

IMPACT OF KINESTHETICS AND EXPOSITORY METHODS ON STUDENTS' PERSONAL CLEANLINESS AFTER MOTOR LEARNING EXERCISES DURING COVID-19 IN IDAH EDUCATIONAL- ZONE, KOGI STATE

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Abstract

The study examined efficacy of bridging gap between kinesthetics and expository methods on JSS 3 students' PCAGAP in Idah educational-zone of Kogi state due to their manifest low achievement in JSS 3 certificate examination in recent years which have been attributed to ineffective teaching methods used by teachers. Quasi- experimental involving 3x2x2 factorial matrix was designed for this study. Three research questions guided this study while three hypotheses were formulated. A structured questionnaire tagged Personal Cleanliness After Gymnastics Activities Performance "PCAGAP" consisting 20 multiple choice objective item test were distributed to 120 sampled respondents in JSS 3 from Idah educational-zone in Kogi state out of 560 target population used for data collection involving pre-test- post-test techniques. Analysis of covariance (ANCOVA), Sheffe Multiple Range-Test and-z test for two independent groups were used to analyze data collected to determine difference between two variables of sex and location. Table 1 shows significant difference between kinesthetics and expository methods on student's performances and so, H_{01} was rejected. Table 2 indicates mean score of 23.83 for kinesthetics; score of 21.21 for expository and mean score of 19.35 for revision mode respectively. This implies that kinesthetics method out performed those taught using either expository or revision methods. Table 3 presents z-Calculated table value of -3.91 and z-critical table value of 1.96. Hence, H_{03} is rejected because z-Calculated table value of -3.91 < 1.96 z-critical table value. There is significant difference between male (20.16) and female (22.86) in favor of female. Table 4 mean scores for urban is 21.06 and mean scores for rural is

20.69. As a result, there is no significant difference between urban and rural "PCAGA" mean scores. The result has led to conclusion that kinesthetics method of instruction should be incorporated into curriculum implementation compulsorily as it encourages and motivates students' interests to perform better in PCAGAP secondary education so as to keep fit always.

Keywords: Impact, Kinesthetics, Expository, Digital Storytelling, Personal-cleanliness, Motor-learning, COVID- 19.

Personal cleanliness is very expedient after motor-learning activities by washing one's skin to remove dirt, dried perspiration, dead skin cells, micro-organism and to give the body pleasant smell. Bath is necessary for every individual especially after an engagement to wash all dirt off the body straight down the drain to maintain personal hygiene, reduce spread of illness and risks of medical conditions caused by not taking care of oneself. It helps to maintain good health, increases self-confidence, promotes interpersonal relationship and prevents diseases (Nwajei, 2004). Bisgaard & Szeffler (2007) draws scholars' attention to the need for caregivers and teachers in schools to maintain clean environments in order to minimize the occurrence and spread of diseases via personal uncleanliness. It was discovered that students were at high risk for gastrointestinal diseases caused by large number of enteric pathogens and called for the training of teachers/caregivers within the school premises to provide good personal cleanliness to reduce the rate of person to person transmission. According to the Centers for Disease Control's (CDC) (2000) guidelines on hand-washing in order to stay healthy and clean insisted that children and caregivers must wash their hands with clean warm water and soap. The CDC (2002) also recommends washing of hands before eating, drinking, brushing one's teeth or helping a sick person. A part from that, it is necessary for an individual to wash hands after using the bathroom, changing diapers, touching door knobs, blowing his/ her nose, rubbing one's hands together for at least twenty seconds, rinsing the hands, drying them with a paper towel and using the paper towel to turn off the faucet and then open the door. Alternatively, it is imperative to apply ethanol alcohol-based with at least 62 percent hand sanitizer.

