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Pedagogical Situations And Learning Outcomes In Graphic Design In Selected Senior High Schools In The Kumasi Metropolis Of Ghana

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Abstract:

This study dwells predominantly on the teaching strategies employed by Graphic Design teachers and the learning outcomes of their students. The study purposefully examines the pedagogical approaches of teachers, considering the limited resources available, and how they affect students' acquisition of concepts and skills. Observation, interviews and questionnaires were the instruments used for collecting pertinent data. Having gathered substantial data from the target teachers and their students in eight Senior High Schools in the Kumasi metropolis, it was evident that there were inadequate professional graphic design teachers, lack of studios, computer laboratory, equipment and other facilities for the execution of Graphic Design works. Besides, the lecture method of teaching was mainly employed by the teachers, and this affected the students' skills acquisition and academic achievements. It was also observed that there were no Ghana Education Service (GES) recommended text books for the teaching of Graphic Design and teachers had to depend on unapproved books published by individuals for the teaching of the subject. Lack of these material resources, coupled with incompetent use of some relevant design software and incomprehensive evaluation criteria by the teachers, students' learning outcomes were found to have been affected negatively.

Keywords: *Pedagogy, Typography, Instruction, Graphic Design and Learning Outcomes.*

1.Introduction

The functionality of art is very vital especially when it is used as a tool to communicate ideas to people. Art makes positive impact on our socio-cultural and economic life. The work of art promotes culture as much as it promotes commercial activities. It also has huge contribution on education and health not only in Ghana but in countries all over the world. Visual Art programme was introduced at the Senior Secondary School level in 1991 because art was recognized to have enormous contribution to life in general. The aim of the programme was to promote Ghanaian culture, increase education, equip the learners with employable skills and to meet the commercial and industrial demands of art in the country. Sixteen years later (in 2007), the educational policy makers of Ghana deemed it necessary to introduce art at all levels of education. This led to the introduction of Basic Design and Technology (BDT) in the Junior High Schools and Creative Arts in the Primary Schools during the 2007 educational reform. The purpose was to give the young ones strong foundation in art and to “develop in them the spirit of innovation, creativity and resourcefulness” (Curriculum Research and Development Division –CRDD, 2007, p. iii).Graphic Design is one of the Visual Art subjects offered in the Senior High Schools. It is the art of selecting and arranging visual elements - such as typography, images, symbols and colours - to convey messages. As stated by Singer (1998), Graphic Design is a creative process that combines art and technology to communicate ideas.

It is an area of art which is connected with designing for production of works such as books, magazines, packages and advertising. This discipline is the broadest of all the areas in Visual Arts programmes. In view of this the Graphic Design syllabus was designed with a lot of practical activities. Strict adherence to the structure of the syllabus therefore demands constant and serious practical works to ensure that the learner acquires the necessary knowledge, skills and competencies before the completion of his programme. This study therefore sought to examine the teaching and learning of Graphic Design in relation to available facilities in selected senior high schools in the Kumasi Metropolis.

2.Some Teaching And Learning Styles

Kember (1997) contends that the methods by which instruction is delivered are varied. Selecting a sound model grounded in the science of education as the basis of teaching is one way to promote success. Combining models and using multiple styles can make

teaching and learning an exciting and compelling experience. In support of this, it is stated that although individual teachers have a dominant, preferred teaching style, they must often adopt some elements of other styles (Huba & Freed, 2000). “If you wish to take a more open approach to your teaching, a blend of various styles may be very effective” (p.42), they concluded. Teaching will become more effective, according to Trigwell, Prosser & Waterhouse (1999), when the teacher consciously chooses to employ variety of teaching strategies. As he broadens his repertory of strategies, he will be more skilled in using these strategies. According to Felder (2003), students adopt different strategies of learning. He states that 65% of learners are visual learners (learn by watching), 30% constitute auditory learners (learn by listening) and 5% are kinesthetic learners (learn by doing).

The various learning styles require that teaching is strategized using the needed resources to meet the learning preferences of students. The more variations of teaching approaches used by the instructor coupled with the required teaching and learning aids, the larger the number of students to be satisfied. Hattie (1999: p.9) identifies feedback as ‘the most powerful single moderator that enhances achievement’. Lee (2003) states that feedback is important for effective learning but warns that too much can be as detrimental as too little. Feedback that is appropriate and meaningful to the learner will be a central part of the effective learning environment.

