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Utilization of Audio-visual Aids in the Teaching of Sports Concepts for Sustainable Development in Nigeria

Aribamikan Collins Gboyega

Department of Human Kinetics and Health Education, Bamidele Olumilua University of Education, Science and Technology, Ikere Ekiti, Nigeria

Email address:
collinsaribamikan@yahoo.com

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Abstract: This paper looked at audio-visual aids in the teaching of sport concepts for sustainable development in Nigeria. The study sought to find out whether department, levels of study, ages of students and genders influence the utilization of audio-visual aids in the day-today teaching of sport concepts and skills, thereby enabling sustainable development in Nigeria. The researcher observed that audio-visual equipment were not available for teaching concepts and skills such as hurdles, throws, games and so on. This posed challenges to sustainable and effective learning. A total of one hundred and fifty respondents were sampled for the study using purposive sampling technique. The respondents were drawn from Department of Human Kinetics and Health Education within the Bamidele Olumilua University of Education, Science and Technology, Ikere Ekiti, Nigeria. The instrument for data collection was a self-structured questionnaire. Hypotheses were formulated and tested using inferential statistics of ANOVA and t-test at 0.05 level of confidence. It was found that department influenced application of hearing and visual-aids in learning of sport skills while levels of study, age and gender did not. It was therefore recommended that Departments of Human Kinetics and Health Education should revolutionize teaching and practical classes using materials for sight and hearing aids by updating classroom facilities in the department in form of ICT by making provisions for interactive television, computers, internet and public address system that will enhance retention of concepts in the learners thereby ensuring sustainable development.

Keywords: Audio-visual Aid, Level of Study, Gender, ICT, Sports Concepts

1. Introduction

Audio-visual aids are most effective equipment for enhancing unimpeded communication and interaction among students, instructors and sport contents. Skills like ball control, throwing, rules in footballs, athletics skills and so on could be demonstrated using audio-visual aids. These equipment not only help to save the time of sport instructor but also help in encouraging and arousing desires, creativity and interest of learners and instructors. Audio video backed teaching can become a cost effective teaching method in the sense that once created it can be uploaded in libraries and on internet to be used by a great number of academic instructors, teachers and coaches [5]. In contemporary sports, a common equipment used is Video analysis to increase players and instructors' performance for individual, dual and group competitions [7]. The National Association for Sport and Physical Education [12] believes that technology such as audio visual aids can be an effective tool for supplementing instruction when used appropriately. Audio-visual based teaching is a system based on sound decision making and learning of sports concepts and skills [8].

Department refers to the Human Kinetics and Health Education in BOUESTI, where the study took place. Audio-visual will no doubt assist in teaching of sport skills, concepts and terminologies whereby through television, internet and other audio-visual aids skill are demonstrated in normal as well as slow motion to show students how the skills are executed from one stage to another, this will retain and reinforce the learning of the skills in the students.

Level of study refers to the class of students whether it is NCE I, NCE II, and NCE III or Degree I, Degree II, Degree III and Degree IV. It will be determined whether

the level of study enables them to utilize audio-visual aids in learning of sports skills.

Age has to do with years the students were born and on this study, the researcher intended to determine whether age of students influence the utilization of audio-visual aids in the learning of sports skills. Age is the length of time that a person or thing had lived or existed. Younger generations in Nigeria today are lucky to be brought up with computer especially with the introduction of mobile phones. [3] found interaction effect of age and gender to significantly influence the use of ICT.

Gender has to do with the whether a person is male or female. In Nigeria, there are roles associated with gender. Culturally males are seen to be in the lead in several sectors of the economy. The study will find out whether gender influenced the utilization of Audio-visual aids in the teaching of sports concepts in Nigeria.

1.1. Statement of the Problem

Despite the fact that sport has become globally acceptable source of income to the teeming youth and young adult and adoption of technology in almost every decision in sports. Invention of computer technology and mostly audio-visual materials have not been given proper attention and consideration in instructional process of sport skills at all levels of teaching and learning and if this is properly used, possess the capability to improve students' learning and performance in sport concepts and skills. The utilization of audio-visual aids is expected to serve as a source of information needed by the students and means of better exposition to local and foreign sport activities and competition. This is not realistic in sports teaching in Nigeria as a result of students low knowledge of audio-visual aids, its usefulness for effective optimization of their performance, learning sport skills in games, rules and regulations guiding the successful education of sport concepts and skills for both the lecturers and students in the Human kinetics and Health Education department are not met. The researcher observed that many audio-visual materials like slow motion devices, projector, interactive television, interactive boards, computers, video etc. are not readily available for teaching sport concepts such as throwing javelin, shot put, discuss, hammer throw; hurdles, game such as hockey, football, basketball, volleyball and handball; running such as sprints, middle and long distance races. This posed great danger to effective learning of students in terms of practice level and likeness for taking up career in sports in the future. Thus, the paper looked at audio-visual aids in the teaching of sports concepts for sustainable development in Nigeria.