Empirical Framework of Related Literature Review

A review of related literature on childhood health education indicated that a lot of works on personal hygiene topics have been taught but many are reluctant to maintain good personal cleanliness (Nwajei, 2004). Hygienically, when teachers incorporate hand washing using clean water, soap, towel to wipe hands after class gymnastics exercises or motor learning activities, it will really teach children personal cleanliness which would eventually help the participants to become chorus in curtailing spread of diseases, germs and inculcate good health habits later in life according to U.S Department of Health and Human Services (2000). Furthermore, teaching learners how germs spread motivate

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them to be curious about their bodies when questions of how to develop a healthy lifestyle arises and to keep other around them healthy especially during COVID-19 pandemic era. Infact, washing hands is a very good life skill for general public and this is why alcohol based sanitizer has been recommended by Nigeria Center for Disease Control for ensuring optimal safety due to COVID-19 pandemic. Hence, it is incumbent upon teacher educators to see that proper health knowledge and habits are inculcated early enough on when, how best and with what item(s) to wash hands is impacted onto the learners through careful curriculum implementation, seminars, conferences, workshops and symposia. Germs can spread particularly through respiratory droplets of sneezing and coughing during motor-learning exercises from one person to another (Sheriff & Golding, 2002). Considering the negative effect of germs on students when a person touches droplets on the surface of desks, door knobs, cafeteria tables and thereafter touches his or her own eyes, mouth or nose before washing hands, it becomes essential to teach how best to avoid spread of germs by covering mouths, noses especially when coughing and sneezing in the public environment particularly after motor-learning/ gymnastics exercises.

Gymnastics refers to an aspect of human kinetics which include activities designed to develop principal muscles of the body as well as acquisition of skills divided into agilities and vaults (Salokun, 2005). It consists of motor-learning skills aimed at exercising one's body to keep it fit. Some of these fundamental activities are necessary to improve performances in subsequent classes mostly regarded as "warm up exercises" in human kinetics. Agilities constitute gymnastics activities performed on ground with or without gymnastics apparatus such as mats, mattresses, hoops, and so on. These activities include forward roll, backward roll, cartwheel, headstand and sit ups while vaults consist of vaulting activities done over gymnastics obstacles such as horse, buck, vaulting box and others. Examples of vaulting activities are thief-vault, through vault and astride-vaults. These activities involve leaping high and twisting of one's body (Ajala, 2002; Ongundara, 2002).

Kinetic results from motion of material bodies plus force from energy associated therewith while Kinesthetics otherwise known as Activity method of instruction is a situation in the classroom setting arranged by a gymnastics educator who mobilizes all instructional resources available to let learner actively take part in gymnastics activity (Ajala, 2002). Activity method refers to the state of being active to participate in classroom activities by learners. It stimulates learning by doing and further exerts pressure on performer to enhance creative expression of ideas that promote learner's performance. The learner becomes part and parcel of teaching- learning process. It can also be seen as a "dual teacher-learner centered mode of instruction" which enhances participations in the classroom or outside classroom activities.

Expository can also be called lecture method of instruction. Mkpa (2009) describes expository method as teacher's verbal mode of presentation of subject matter in the classroom. It uses gesticulation plus reading from manuscripts. Educator has monopoly of topic intended to be dispensed to learners during instruction while the learners listen passively, take notes or ask questions if necessary. In this method, students do not achieve maximum learning because knowledge is doled out to them by educator. Learners are also passive listeners who only jot down notes (Mkpa, 2009). It has been regarded as the oldest method of instruction adopted in Nigeria which originated from Jewish educators. An average Jewish learner learnt whatever teacher teaches by heart in order to repeat them verbatim. Expository method does not care for individual differences among students in the classroom according to Ezenweani (2006).

Digital Storytelling (DST) is a very powerful approach of instruction to build and provide a story reflecting on one's past lifestyle to enhance teaching and learning situation (Hatice&Yasemin, 2020). DST is a telling strategy used during instruction. The teacher or instructor provides information to the learners upfront without much interactions from the student-side and sometimes, they are permitted to asking or answering questions (Rajesh, 2017). Essentially, it becomes inevitable especially where and when resources are limited (Wales, 2012; Yoon, 2012 & Rajesh, 2017). A teacher may put teaching process into practice by using his/ her own stories in order to make abstract topics with conceptual content clearly understandable to promote classroom discussions to improve ongoing class interactions (Maria, 2021). It can be seen as an innovative tool for instructional technology employed by teachers and students to acquire new literacy skills. It is the teacher's role of impacting students by orally telling his pupils. There is a commonly held notion that the teacher is an embodiment of knowledge who dishes out what he or she knows to his/her pupils that are usually believed to be ignorant, bare and acquire knowledge from their teachers (Miller, 2010; Norton & Early, 2011).

