Influence of Implementation of Art and Craft Learning on PTE Art and Craft Performance in the Rift Valley Region of Kenya

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Abstract:
The government of Kenya has not only expanded enrolment of teacher trainees but also introduced new Teacher Training Colleges to cater for the teacher-learner ratio in primary schools' sector as a result of free primary education. However, there is still dismal quality training management for Art and Craft at Primary Teacher Training Colleges, hence low examination performance. Thus, the purpose of the study was to find out the influence of implementation of Art and Craft learning on PTE Art and Craft performance in public teacher training colleges in the Rift Valley Region in Kenya. The objective of the study was to establish the effectiveness of resource utilization on Art and Craft for PTE performance in public teacher training colleges in the Rift Valley Region. The study put to use Vygotsky theory of the zone of proximal development. The study employed a survey research design. The stratified sampling of colleges was done to determine the ones where the studies were conducted. It was extended to tutors, students of Art and Craft, college administrators and Ministry of Education officers. The research data was collected using questionnaires, interview schedules, document analysis and observation checklist. The study used the construct validity technique where the two instruments were given to supervisors for validation. Reliability of instruments was determined through a pilot study after which a Cronbach alpha coefficient was calculated and found to be above 0.7. Hence the instrument was reliable enough to be used. Statistical Package for Social Sciences (SPSS) version 21 was used for data analysis. The degree of confidence stability was accepted at d0.05 margin of error. Quantitative data were analyzed using both descriptive statistics and inferential statistics and presented in form of frequency tables and graphs. The inferential statistics used were Chi-square and Spearman rank correlation. Qualitative data was analyzed in themes and presented in narrative form and percentages. The findings of the study will be useful to TTC managers who will adopt result-based implementation approach, tutors who will work well in result-oriented implementation and students who performed better in PTE Art and Craft examinations as a result of a conducive implementation strategy. The study can also form a basis for further research. Thus, the significance of the study is in the fact that implementation can enhance the current database future trend of transition from a certificate to diploma status and therefore essential to leaders and policymakers.

Keywords: Art and craft learning, implementation, performance

1. Introduction

The Arts Education curriculum aims to help students develop creativity, critical thinking and communication skills, and nurture aesthetic sensitivity and cultural awareness. It develops Arts skills, constructs knowledge, and cultivates positive values and attitudes. Students gain delight and satisfaction through participating in arts activities apart from lifelong interest in the arts (Swapp, 2016). He adds that lack of investment in Arts and Crafts subjects could have serious consequences for the future of higher education (HE) in the Arts and ultimately for the creative industries sector. Francine Norris, Director of Education at West Dean College, which offers courses in conservation and visual arts, recently commented that the government needs to wake up to the fact that Arts and Crafts underpin the UK's world-leading creative industries sector(Cameron, 2014).

Research in Australia has shown that the values related to the Creative Arts are closely linked to teacher's backgrounds (Costanoura et al, 2000). Lack of value and support for the Arts and Crafts in learning at a systemic level can perpetuate already low levels of esteem for the subject among teachers. Consistently, in all investigations into the state of Art and Craft, primary teachers' feelings about lack of preparedness to teach the Creative Arts are partly attributed to inadequate pre-service training.

Teachers play a vital role in development of learner's capacity in becoming responsible citizens. Improving quality and maintenance of standards has been a major concern to most education systems in different countries of the world as a process that enables individuals to value, have access to and succeed in life (UNESCO, 2007). The process of improving
quality and maintaining of standards aims at bringing improvement by gathering information for value judgment in education process (UNESCO 2007).

An Art room or workshop uses such equipment as digital cameras, scanners and computers to collect pictures for projects and use them to draw an idea using paper and pencil. Computer use should also not threaten traditional drawing and painting but complement and improve student’s drawing and painting which is a major area taught and examined at PTE.

Vygotsky’s (1978) theory shows a clear link between thinking, drawing and the development of visual thought, suggesting that drawing is an important mediation tool for thinking. The students should work with a variety of traditional drawing tools alongside digital tools.

Genevie (2017) postulates the need for technical concerns and addressing logistical issues, resources and information technology in the management of educational programs. Use of digital tools and creativity can be developed and used significantly through the guidance of teachers (Aboalgasm, 2014).

