anti-feminist and hence for the special area preserved of men,
tending towards male chauvinism. Women are looked as milk maid, dancers, etc which put them as shallow and arid in imagination without dept to cope with artistic production. In fact the image of Western women introduced during the colonial period affected the image of the African woman. Women are depicted as ornamental, elitist, and fashion-conscious, while the village rural women are depicted as idyllic and generic (Oguibe, 1964). Women artists are decidedly not “feminist” in their depiction of women. According to Elsy Leuzinger (1972) Africans create their art largely as an instrument by which to make contact with supernatural forces… it is the expression of their religion. In Cameroun a carver should receive a girl for a mask. Girls are regarded as desirable workers for the fields. The feminine gender was not involved in hunting; which these works of art symbolically draw inspiration from.

Art therefore for a very long time has been a man’s work. Recent involvement has not still made any impact especially at the very formative level related to this paper. This trend has not only haunted the fine art profession but also some of the Sciences like Engineering and its allied professions involving serious field work. All these at the lower level are termed as vocations. Our society clearly distinguishes them according to gender as they relate to the amount of time, energy and exposure. Hence there has been little or no encouragement or motivation of the female gender towards some of these areas of learning.

**Purpose of the Study**

The purpose of this study is to appraise findings of the effectiveness of Keller’s motivational strategy on gender responds in the fine art subject at the JSS level.

**Scope**

From the main thesis where this paper has been generated from, many tests were carried out to test different instructional levels and instructional methods. For the sake of this paper only relevant tests will be indicated where significant difference was observed to justify the gender responds using the Keller’s ARCS motivational strategies.
Limitation

This study is limited to two big community Secondary schools in Obio/Akpo local government area of Rivers State of Nigeria, big enough to represent a good, acceptable and valid population for this kind of study.

Objective

At the end of the study one will be able to determine which gender responded to any of the given criteria used to test from the Keller’s ARCS motivational strategies.

Keller’s ARCS motivational Strategies

The Keller’s ARCS model of motivational strategies is the one used in this study. The theoretical frame work is based on an aggregation of motivational concept and theories according to their shares and discriminative attributes. It is systemic model for designing motivating Instruction. Keller’s ARCS model is built on the premise that motivation is never static but dynamic, that is, an individual can show a high level of motivation at the beginning of a task but loses interest along the line and vice versa. But the ARCS model can monitor the fluctuating levels of motivation and make adjustment.

The model has been successfully tested for validity and reliability many times and in a variety of contexts including:


2. Effectiveness of motivationally adaptive computer-assisted instruction on the dynamic aspects of motivation (Song H. Song John M-Keller, 1987).

3 Motivational strategies via technology and their effects on performance, satisfaction and self-directedness of United States Military Academy (USMA) cadets (Long 1994).


Keller’s ARCS model while upholding the principle of high sustainability of its components (ARCS) relates conveniently with the Expectancy value
theory, which state that Motivation = Perceived Probability of Success x Connection of Success and Reward x Value of obtaining goal. As stated, for motivation to be high and sustained in expectancy – value, theory, Expectancy, Instrumentality and value that represents perceived probability of success, connection of success and reward and value of obtaining goal respectively must be high, so also in Keller’s ARCS model, Keller suggests that the ARCS conditions occur as a sequential process (Driscoll, 1993, 312), so that all components are adequately in operation.

Keller’s ARCS model also relates with Gagne’s events of instruction in several ways, especially in:

1. Gaining attention
2. Inform learners of objective
3. Confidence
4. Present material for instruction etc. and other motivation theories viz, Behaviourism, Humanism and Cognitism.