Subjects that are frequently taught in this method by many teachers include History, Social Studies, Sociology, Political science, Civic Education, Health Education, Hygiene, Physical Education, Literature in English, Geography and Christian Religious Knowledge (Airutz, 2013). Students acquire listening and logical thinking skills which lead to speech development bothering on responsible behavior whereby learners are tasked to take some far- reaching decisions for their lives. For example, career choice, lifestyle, marital issues and so forth (Yun, 2013). Often, the lecturer utilizes chalk- board to illustrate his or her ideas. Additionally, real objects, projectors, pictures, posters and computers can be employed for vivid illustration during expository approach according to Thompson (2011).

No doubt, digital story-telling mode unlike expository method of instruction differs from conventional storytelling strategy due to the fact that it ensures interaction of individuals with the stories which permit them to structure their narrative not only keeping them in the position of listeners but also utilizes Information and

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Communication Technology as a way of fashioning out stories on the other hand. Definition of digital storytelling in the literature may be focused on combining the art of storytelling with many multimedia like text, image, audio, music and video for some reasons. Expository mode is by far the most commonly used while it is not very adequate. (Whitehead & Gould, 2017; Akin & Huag, 2019; Wales, 2012; Yoon, 2012 & Rajesh, 2017). Additionally, Systematic descriptive review is used as expository approach to reveal the existing situations about digital storytelling in an educational industry which involve research articles in Web of Science Database. Indeed, one can use DST to narrate about personal important events in life in order to understand the past and present Information for instructional purposes (Trump, 2017).

Statement of the Problem

Personal cleanliness after motor-learning activities are compulsory areas which questions in JSS III classes concentrate during certificate examinations in kinetics curriculum delivery. The very purpose of personal cleanliness after teaching gymnastics in JSS classes is to develop in learners vital fundamental skills. It is essential to build confidence in learners to perform more difficult tasks easily using acquired skills in examination situations while personal cleanliness is to maintain good health and give the body pleasant smell. Contrary to these expectations, students' manifest low performances in recent years particularly in JSS III certificate examinations involving Personal Cleanliness after Gymnastics activities have been attributed to ineffective instructional methods utilized by educators. Thus, Questions arises as to:

Research Question

- (1) What could be the measure of effectiveness of different methods of instructions (kinesthetics and expository methods) on students' Performances?
- (2) Can there be significant difference between male and female gymnasts mean scores?
- (3) Can there be differential significant enhancement if urban and rural students are taught with these two methods under investigation?

Hypotheses

The following hypotheses were formulated to guide the study;

Ho₁: There is no significant difference between kinesthetics and expository methods of instruction on students' PCAGA

Ho₂: There is no significant difference between male and female students' mean scorns in PCAGA using kinesthetics and expository methods in Idah Educational- Zone.

Ho₃: There is no significant difference between urban and rural students' post-test mean PCAGAP scores in using two methods of instruction.

Methodology

Design of this study is quasi- experimental involving 3x2x2 factorial matrix. As a result, it has treatment at 2 levels consisting kinesthetics and expository methods. The third one is revision mode (control group) making it 3 levels crossed by sex at 2 levels (male & female) and further crossed by school location (urban & rural). This was why three intact classes were randomly selected and assigned to three experimental treatment conditions. Utilization of intact classes permit usual class activities to remain constant without disruption so that their regular personal cleanliness after gymnastics teacher in each of randomly selected schools instruct them.

Target population for this study included 450 JSS III students in Idah educational zone in Kogi State. Sample size consisted of 120 subjects out of entire population. A cluster sampling techniques was used to randomly select an arm of JSS III from each of 3 schools. Two out of three schools were arranged for experimental treatment while a group was used as control. This arrangement allowed effective experimental management of treatment contamination and control within the period of study.