3.Method

To obtain a holistic insight on the quality of teaching to students and the learning outcomes in Graphic Design, personal contacts were made with teachers and students in their classrooms. The researchers used descriptive method under qualitative research and the research instruments used for collecting data were observation, interviews and questionnaires. The research was conducted in the Kumasi metropolis in Ashanti Region. The metropolis has 18 Senior High Schools (CSSPS, 2010). They are made up of four boys’ schools, five girls’ schools and nine mixed schools. Out of these, 15 schools offer Visual Arts programs. For the purpose of this research, focus was on schools which offer Graphic Design. The research covered 8 of the 15 Visual Art schools representing 53.3% of the visual art school population in the metropolis. Cluster random sampling method was used to obtain the 8 schools. In all, 746 students and 8 Graphic Design teachers formed the accessible population for the study.

4.Results And Discussion

4.1.Teachers' Educational Background

The study examined the qualifications of the Graphic Design teachers to ascertain their suitability or otherwise of their status. All the eight Graphic Design teachers visited in the various schools had university education. This is because it is a Ghana Education Service (G.E.S.) regulation that teachers in the Senior Secondary Schools should possess at least a first degree qualification. As seen in Table 1, 38% of the teachers did not have university education in Graphic Design. The reasons given for handling the subject were that they had some Graphic Design background in their secondary school education and with the additional study of other art discipline at a university they felt they could teach Graphic Design.

Area of specialization	Number of teachers	Percentages (%)
Pursued Graphic Design in a university	5	62%
Pursued an Art Programme in a university but not Graphic Design	3	38%
Total	8	100%

Table 1: Teachers' Educational Background

The fact that these teachers had secondary education in Graphic Design and had art education in the university may not necessarily mean that they are competent enough to teach the subject at that level. Creemers and Reezigt (1996), state that a good teacher must have full command over his subject. He should have a much higher education than his learners. The bone of contention here is the use of secondary school knowledge in Graphic Design to teach the subject in the secondary schools.

4.2.Use Of Instructional Strategies

Basically, three different types of teaching methods were used by the teachers. These are the lecture method, project method and demonstration method (Fig. 1).

4.3. Lecture Method Of Teaching

The lecture method refers to the teaching procedure which dwells on clarification or explanation of ideas to students. This method lays emphasis on the discernment of contents. In 13 of the 20 lessons observed, teachers employed the lecture method of teaching, representing 65% of the total sittings made by the researchers. In this method, lessons were presented verbally which required that the learner perceived concepts with the mind. While the teacher actively did the verbal presentation, the learners passively gave audience and tried to form mental pictures of concepts.

4.4. Project Method Of Teaching

Four lessons, constituting 20% were observed to have used project method of teaching. This is a problem solving method of teaching in which the learners work spontaneously in groups with no imposition, restriction or obstructions from the teacher. This method of teaching is learner- centered and provides opportunities to students that make them active and learn by doing. The learners discover new facts, principles and information through experience (Charters, 1997).

4.5. Demonstration Method

This method was used in three lessons, representing 15%. The method is used to teach skills through demonstration of step-by-step procedures in a task using the exact physical procedures. While demonstrating, the reason and the significance of each step are explained (Mehan, 1979). This method is recommended for teaching of skills because it covers all the necessary steps in an effective learning order