1.2. Hypotheses

The following null hypotheses were postulated for the research work:

Ho^1 There will be no significant influence of department in the use of audio visual-aids in teaching of sport skills in the Department of Human Kinetics and Health Education, Bamidele Olumilua University of Education, Science and Technology, Ikere Ekiti.

Ho^2 There will be no significant influence of level in the use of audio-visual aids in learning of sport terminologies in the Department of Human Kinetics and Health Education, Bamidele Olumilua University of Education, Science and Technology, Ikere Ekiti.

Ho^3 There will be no significant influence of age in the use of audio-visual aids in teaching of coaching points in the Department of Human Kinetics and Health Education, Bamidele Olumilua University of Education, Science and Technology, Ikere Ekiti.

Ho^4 There will be no significant influence of gender in the use of audio-visual aids in teaching of nature and scope of sports in the Department of Human Kinetics and Health Education, Bamidele Olumilua University of Education, Science and Technology, Ikere Ekiti.

1.3. Research Design

The type of design that was used for this study was descriptive design of survey. This was considered as appropriate because descriptive study is one in which information is collected without changing the environment, this means that nothing is manipulated.

1.4. Population

The population of the study for this study included all the students both Degree and NCE in the Department of Human Kinetics and Health Education, Bamidele Olumilua University of Education, Science and Technology, Ikere Ekiti, Nigeria.

A total of one hundred and fifty (150) respondents were used for the study. This selected number of respondents represented 100% of total number of students in the Department of Human Kinetics and Health Education, Bamidele Olumilua University of Education, Science and Technology, Ikere Ekiti, Nigeria. Purposive sampling technique was used to select all samples that were used for the study.

1.5. Procedure

A self-structured questionnaire was used to collect data for the study. The questionnaire was made up of two sections, A and B. Section A was used to collect the demographic-data such as programme, level, gender and age. While section B collected data on the four hypotheses formulated for the study and it was likert scale format of response. The face and content validity of the instrument were ascertained by giving the draft of the questionnaire to two (2) experts in the field of human kinetics for correction and amendment. The reliability of the instrument was ascertained a pilot test was carried out. Split half type of reliability was used to ascertain the consistency level of the instrument. The researcher administered the research instrument to twenty (20) respondents who were not from

the Department of Human Kinetics and Health Education that was selected for the study. The responses of the respondents were gathered for analysis from this instrument. The questionnaire items were split into even and odd numbers. The odd numbers were taken as x while even numbers were taken as y. It was from the data collected that the researcher computed other parameters that were used to calculate the reliability index using Pearson Product Moment Correlation Coefficient (PPMC) formula to analyze the two (2) sets of data gathered. The reliability coefficient index obtained was 0.89.

Data were analyzed using ANOVA and t-test at 0.05 confidence level.

2. Results

Hypothesis 1: There will be no significant influence of department in the use of audio-visual aid in teaching of sport skills in the Department of Human Kinetics and Health Education, Bamidele Olumilua University of Education, Science and Technology, Ikere Ekiti.

Table 1. *ANOVA showing responses of respondents on influence of audio-visual aids in teaching of sport skills in the Department of Human Kinetics and Health Education*

Variables	Sum of squares	Df	Mean square	F_{cal}	F_{tab}	Sig.	Decision
Between Groups	4.334	3	1.407	2.73	2.68	0.21	S
Within Groups	152.741	146	1.062				
Total	159.075	149					

P<0.05

The result of the analysis in table 1 showed the influence of department in the use of audio-visual aid in teaching of sport skills. The analysis of variance revealed that F_{cal} (2.73) was greater than F_{tab} (2.68) at $p < 0.05$ level of significance. This means that there is significant influence of department in the use of audio-visual aid in teaching of sport skills in the Department of Human Kinetics and Health Education. Hence, the null hypothesis was rejected

Hypothesis 2: There will be no significant influence of level in the use of audio-visual aids in teaching of sport skills in the Department of Human Kinetics and Health Education, Bamidele Olumilua University of Education, Science and Technology, Ikere Ekiti.

Table 2. *ANOVA showing responses of respondents on influence of level in the use of audio-visual aids in teaching of sport skills in the Department of Human Kinetics and Health Education.*

Variables	Sum of squares	Df	Mean square	F_{cal}	F_{tab}	Sig.	Decision
Between Groups	4.222	3	1.307	1.33	2.66	0.27	NS
Within Groups	154.611	146	1.059				
Total	158.833	149					

P<0.05

The result of the analysis in table 2 shows the differences in the perception of students in terms of students' level. The analysis of variance revealed that F_{cal} (1.33) was less than F_{tab} (2.66) at $p < 0.05$ level of significance. This means that there is no significant influence of level in the use of audio visual aid in teaching of sports terminologies in the Department of Human Kinetics and Health Education, Bamidele Olumilua University of Education, Science and Technology, Ikere Ekiti. Hence, the null hypothesis was upheld.

Hypothesis 3: There is no significant influence of ages in the use of audio-visual aids in teaching of sport skills in the Department of Human Kinetics and Health Education, Bamidele Olumilua University of Education, Science and Technology, Ikere Ekiti.