For instance, Kuku Kuku Memorial Boarding school in Runyenees sub-county in Embu County offers Art and Craft in its curriculum though not examinable. This has benefitted its students who make and sell functional products, take care of their environment by recycling materials, make aesthetic products and further broadened pupils creative and leadership skills (Nyaga, 2015).

The study also focused on various policies which affect Art and Craft learning such as the teaching practice calendar and optional selection of Art and Craft subjects and its bearing on PTE performance.

1.1. Statement of the Problem
The provision of education and training to all Kenyans is fundamental to government overall development strategy (MOEST, 2004). Since the inception of the PTTCs curriculum in 2004, Art and Craft subjects are taught with the aim of nurturing talents, fostering self-satisfaction, income generation and acquisition of skills, knowledge, and attitudes that enable them not to perform dismally in PTE Art and Craft (Kiti, 2004). Quality teacher training is very necessary for effective teaching and the performance of roles and duties as there have been an influx of learners of different social, economic and political backgrounds and age, contributing to the serious shortage of skilled teachers in non-examinable Art and Craft at primary education level. The Art and Craft examinations were scrapped from the curriculum in 2001 (Nyaga, 2015).

The development of art education in colleges should attach importance to the development and utilization of educational resources (Xiaolei, 2017). The development and utilization of art educational resources in colleges cannot only promote national culture, students’ charisma but also art education. The effective integration of resources improves the efficiency of classroom teaching and better results. The inadequacy of Art and Craft educational resources is likely to disadvantage Art courses. The lack of Art curriculum resources will not enable art education achieve desired goals (Zhengzheng, 2017). Once the resources of art education are exploited, it will broaden the scope of art education resources; enhance the quality of art education and its content thereby ensuring effectiveness and practicability of college art education curriculum. Schools have not provided time, space and resources for arts education activities within and outside the school. The authorities should view this seriously otherwise the recognition of schools should be cancelled (Lehman, 2001). This has consequently culminated in dismal performance in Art and Craft in PTE Art and Craft performance.

1.2. The Purpose of the Study
The purpose of the study was to evaluate the effectiveness of resource utilization in Art and Craft curriculum of PTTCs in the Rift Valley of Kenya after its inception in September 2004.

1.3. Objectives of the Study
The study is based on the following objective: To ascertain the effectiveness of resource utilization in implementation of Art and Craft learning and its effect on PTE Art and Craft performance in the Rift Valley Region.

2. Empirical Review

2.1. Resources for Implementing Art and Craft Learning

2.1.1. Out and in Class Resources
Basically, any resource used by a tutor to help in teaching students is an instructional material. They include textbooks, art classrooms, graphic organizers, and teacher made resources. Studies done of PTTCs in Nigeria by Onasanya in 2008 confirmed that instructional materials stimulate learning because firstly student teachers get more attentive and also student teachers positive attitude generates more interest for lessons they learn to teach. Student teachers' participation is enhanced especially in class activities and promotes their performance in PTE Art and Craft apart from improving the teaching process (Adeyanju, 2003). (Kadzera 2006, Onasanya, 2002).

Jimbo (2009) advocated for the use of instructional media (I.M) in teaching as a necessary practice for effective learners' behavior change in all fields of learning and especially in PTTC since they are being prepared to handle children who are in their formative years. The presence of instructional media makes tutoring more effective in classroom and less stressed. Other studies in p1 PTTCs have shown that instructional media stimulates learning, imagination, retention and
improves learner outcomes. Ngarogo, (1996) argued that the use of resources for arts and crafts remains a thorny issue in PTTCs. Earlier studies have shown how much emphasis is laid on the use of instructional resources (Xiaolei, 2017). Much school education laid emphasis on the importance of teaching art education. At the same time, it had been given a secondary treatment by the schools, teachers, parents, school management and finally by the students who otherwise enjoy art related activities. The present status of art education has become worse from what it was in the last few decades. Certain characteristics such as ‘innate’ ability, may affect the amount and types of education and training as well as subsequent performance of teachers in the classroom (Harris, 2020).