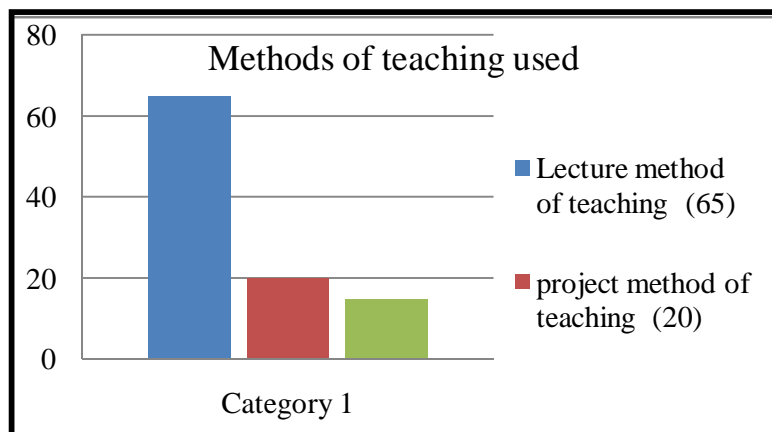


Figure1: The Various Methods Of Teaching Adopted By The Teachers

The lecture method of teaching constitutes the greatest part of the lessons observed. The students were not actively involved in the learning process. In contrast to what Bigge and Shermis (1999) stated that practices that promote effective teaching include adopting learner- centered teaching and using motivational techniques during lesson, most of the lessons observed were teacher-centered. In assessing teaching effectiveness, 358(48%) of the 746 students responded in the negative, while 276 respondents, representing 37%, responded in the affirmative and the rest of the 112 students (15%) did not respond. Students who liked their teachers' teaching style stated reasons such as the following:

- The teachers were regular in class
- They made the lessons interesting with good sense of humor
- The teachers gave explanations and enough notes
- Those who responded in the negative had the following reasons:
 - The lessons were full of talks and no demonstrations.
 - The teachers did not give enough practical works.
 - Graphic Design is a practically oriented subject which demands practical approach of teaching. Students are visual, auditory or kinesthetic learners.
 - The use of lecture method satisfies only the auditory learners and may not promote skill acquisition if not handled properly. Lecture method of teaching can render students passive as they sit to receive the information presented by the teacher.

4.6. Non Availability Of GES Recommended Textbooks On Graphic Design

It was discovered that there were no GES recommended books for Graphic Design. The schools' libraries did not have any reference book on Graphic Design. Sixty two percent of the teachers had their personal reference books on the subject. However, it was revealed that those reference books did not have all the topics outlined in the syllabus. The rest of the teachers- 38% of them - said they depended on the Graphic Design syllabus and the textbook for General Knowledge in Art (GKA) for teaching the subject. The GKA textbook was written to give students historical and cultural significance of art and some knowledge on the various aspects of art. The use of this textbook for the teaching of Graphic Design is therefore not appropriate. In response to a question on how the lack of Graphic Design textbooks affects teaching in the classroom, the teachers pointed out that they were limited in a number of ways as they did not know the extent to

which to treat a particular topic. This notwithstanding, they mentioned that they handled each topic the best they could. Responding to the same question, the students said the situation is very disturbing. One female student lamented in an interview as follows:

It is quite discouraging to visit the school library and discover that there is not a single book on the course one is pursuing when students of other departments are busily reading because they have multitude of books in shelves on their area of study. It looks as if the library is not meant for us the Graphic Design students. The lack of Graphic Design textbooks has affected the teaching and learning of the subject a great deal. The students do not have any reference book for their personal studies. They have no choice but to depend only on the notes given to them by their teachers. Learning becomes teacher-centered as the teacher has to do much of the talking while the students play a passive role of listening. This situation kills the spirit of exploration in students; thus limiting students' contribution during lesson and consequently resulting in academic under-achievement. Again, depending on inappropriate materials (textbooks) by the teachers in handling Graphic Design can affect teaching and learning to a large extent. This is because the teacher will not have substantial amount of information needed to teach the various topics. Students will end up having very limited ideas in their chosen fields of study which will eventually reflect on their performance in the final standardized examination.

4.7. Non-Availability Of Studios

Only two out of the eight schools visited had studios but they were too small to accommodate students and neither of them was well furnished. In one of the Schools, with Graphic Design student population of 125 consisting of Forms 2 and 3 only, a small room measuring 5m by 4m was allocated as the studio space for their practical works. The studio was furnished with only four tables and four benches for the entire student population.

In an interview with some of the students on this subject, 60% of them said they had never used the studio for their practical works before because it was not comfortable there. Thirty percent of them said they did their practical works in the studio but not always. The rest of the 10% stated that they always worked in the studio but this was done only when the place was not crowded.

Non-availability of Studios for the execution of Graphic Design works in the schools affects skills acquisition. Teaching and learning will be improved in our schools if the

necessary resources, are provided. As Davis (1997) states that teaching involves a teacher and a student interacting over a subject in a setting, if competent teachers are available and the facilities and infrastructure are nonexistent, there will be no effective teaching. LeBoeuf (1985, p. 23) agrees with Davis as he establishes that “Recent studies have shown that students’ perceptions of their learning environments are related to the learning approach they adopt”. As it stands, the students’ learning outcome will be affected because the right learning and enabling environments are not created for them.