Methodology

Research design:
The study is experimental. Two types of design are employed:

1. A randomize pre-test- post test- control group experimental design.
2. Design- correlation design to test hypothesis.

Population for study
The population consists of students from a co-educational school in the Obio-Akpo local government area, Rivers State. The students are between the ages of 12years to 18years old. They are 90 in number

Sample/sampling techniques
Participants are 90, 45girls and 45boys. They were selected by simple random sampling technique from the 3 arms of JSS II class. Each of the boys and girls group was divided into 3 groups, have 15 students each group of boys and girls which equal to 30 participants in each of the three groups.
Instrument/procedure

In this study, two types of instruments were employed

2. Response Instruments.

The stimulus Instrument represented the content of instruction containing Keller’s ARCS strategic components and the Conventional Lesson Plan (CLP), which was taught by the teacher. In all, 6 lessons were taught.

The response instruments represent tests designed to measure the effect of treatments on the dependent variables. These are the objective questions/fill in and the Likert-Type scale items were adopted.

The test instruments are sequenced as follows:

1. Audience analysis
   - To test initial instructional level of knowledge of participants
2. Continuing motivation questions
   - To test their new instructional level
3. Correlation coefficient
   - To test the new relationship and differences
4. Instructional Material Motivation Survey (IMMS) Keller 87
   - To test the effect of the instructional materials/methods

Research Questions Findings

*Is there any significant difference between the mean of scores by boys and girls students in post test attention by students taught by Keller’s ARCS model and the CLP?*

The data and statistics collected for the research question indicated that:

1. In the t-test to show significant difference between the mean scores made in all the instructions in post test Attention by boys taught with ARCS and CLP; it shows that the calculated t-value is less than the critical-t, hence no significant difference; therefore Ho is accepted. But in the t-test to show the significant difference between
the means of scores made by boys and girls in post test attention by boys and girls taught by Keller’s ARCS model and the CLP, the t-test show that the calculated t-value is less than the critical t, hence no significant difference, hence Ho is accepted. It will be noteworthy to say at this juncture that in most of the findings from the various learning types and the different levels of motivation significant difference was only observed between the means of scores made by boys than in female students in post test for Relevance taught by the Keller’s ARCs model and the CLP when the instruction level was Saturated in Boys. Could this be deduced from their endurance level?

Table 1a: t-test for attitude in the Motivationally Saturated Instruction between boys taught with the ARCS model and boys taught with the CLP.

<table>
<thead>
<tr>
<th>(MSI)Boys</th>
<th>N</th>
<th>X</th>
<th>SD</th>
<th>t-value</th>
<th>DF</th>
<th>Critical-t</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCS</td>
<td>11</td>
<td>4.36</td>
<td>.505</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLP</td>
<td>12</td>
<td>3.58</td>
<td>1.38</td>
<td>2.39</td>
<td>21</td>
<td>2.080</td>
<td>Reject Ho</td>
</tr>
</tbody>
</table>

In the table above the t-test shows that the calculated t-value is higher than the critical t, hence there is significant difference, therefore Ho is rejected.

**Summary:** It shows that with ARCS Strategies motivation took place.

Table 1b: t-test for attitude in the motivationally Saturated instruction between girls taught with the ARCS model and girls taught with the CLP.

<table>
<thead>
<tr>
<th>(MSI)Girls</th>
<th>N</th>
<th>X</th>
<th>SD</th>
<th>t-value</th>
<th>DF</th>
<th>Critical-t</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCS</td>
<td>14</td>
<td>4.00</td>
<td>1.17</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLP</td>
<td>13</td>
<td>4.07</td>
<td>1.38</td>
<td>.16</td>
<td>25</td>
<td>2.060</td>
<td>Accept Ho</td>
</tr>
</tbody>
</table>

In the above table the t-test shows no Significant difference in attitude between girls taught with the motivationally saturated instruction of ARCS model and the CLP.
Summary: It shows that instruction took place, since their attitude changed for good.

Table 2: t-test to show the significant difference between the means of scores made by Boys and girls students in post test for Relevance by students taught by the Keller’s ARCS model and the CLP?