Researchers designed an instrument titled Personal Cleanliness after Gymnastics Activities Performance (PCAGAP) which was meant for assessment of students before and after experimental treatment. This was to determine effectiveness of methods under investigation. It is a 20 multiple-choice objective item test constructed by researchers based on Educational Testing Service (ETS) approach of categorizing objectives at level of remembering (knowledge), understanding (comprehension) and thinking in 2020/2021 session JSS III Gymnastics syllabus. A research assistant taught experimental group one using kinesthetics method while second research assistant taught experimental group two with expository method. Control group was taught by third research assistant without any specified method. Groups 1 and 2 had lesson notes specifically prepared for this research purpose but no lesson note was packaged for revision mode in control group.

Validity of PCAGAP was considered by three experts in curriculum studies and instruction who critical examined extent to which multiple-choice objective test items were appropriate with regard to the purpose of this study. They recommended it for use after effecting necessary corrections observed earlier during validation.

Reliability of PCAGAP was ascertained by using test-re-test reliability. Researchers administered the test to a class of 35 students outside designated area of study and after a period of two weeks of initial test administration, the same PCAGAP was re-administered to the same group of subjects. The two test administrations were collated and analyzed with Pearson Product- Moment Correlation Co-efficient statistical method. The correlation index of 'r' is .76.

Data used for analysis in the study were collected via pre-test - post-test methods. This means that PCAGAP was administered before and after experimental treatment to ascertain entry behaviors of students as well as to determine if the treatment has effected any change in their performances.

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Analysis of covariance (ANCOVA) and Scheffe Multiple Range-Test were used to analyze data to enable the researchers establish differences among the three groups while Z-test for two independent groups was used to determine significant difference between two variables used in terms of sex and location.

Results

Results of this study are presented in tables 1,2,3 and 4 based on the hypotheses tested below.

Table 1: ANCOVA for Methods of Instruction on PCAGAP

Source	Type III Sun of squares	Df	Mean Square	F-Cal.	Sig.
Corrected model	1275.59	3	425.20	64.10	.000
Intercept	170.25	1	170.25	25.67	.000
Pre	8551.38	1	851.38	128.35	.000
Groups	104.11	2	52.06	7.85*	.001
Error	809.26	122		6.63	
Total	59942.00	126			
Corrected Total	20884.886	125			

*p < .05

Table 1 shows ANCOVA summary table for methods of instruction on students' PCAGAP. Calculated F-table value is 7.85 while critical F-table value is 3.07. The calculated F-table value of 7.85 > 3.07 critical F-table value. Hence, Ho₁ is rejected. There is a significant difference among methods of instruction on students' PCAGAP.

Table 2: Scheffe Multiple Range Test for Methods of Instruction on Students' PCAGAP.

Groups/Methods	Number	Subset for alpha=0.05	
		1	2
Revision	43	19.35	
kinesthetics	11		23.83

Expository	42	21.21	
Sig.		.07.	1.00

To establish direction of difference, Scheffe Multiple Range Test was used as presented in table 2. The result indicated mean scores for kinesthetics, expository methods of instruction and control group (revision mode) as follow: 23.83, 21.21 and 19.35 respectively. The findings showed students taught using kinesthetics method out performed those taught with either expository or revision method.

Table 3: Z- test for Two Independent Mean Score Differences Between Male and Female Students in PCAGAP

Sex	No	Mean	SD	Df	Z-Cal.	Z-Cri	Remark
Male	67	20.16	4.24	124	-3.19*	1.96	H ₀ is rejected
Female	59	22.86	3.39				

* P < .05

Table 3 above indicates that Z-test calculated table value is -3.91 while Z-critical table value is 1.96. H₀ is rejected since Z-calculated table value of -3.91 > 1.96 Z-critical table value. There is a significant difference between male and female students' mean scores in PCAGAP from three methods of instruction (kinesthetics, expository & revision) used in favor of female gymnasts in kinesthetics method of instruction.

Table 4: Z-test for Two Independent Mean Scores Differences Between Urban and Rural Students in PCAGAP.