4.8. Non Availability Of Computers

The use of computer is very pivotal in the study of Graphic Design. “Students have to be skillful in the use of computer to design visual communication media items” as stated in the specific objectives column of the Graphic Design syllabus (CRDD). It is quite surprising to notice that none of the schools visited had a single computer for the Graphic Design department. The teachers mentioned how badly they needed computer for the teaching of the subject. They added that they had no choice but to teach what is meant to be a practical lesson theoretically even though the students did not understand them most of the time. Interviews with some of the heads of department on this subject revealed that the school authorities were not responsive to the plights of the art departments even though they forwarded petitions of their departments’ needs to the authorities several times. One of the heads of department noted as follows:

The school authorities are totally insensitive to our problems because they don’t attach any importance to the Art department. The department is marginalized at the expense of the students. In modern day of ICT gratification, lack of computers for the study of Graphic Design will deny students the skills needed to design visual communication media items and this can lead to poor performance in the final examinations should computer based questions be asked.

4.9. Teachers’ Competence Level In Using Graphic Design Software

Results from interviews indicated that 60% of the teachers knew how to use Corel Draw; 35% of them knew how to design in Photoshop and Illustrator and only 5% of them knew how to use Quark-Xpress. Ideally, every teacher should have knowledge on how to use all the software mentioned because they were in the syllabus to be taught.

It can be deduced from the information provided above that no teacher had knowledge on all the design software listed in the syllabus. This stands to reason that the teachers

fall short of using the Graphic Design software. The reasons given by some of the teachers for not being able to use the software are that the software were not taught in the university during their study there. Others said that one of the software (Quark-Xpress) was new to them and they had never seen or used it before.

This lends credence to the fact that the teachers did not have full command over the contents of the syllabus. Teachers' inability to understand the contents of the syllabus can affect teaching and learning even when computers are provided. Rabia (2004) says that teaching is the transfer of knowledge from a teacher to a learner. So obviously if the teacher does not have the knowledge on how to use Graphic Design software, there is no way he will be able to teach it.

Myint *et al.* (2004) reports that understanding the contents of subjects being taught is very important and that the contents are always changing with the progress of society. Relating this to what Arends (1994) says that a teacher is nothing but a clever student, we can infer that teachers owe it a duty to learn constantly to keep abreast with time as the contents of the syllabus are being reviewed so often.

4.10. Evaluation Of Students' Work And Lesson Objective Achievement

It was noticed, after examining samples of students' exercise books and practical works that about 60% of students scored 80% and above; about 30% had between 60% and 70% and the rest of the 10% scored between 50% and 60%. None of the students had below 50%. This is to say that more than half of the students had grade 'A' in Graphic Design according to the teachers' assessment. This could be a very good students' achievement record if scoring was done in accordance with requisite marking criteria.

4.11. Teachers' Knowledge On Evaluation Of Art Work

Reacting to a question on what they looked for when evaluating an art work, 60% of the teachers mentioned that they looked for creativity and good finishing and the rest of the 40% said they were very particular about creativity in design and originality. None of the teachers mentioned other vital criteria that have to be considered when evaluating a work of art -as stated in the Graphic Design syllabus developed by CRDD, (2008) - such as innovation; the use of media (tools and materials); Design (thus composition of elements and principles); technical competence (draughtsmanship and craftsmanship); uses and the relevance of artifact to society/community. Standardized criteria for evaluating students' works were provided in the Graphic Design syllabus which is also used by

external examiners in the West Africa Senior Secondary Certificate Examination (WASSCE). Clearly, teachers' inability to subject students' works to all the criteria set for marking students' work can have profound effects on students' performance at the end of their study when the standardized criteria are used to judge their performance in the WASSCE.

4.12. Students' Opinions About Their Own Performances

Subsequent to the high marks being awarded to students' works, the researchers sought to know students' opinions on their own performance. It was revealed that well over 69% of the students were satisfied with their learning outcomes while the rest of the 31% expressed the need to improve upon their performances. The students said they were satisfied with their performances because they had good marks. Based on these responses, it is conclusive that majority of the students will not be mindful to explore more on purpose to improve themselves academically because subconsciously, they believed they were up to the task ahead of them. This could lead to under achieved learning outcomes at the end of their study.