The relationship of education level to effectiveness of in-service training programs has been investigated. It is evidenced that better trained and more experienced teachers tend to transform students to greater ability and who also have fewer discipline problems (Clotfelter et al. (2005), Feng (2005)). According to Okonkwo (2014), there are very few trained qualified teachers for teaching art education subjects. There is a deliberate and purposeful need for training of art teachers for the nation’s school system. Moreover, inadequate teaching facilities such as art studios and materials are an attribute of most schools and colleges teaching Art and Craft courses rendering its teaching an exercise in futility, denying student artist necessary artistic skills (Barnabas, 2005). In addition, Ronald and Helen (2003) found that principals’ scores on licensure and aptitude exams were positively correlated with educational level and their age. It may seem obvious that the most academically talented head teachers are the best managers in their school. Professional and academic qualification is a factor that contributes to effective administration in institution especially in curriculum implementation (Kamindo, 2008). Principals’ level of education will influence their perception on in-service training which will in turn influence the effectiveness of in-service training programs.

There are several reasons for the present status of art education. In a research done by the National Council of Educational Research And Training (NCERT) in India, an in-depth study of Teaching – Learning Practices and Evaluation Procedure in Art education, observed that all children enjoy creativity in their earlier stage of education but by the time they reach class VI they start losing interest in art education(Khan, 2016).

2.1.2. Syllabus Specific Materials

The PTE syllabus vol. 1 contains the topics and sub-topics and time allocation of coverage of each topic to be covered within the 2-year course period. The Art and Craft syllabus was established with the aim of giving student teachers an opportunity to acquire knowledge, skills and attitudes apart from self-fulfillment, self-expression, and creativity through their works (KIE, 2004). The scope is organized so as to cover a broad coverage of content and methodology in first year integrating the components of Creative Arts. In second year, there is Specialization in Art and Craft on its own. Each instructional material is spelt out for the topics to be taught. However, the studies done by most researchers have not focused on whether this is achieved and this study verified the extent of coverage of the syllabus to be covered by the second year Art and Craft student teachers.

2.1.3. Art and Craft Resource Boundary

The use of local resources is usually associated with improvisation where a teacher device a substitute when the original material is not available. Kedzera (2006) uses a globe made out of clay to illustrate improvisation. Improvisation emphasizes the ability to make an item look like and function in the same way as the original material.

2.1.4. Hardware and Software Awareness

Tutors experience influences the use of instructional media. Bernard, (2007) found out that acquisition of computer skills is neither smooth nor linear. It takes time and aspiration. He further points out that experience fosters the appreciation and use of instructional media. In a related study, Kedzera (2006) points out that lack of instructional media resources is one of the contributing factors to minimal use of instructional technology in teacher training colleges of Malawi. The teacher has a significant role to play in helping the student teacher develop the process of creativity through the use of digital tools and their use in classroom (Loveless, 2006). ICT should complement the use of traditional methods of Art and Craft to help students who want to create art but have poor drawing skills (Faber, 2009).

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**Figure 1: The Strategy of Teaching Arts in Classroom**

*Source: Butler Et Al (2013)*

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3. Theoretical Framework

The zone of proximal development, often abbreviated as ZPD, is the difference between what a learner can do without help, and what they cannot do (Berk & Winsler, 1995). The concept was introduced, but not fully developed, by psychologist Lev Vygotsky (1896–1934) during the last ten years of his life (Zone of proximal development, 2009). Vygotsky stated that a child follows an adult’s example and gradually develops the ability to do certain tasks without help (Yasnitsky, 2018). Vygotsky and some other educators believe that the role of education is to give children experiences that are within their zones of proximal development, thereby encouraging and advancing their individual learning such as skills and strategies.

The application of this theory on the research problem of the influence of quality training management on Art and Craft at PTE performance in public teacher training colleges of Kenya is that the independent problem solving and the level of potential development as determined through problem-solving under adult guidance, or in collaboration with more capable peers as in this case level one is the learner, level two the tutor in TTC and level three the outcome of PTE results which has to be determined by the continuum of learning arrow. The ZPD refers to the difference between what the learner can do without the help (craft), resources utilization and what one can achieve with guidance and encouragement from a skilled partner person (fine artist). Therefore, the term ‘proximal’ refers to those skills that the learner is ‘close’ to mastering in the study to achieve current practical Art and Craft both at PTE and framework dynamics of scaffolding.