School Location	No	Mean	SD	Df	Z-Cal.	Z-Cri	Remark
Urban	68	21.06	3.92	124	0.37	1.96	H ₀ is retained
Rural	58	20.69	4.18				

* P < .05

Table 4 shows 21.06 mean score for urban while 20.69 for rural. Observation, Z-calculated table value of .37 < 1.96 calculated critical table value. Hence, H₀ is retained. The decision is that there is no significant difference between urban and rural students' post-test mean scores in PCAGAP.

Discussion

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The result obtained from table one indicated that the group taught using kinesthetics method performed best among those taught using expository method and revision mode (control group) respectively. The superior performance of students who were exposed to kinesthetics method may be due to subjects' full active participation during the lessons because of the nature of the method of instruction. Mkpa (2009) asserted that kinesthetics method stimulates learning and facilitates active creative expression of ideas by learners to improve their performances while Ezenweani (2006) felt that expository method makes learners passive listeners and take down notes during expository. According to him, students do not achieve maximally because, knowledge is doled out to them by their teachers. The findings in this study have supported those of Ajala, Amusa&Sohi (2002) that students' engagement in active activities promote and facilitate their performances in teaching- learning process.

The finding from hypothesis two showed a significant difference between male and female students' PCAGAP in their post- test mean scores. The finding corroborated and supported that PCAGAP encourage learners' active involvement to improve their performances according to Akin &Huag (2019).

The third finding obtained from H_{03} indicated no significant difference between urban and rural students' PCAGAP. Hence, hypothesis three was retained. This finding clearly showed that school location whether urban or rural does not actually influence learners' PCAGAP. The finding has supported and confirmed the assertions of Ongundara, (2002) and Ezenweani & Awuja (2009) that effective teaching and learning involve learners' active participation irrespective of the school location. Gymnastics/ motor-learning as a subject is expected to keep the body active and mind busy whenever the training process is on. The implication is that any committed and devoted gymnastics educator can help students improve their performances either in urban or rural school locations when an effective and appropriate method of instruction is utilized in such school locations. Equally, personal cleanliness is imperative soon after gymnastics exercise to wash one's skin to remove dirt, dried perspiration, dead skin cells, micro-organism and give body pleasant smell. It helps to maintain personal hygiene, interpersonal relationships, reduce spread of illness and risk of medical conditions(Sheriff & Golding, 2002).

Conclusion

Results obtained from this study had somehow drawn conclusions that kinesthetics method is much more effective and rated best among three methods of teaching used because kinetic relates to motion of material bodies which force is applied therein. Secondly, school location or sex does not influence PCAGAP especially if poor method is adopted. Purposeful PCAGAP must take students' full active participation deliberately programmed to support teacher's instructional method and students' learning environment. Also, adequate fundamental skills designed for peaceful co-existence can

yield outstanding performances in sports via PCAGAP for proper instructional or curriculum implementation.

Recommendations

- ❖ Personal cleanliness is very essential after gymnastics activities to remove dirt and give pleasant smell while motor-learning/ gymnastics is a necessity for all and sundry as it provides effective medium of arousing interest, strengthening muscles, mobilizing joints, setting circulatory organs in motion, helping to develop stamina and to avoid muscles' cramp and tear or spraining of joints. It is hereby Recommended that:
- ❖ Kinesthetics method be incorporated compulsorily into motor-learning exercises while personal cleanliness after gymnastic activities be strictly adhered to.
- ❖ Series of kinesthetics/ kinetics as fundamental activities targeted at enhancing learning outcomes and encouraging students' active participation should be introduced before PCAGAP in Pre-primary, primary, junior and senior secondary education.
- ❖ Government should fund training and retraining PCAGAP instructors particularly in Kogi State to facilitate improved students' personal cleanliness and healthy living.