4.13. Students' Performances In The Classroom Compared With Their Performances In WASSCE

It was revealed in interviews with teachers that the performances of students in school tests and examinations were always better than their performances in the WASSCE. While some teachers thought the reason for the disparity is because the WASSCE marking scheme was high, others believed that students did not always put in their best in finishing their project works and writing good appreciation to support them. Based on the information discussed earlier on the teachers' evaluation of work it could be concluded that the disparity in performance was partly due to the standard of evaluation processes adopted by the examiners in marking WASSCE which is not used by the teachers and partly due to students' inability to work to meet the standard of questions.

4.14. Students' Suggestions For Improved Teaching And Learning

Responding to a question on possible ways of improving teaching, 231 student respondents (31%) believed that with the provision of Graphic Design studio, teaching and learning will be effective. Again, 201 students (27%) were of the view that teaching and learning would improve if they had access to Graphic Design textbooks.

Furthermore, 172 students representing 23% of the total number of respondents argued that availability of tools and materials would help improve their studies and finally, 142 students constituting 19% observed that provision of computers would be of great help to improving their studies (Fig. 2). Technically, the above-mentioned major problems were found to affect teaching and learning in all the schools visited and the students' suggestions for improvement of the programme are legitimate.

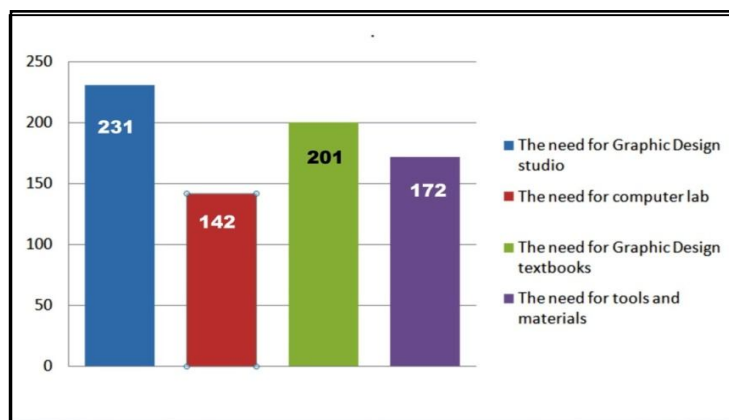


Figure 2: The Needs Identified By Students To Support The Study Of Graphic Design

5. Conclusion

This study has unearthed challenges being faced by the teachers of Graphic Design as well as some professional shortcomings on their part. It was noticed that the prevailing problems in the various schools such as lack of textbooks; nonexistence of the physical infrastructure needed for the execution of Graphic Design works; lack of studio and computers for designing, all of which are essential for effective teaching of the subject, were to a large extent, the determinants of the pedagogical strategies employed by the teachers. Again, teachers' adoption of their preferred instructional approaches and their own style of evaluating the work of students - other than those outlined in the syllabus - had affected the learning outcomes of students. For teaching to be very effective, some corrective measures have to be taken. Below are recommendations to that effect.

6.Recommendations

Besides teachers being degree holders, it should be ensured that every one of the Graphic Design teachers at the secondary schools has a degree in Graphic Design and not just a degree in any art course. This will provide the competence needed for effective teaching. Rather than using the lecture method, it is advisable for teachers to use the multi-sensory approach of teaching Graphic Design. Demonstration and project methods of teaching should be incorporated in the teaching as these methods activate different senses of learners and tend to satisfy a large category of learners such as the visual learners, verbal, kinesthetic and the auditory learners as stated by Reigeluth (1983). The lecture method of teaching should be minimal in teaching Graphic Design because it does not promote skills acquisition. For students to be skillful in the use of computer for the designing of visual communication media items as stated in the syllabus, the Ghana government and other educational agencies should equip all the Graphic Design departments with computers. To promote effective learning and ensure good performance of students in Graphic Design, teachers should evaluate students' works based on the standardized criteria outlined in the syllabus. GES should organize workshops for teachers on how to score students' works according to the evaluation checklist of art work as provided in the syllabus. Art educators should collaborate with Ghanaian writers and publishers and publish Graphic Design books based on the recent syllabus provided by the Curriculum Research and Development Division (CRDD) of the Ministry of Education, Science and Sports to be used as GES recommended books for Graphic Design for Senior High Schools nationwide. Art studios should be provided in Ghanaian schools to facilitate the execution of Graphic Design works and to promote skills acquisition.

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