<table>
<thead>
<tr>
<th>(MSI)</th>
<th>Boys</th>
<th>N</th>
<th>X</th>
<th>SD</th>
<th>t-value</th>
<th>DF</th>
<th>Critical-t</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCS</td>
<td>11</td>
<td>4.81</td>
<td>.60</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLP</td>
<td>12</td>
<td>3.66</td>
<td>1.30</td>
<td>2.68</td>
<td>21</td>
<td>2.080</td>
<td>Reject Ho</td>
<td></td>
</tr>
</tbody>
</table>

In the above table the t-test shows that the calculated t-value is greater than the critical t, hence there is significant difference, therefore Ho is rejected.

Summary: It shows that the fine art subject proved relevant to the boys than the girls even when the instruction is saturated with motivational materials.

Table 3: t-tests to show the significant difference between the mean of scores made in the MSI in post test for Confidence by girls taught with ARCS and CLP

<table>
<thead>
<tr>
<th>(MSI)</th>
<th>Girls</th>
<th>N</th>
<th>X</th>
<th>SD</th>
<th>t-value</th>
<th>DF</th>
<th>Critical-t</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCS</td>
<td>14</td>
<td>4.78</td>
<td>.42</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLP</td>
<td>13</td>
<td>3.93</td>
<td>1.28</td>
<td>2.43</td>
<td>25</td>
<td>2.060</td>
<td>Reject Ho</td>
<td></td>
</tr>
</tbody>
</table>

In the above table, the t-test shows that the calculated t-value is higher than the critical-t, hence there is significant difference, and therefore, Ho is rejected.

Summary: It shows that girls had confidence in fine art being taught with ARCS strategies.

A one-way ANOVA was adopted to determine variability in “Audience Analysis” between and within the groups of boys and girls in the different instructional levels as shown below.
Table 4: One-way ANOVA used to determine variability in “Audience Analysis”

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sums of SQ</th>
<th>Mean SQ</th>
<th>F. Ratio</th>
<th>Critical-f</th>
<th>Remark.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between group</td>
<td>2</td>
<td>13.453</td>
<td>6.77</td>
<td>3.68</td>
<td>3.06</td>
<td></td>
</tr>
<tr>
<td>Within Group</td>
<td>147</td>
<td>268.64</td>
<td>1.82</td>
<td></td>
<td></td>
<td>Reject Ho</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>281.49</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In the above table the one-way ANOVA conducted on the Audience Analysis scores revealed significant difference, F(2,147) = 3.06  3.68 @ 0.05 level. It shows that there were no differences in motivation of the three groups prior to the instruction This goes to show that immediately after the instruction started there seem to be attention, significant difference observed in students mean score in attitude, Relevance, Confidence and satisfaction.

**Conclusion/ Recommendation**

In drawing our conclusion, it is noteworthy to explain that data for all the tests carried out in this research Doctoral thesis are not included in this paper, however the tables you see here are the ones that report significant difference, and hence all others had no significant difference. The paper is investigating gender responds in fine arts subject. The background history of the subject did not conclude why if any or if there was difference; but from the data before us in tables 1a and 1b, the t-test shows that there was no significant difference in the Motivationally Minimized Instruction (MMI) and the Motivationally Enhanced Instructions (MEI), but in the Motivationally Saturated Instruction (MSI) there was significant difference in boys while no significant difference in the girls. This shows that generally girls have negative attitude to the fine art subject, no matter the level of instruction.

It could also be concluded form the above tables 2 and 3 that in the area of “relevance” the data shows that it was when the instruction was saturated that significant difference was observed in boys. Table 3 indicated significant difference in “Confidence” in the females, when the mode of instruction was
saturated. This result predicts that if the females are followed up closely they will develop interest and subsequently achieve more in fine art.

I so recommend that in order to make the fine arts subject a worthwhile area of study for boys and girls more attention should be given to the subject and effective instructional materials should be sort for and used with very powerful motivational strategies employed.

References