References

- Akin, Dan &Huag M. L (2019) Perceptions of College Students with Disabilities, Journal of Post-Secondary Education & Disability. 32(1) 21.33
<https://www.org/professionalresources/publications/iped/archieved>.
Vol. 33.
- Airutz, M (2013). Sites of possibility: Applied Theatre or Digital Storytelling with youth. Ride – The journal of applied theatre and performance, 18 (1), 44-57
doi.org/10.1080/13569783.2012.756.169.
- Ajala J.A, Amusa L.O &Sohi, S.A. (2002) Physical Education Lagos March Press.
- Ajala, J. A, (2002) Designing Content of the Curriculum; A guide to practice Ibadan; May best Publications.
- Bisgaard, H., &Szeffler, S. (2007). Prevalence of asthma-like Symptoms in young children. Pediatric Pulmonology, 42(8). 723- 728.
- Center for Disease Control (2000). ABCs of Safety and Healthy Childcare-washing. Accessed March 6, 2008 from <http://www.cdc.gov/foodsafety/hotwash.htm>.

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Center for Disease Control (2002). Nonfatal choking-related episodes for children 0 to 14 years of age- United States Mobility and Mortality Weekly Report, 1(42), 945- 948.

Ezenweani, UL (2006) Mathematics and Classroom teaching. Abraka: University Printing Press.

Ezenweani, U.L & Awuja, AS (2009) Efficacy of Demonstration Method Alone and Combined with Advanced organizer On Student Achievement in Physical Education. Waller.

Hatice, Ciralt&Yasemi K. Usiuel (2020) A Descriptive Review Study about Digital Storytelling in Educational Context Proceedings of EDULEARNS conference, 6th – 8th July, Barcelona, Spain.

Maria S. Zafra (2021) you Systematic Review of the Literature about the Effects of the COVID-19 Pandemic on the lives of School Children. Department of Didactics of Musical, plastics and corporal expression, University of Jaen, Jaen.

Miller, L.C (2010). Make a story. Teaching writing through Digital Storytelling. USA Stenhouse Publishers.

Mkpa, N.D (2009) Teaching Methods in Curriculum Theory & Practice Abuja: Curriculum Organization.

Norton, B. & Early, M. (2011) Researcher Identity narrative inquiry, and Language teaching Research. Tesol quarterly, 45(3), 415-439. Doi.org/10.5054/2 011. 2611612 011. 261161.

Nwajei,S.D (2004) Health Education for Colleges, Universities and Practitioners. Lagos Functional Publishing Company.

Ongundabra, D (2002) Essential of Physical Education. Lagos. Extension Publication LTD.

Rajesh, K (2017) Critical understanding English by Exposition, 1st indexed by Google.

Salokun, S.O (2005) Physical Education in Nigeria: A Comparison of Physical Concepts.Prospect Benin uwe punsi & Marus Gerber.

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Sheriff, A., & Golding, J., (2002) Hygiene levels in a Contemporary Population cohort are Associated with Wheezing and atopic eczema in preschool infants. Archives of Disease in Childhood, child Health, 30(3), 210- 219.

Thompson, C. C (2011). Absent Audience Youth Identity formation in Preparation for Performance. Journal of Language Identity and Education, 10(1), 22-40. Doi:10.1080/15348458.2012.727625.

Trump D. John (2017) I am working on a new System where there will be Competition in the drug Industry (tweet) Twitter. <https://twitter.com/realDonaldTrump/status/83911000870109184>.

U.S Department of Health, Human Services. (2000) Oral health in America: A report of the Surgeon General. Rockville, MD: U.S Department of Health and Human Services.

Wales, P.(2012).Telling tales in and out of School: Youth performativity with Digital Storytelling. Ride-the Journal of Applied Theatre and Performance, 17(4),535-552.doi:10.1080/13569783.2012. 727625.

Whitehead A. & Gould Fogerit S. (2017) Yoga Treatment for Chronic non-specific low back pain. In Journal of Science and Healing. 13(4) 281-284.

Yoon, T.(2012). Are you Digital? Ways to provide Motivation for using Digital Storytelling. In International Journal of Research Studies in Educational Technology, 2(1), 1-10.

Yun, E. (2013).The use of Digital Storytelling for English learning advantages, Problems and Solutions. English language teaching. 25(1), 103-119.