3.1. Conceptual Framework

The conceptual framework of the study evaluates how the various types of resources impact PTE performance. Independent variables such as out and in class resources include brushes, paints, clay, wood, beads and craftsmen. Syllabus specific materials comprise textbooks while Art and Craft resource boundary embraces Art studios/art rooms, exhibitions and resource persons such as artists and craft persons all impacting on Art and Craft in PTE in public teacher training colleges.

4. Materials and Methods

This study applied a mixed methods approach of descriptive research design with a survey strategy to assess the influence of quality training of Arts and Craft on PTE performance in PTTCs. As such, most of the data was of both qualitative and quantitative nature and hence, require the use of descriptive research design that permits the description of phenomena as they are and allows for the generalization of the findings to the whole population. The target population

Figure 2: Theoretical Framework
Source: Cited from Vygotsky’s Theory (1978)

Figure 3: Conceptual Framework
Source: Researcher 2019
of this study was all the 5 PTTC’s of the Rift Valley because they represent the basic Teacher Education institutions. The PTTCs make a good research population because of the Government’s concern in improving PTE to make it more relevant to the needs of the country and latest international trends in teacher Education (MOEST, 2005). The study targeted 10 Art and Craft Tutors, 5 deans of curriculum and 500 second-year students taking Art and Craft in PTTC’s in the second year. The study employed purposive sampling. Purposive sampling is a technique for selecting data sources, where researchers draw the sample from specific respondents (Boom, 2000). Purposive sampling is based on the assumption that the researcher wants to select a highly representative sample (Merriam, 1998). For this study, the purposive sampling was used to select all the 5 PTTCs 5 DOCs and 10 Art and Craft tutors respectively. Art and Craft is taught separately in the PTTCs…. simple random was used to select the 300 students out of 1000. Connelly in 2008 states that an Ideal pilot study sample size should be 10% of the sample size for main study.

The random sampling was used to select Art and Craft Tutors and second-year students from the selected PTTCs.

| Sample Category     | Target Population | Sample Size | Sampling Technique |
|---------------------|-------------------|-------------|--------------------|
| Art and Craft Tutors| 10                | 10          | Purposive          |
| Deans of Curriculum | 5                 | 5           | Purposive          |
| 2nd-year Students   | 1000              | 300         | Simple random      |
| Total               | 1015              | 315         |                    |

Table 1: Sample Size and Techniques

Source: Author (2019)

Data were collected by questionnaires, interview schedule and document analysis. This study applied content validity, which refers to the degree to which the instruments represent the content that the test is designed to measure (Oso&Oyen, 2009). To ensure content validity the researcher presents the instruments to the supervisors to examine whether the items in the instruments would measure the projected constructs. Their valuable comments, corrections, and suggestions helped to validate the instruments to achieve the objectives. In order to ensure reliability of the instrument an assessment ... the test-retest technique of reliability testing was employed whereby the pilot questionnaires were administered twice to the respondents, with a three-week interval, to allow for reliability testing. The pilot study was done at Moi Baringo TTC. 2 Art and Craft Tutors and thirty-second-year students were randomly selected. In addition, two Deans of Curriculum(D.O.C.)s were purposively selected giving a total of 34 respondents. After the first administration, the researcher re-visited the college after three weeks for the second administration. The researcher then used the Pearson correlation Coefficient formula to determine the reliability of the instrument. The Pearson coefficient yielded a coefficient of more than 0.7 that the questionnaire was deemed to be reliable. The researcher got an introductory letter from the university which was used to obtain a permit from the National Commission for science, technology, and Innovation (NACOSTI). The researcher obtained another introductory letter from the county director of Education offices in the Rift Valley which was used to collect data using both qualitative and quantitative data analysis procedures. Responses from the closed-ended questions were assigned numbers with the open-end questions numbered according to themes based on the research Questions which was assigned a code. Frequency tally then is used to assign each expected response in the data to the theme it closely corresponds to. Descriptive statistics were used to analyze quantitative data, which include the use of frequencies and percentages. The researcher sought the assistance of supervisors, who, as experts in research, help improve the content validity of the instrument (Borg and Gall, 1989).

A research permit was obtained from the Ministry of Education before proceeding to the study sites, and then the researcher visited the concerned PTTCs to seek permission for the study.

A timetable of events during the study was drawn by the researcher in consultation with the various PTTC Tutors of Art and Craft and their DOCs to ease work in the field. Data gathering through questionnaires, interviews, and observation commence as soon as agreed between the researcher and the concerned PTTCs, DOCs, and Art and Craft subject Tutors. The researcher after piloting and revision of the instruments administered the instruments in phases as follows. Phase one: The questionnaire was administered to the tutors and students of Art and Craft in their respective colleges. To achieve reliable results, the researcher scrutinized whether there were any errors filled in questionnaires before collecting them from the concerned Tutors and students.

Phase two: the researcher interviewed DOCs. Information results from this group helped verify information obtained through the questionnaire regarding the Art and Craft curriculum.

Phase three: the researcher observed the availability and adequacy of resources. This was conducted to cross-check information obtained through the questionnaire and interview.

During this stage, the researcher organized raw data collected from questionnaires, observation/ documents, interviews into significant patterns to reveal the essence of the data (Patton, 1990). Descriptive statistics were used to analyze and interpret the data. The descriptive statistics calculated include frequencies and percentages. The researcher used the Statistical Package for Social Sciences (SPSS) to analyze the data.

5. Results and Discussion

5.1. Response Rate

The researcher administered 315 questionnaires to the respondents. The researcher categorized respondents into Art and Craft Tutors, 5 deans of curriculum and second-year students. All students filled and returned the questionnaires...
making the student's response rates to be 100%. However, the deans of curriculum development Art and Craft teachers returned a total of 7 questionnaires. The total response rate for the entire study was 97.46%.

5.2. General Characteristics of the Respondents

The study interviewed 232 (75.57%), female respondents and 68 (24.43%) males. This indicated that PTTCs in the Rift Valley are dominated by ladies.

Most Tutors and Deans of Curriculum of Arts and Craft were above 50 years. 4(57.14%) of Tutors and Deans of Curriculum of Arts and Craft had Bachelor of Education Degree, 3(42.86%) had a Masters of Education Degree while non-had Diploma in Tutoring Profession. 6(85.71%) tutors had a working experience of more than 4 years while only 1(28.57%) had experience of 1-3 years.

The researcher found out that 164(54.55%) of the respondents fall between the age bracket of 20 and 29years. 119(39.77%) were of the age range 30-39 years while 40-49 age bracket were 14(4.55%). 50 years and above were 3(1.14%). The study revealed that 205(68.37%) of the respondents interviewed were school-based while 95(31.63%) were regular. This suggests that the school-based program has more Art and Craft students than regular program. An average number of 275(91.76%) of the colleges are located in rural while 25(8.24%) are located in urban centers.

5.3. Impact of Resource Utilization in Implementation of Art and Craft Learning and Its Effect on PTE Art and Craft Performance in the Rift Valley Region

This study investigated whether colleges had enough teaching and learning resources in order to understand how they affect students' arts and craft performance. The researcher sought to establish the state of Teaching and Learning Resources in the College. The respondents were required to indicate whether the following teaching and learning resources in table 2 are adequate in their college.

| Resources                                           | Adequate | Not Adequate |
|-----------------------------------------------------|----------|--------------|
|                                                    | F  | %   | F  | %   |
| Drawings for PTE A&C performance                    | 188 | 62.50 | 113 | 37.50 |
| Paintings for PTE A&C performance                   | 199 | 66.44 | 101 | 33.56 |
| Clay to PTE A&C performance                         | 145 | 48.48 | 155 | 51.52 |
| Samples of Art works for PTE A&C performance        | 211 | 70.29 | 89  | 29.71 |
| Videos and projectors for PTE A&C performance       | 64  | 21.17 | 236 | 78.83 |
| Computers and storage devices for PTE A&C performance| 137 | 45.59 | 163 | 54.41 |
| Art rooms and workshops for PTE A&C performance     | 257 | 85.81 | 43  | 14.19 |
| Craft tools and equipment for PTE A&C performance   | 212 | 70.55 | 88  | 29.45 |
| ICT supplement for PTE A&C performance              | 138 | 46.15 | 162 | 53.85 |

Table 2: Showing the Impact of Resource Utilization in Implementation of Art and Craft Learning and Its Effect on PTE Art and Craft Performance in the Rift Valley Region

Source: Author (2019)

Out of 300 respondents, 257(85.81%) agreed that Art rooms and workshops for PTE A&C learning are adequate in the college, 212(70.55%) specified that, Craft tools and equipment for PTE A&C learning are adequate in the college, 211(70.29%) designated that Samples of Artworks for PTE A&C learning are adequate in the college, 64(21.17%) showed that Videos and projectors for PTE A&C learning are adequate in the college, 188(62.50%) showed that Drawings for PTE A & C performance and 199(66.44%) indicated that Paintings for PTE A & C learning are adequate in the college.

The study also indicated that Clay for use in PTE A & C is not adequate by 155 (51.52%), Computers and storage devices for PTE A&C are not adequate by 163 (54.41%) and ICT supplement for PTE A&C are not adequate by 162(53.85%)

The study was supported by Akungu, (2014) who states that Teaching and Learning Resources help improve access and educational outcomes since students are less likely to be absent from schools that provide interesting, meaningful and relevant experiences to them. These resources should be provided in quality and quantity in schools for effective teaching-learning process. Several studies have been conducted on the impact of instructional materials on education. Momoh (2010) conducted research on the effects of instructional resources on students' performance in West Africa School Certificate Examinations (WASCE). The achievements of students in WASCE were related to the resources available for teaching. He concluded that material resources have a significant effect on student's achievement since they facilitate the learning of abstract concepts and ideas and discourage rote-learning. When Teaching and Learning Resources are inadequate, education is compromised and this inevitably is reflected in low academic achievement, high dropout rates, problem behaviors, poor teacher motivation, and unmet educational goals.

6. Summary and Conclusion

Out of 300 respondents, 257(85.81%) agreed that Art rooms and workshops for PTE A&C are adequate in the college, 212(70.55%) specified that, Craft tools and equipment PTE A&C are adequate in the college, 211(70.29%) that Samples of Artworks for PTE A&C are adequate in the college, 64(21.17%) showed that Videos and projectors for PTE A&C are adequate in the college, 188(62.50%) showed that Drawings for PTE A & C and 199(66.44%) indicated that Paintings for PTE A & C are adequate in the college. The study also indicated that Clay for PTE A&C is not adequate by 155
(51.52%), Computers and storage devices for PTE A&C are not adequate by 163 (54.41%) and ICT supplement to PTE A&C are not adequate by 162(53.85%). The study was supported by Akungu, (2014) who states that Teaching and Learning Resources help improve access and educational outcomes since students are less likely to be absent from schools that provide interesting, meaningful and relevant experiences to them.

7. Conclusion
On the basis of the findings, the study concluded that effective art educational resource utilization is the basis of the development of Art and Craft learning which leads to achievement of desired goals in the PTE Art and Craft performance.

8. Recommendations
The study established that a number of factors need to be taken into consideration in the implementation of Art and Craft Learning:
- The colleges in partnership with the Government should provide adequate resources to teachers and students who are involved in improving Arts and Craft Subject.
- The Government and Schools should enact Policies on provision of resources that help in the implementation of Art and Craft learning to improve PTE performance.
- College administrations and schools should enhance ICT infrastructure in Art and Craft for better performance of the subjects in the PTE examinations

9. Suggestion for Further Studies
More research should be carried out in other parts of the Country to curb emerging issues on the following research topics:
- Policies affecting the implementation of Art and Craft learning for PTE performance.
- Perception of How Integrated Art and Craft curriculum is being implemented in Primary Teacher Training colleges.
- To ascertain whether a lack of practical affect implementation of Art and Craft learning on PTE Art and Craft performance in the Rift Valley Region.

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