Table 3. *ANOVA showing responses of respondents on influence of ages in the use of audio-visual aids in teaching of sport skills in the Department of Human Kinetics and Health Education, Bamidele Olumilua University of Education, Science and Technology, Ikere Ekiti.*

Variables	Sum of squares	Df	Mean square	F_{cal}	F_{tab}	Sig.	Decision
Between Groups	4.663	2	2.331	2.26	2.66	0.11	NS
Within Groups	151.931	147	1.034				
Total	156.593	149					

P<0.05

The result of the analysis in table 3 shows the differences in the perception of students in different age groups. The analysis of variance revealed that F_{cal} (2.26) was less than F_{tab} (2.66) at $p < 0.05$ level of significance. This means that there was no significant influence of ages in the use of audio-visual aids in teaching of sport skills in the Department of Human Kinetics and Health Education. Hence, the null hypothesis 3 was upheld.

Hypothesis 4: There is no significant influence of genders in the use of audio-visual aids in teaching of sport skills in the Department of Human Kinetics and Health Education, College of Education, Ikere Ekiti.

Table 4. *T-test analysis of responses of respondents influence of genders in the use of audio-visual aids in teaching of sport skills in the Department of Human Kinetics and Health Education, Bamidele Olumilua University of Education, Science and Technology, Ikere Ekiti.*

Variable	N	Mean	SD	Df	$t_{cal.}$	$t_{cal.}$	Decision
Male	62	1.95	0.93	148	1.61	1.96	NS
Female	88	2.22	1.03				

$P < 0.05$

Table 4 shows the result of analysis of responses of students on genders' influence in the use of audio-visual aids. The table revealed that mean rating for male students (1.95) was less than the mean rating for female students (2.22) with a mean difference of (0.27). The t-test revealed that t-calculated (1.61) was less than the critical t-value (1.96) at the 0.05 significance level. Hence, the null hypothesis was upheld. This means that there was no significant influence of gender in the use of audio-visual aid in teaching of nature and scope of sports in the department of human kinetics and health education, Bamidele Olumilua University of Education, Science and Technology, Ikere Ekiti. Hence, the null hypothesis was upheld.

3. Discussion

Findings of this study showed that department influenced the use of audio-visual aids in teaching of sport skills in Department of Human Kinetics and Health Education. The subject of audio-visual aids has taken an advanced, practical oriented and need demonstration in human kinetics and sports. No doubt Human Kinetics and Health Education departments of tertiary institutions should make provisions for availability and utilization of audio-visual materials. [1] Stated that audio visual equipment that could be used to facilitate teaching of sports concepts include digital camera, multimedia, video computers, teleconferencing and projectors. This is in line with [13] assertion that audio-visual aids were used in the field of teaching sports such as volleyball, basketball, jumps, football, field and track events etc. since it was shown that using audio-visual aids has a significant and effective role in teaching difficult sport skills. [13] also stated that provisions of audiovisual materials by Department of Human Kinetics and Health Education to be used in teaching sports skills, it enables each learner to depend on his own learning and been proficient in motor skills, as the movement experiences that includes the teaching steps, with different and graded difficulty levels, which he/she has to carry out to achieve the desired goals.

Another finding of this study revealed that levels do not influence the use of audio visual aid in teaching of sport skills level in the Department of Human Kinetics and Health Education. Hearing and visible aids provide learners with a substitute to classroom environment and frees the instructor from handling the whole process that is better handled by the equipment when learning sports terminologies. This in contrast with the findings of [10-11] that students can observe and listen to the mechanics of movements in slow motion and learn effectively with the help of audio-visual aids. Those technologies can help Human Kinetics and sports learners to assess performance within a time and without much efforts through calculation, formulas, and allow them to produce and customize individualized fitness plans, as well as offering many other uses. Using computers not only enhances the quality of documentation but also saves time and operational expenses for sport organizations. [3] found that utilization of audio-visuals in form of ICT facilitates documentation of athletes for competitions by making it possible for athletes in far places to register without physical presence and having to travel long distances. [14] also stated that audiovisual-aids in sport is an interdisciplinary discipline that has its goal in combining the theoretical as well as practical aspects and methods of the areas of informatics (terminologies) and sport science. Using the audio-visual aids, the students at all levels can update the recent technological improvement in sport training, changes in rules, to download the rules from the internet authorities, to do research and so on. The internet also affords students, athletes, coaches and administrators the opportunity to intimate the outside world with what they can showcase, thereby linking them with counterparts across the globe and as well as those on the outside world can interact with students, athletes, teachers, coaches and officials on the internet for exchange of ideas, skills, tactics, techniques and information [4].

Findings from the study revealed that ages do not influence the use of audio-visual aids in teaching of sport skills in the Department of Human Kinetics and Health Education. This implied that all students irrespective of age utilize audio-visual aids in learning. [2] found that ages influence utilization of audio-visual in the teaching of sports. Concepts as age was found to be a correlate of utilization of audio visual aids as young adults tend to take interest in new innovations. The age of internet confers greater interactivity, connectivity and flexibility to the creation, dissemination and use of audio-visual aids. Coaching points in football such as lean forward and over the ball, knees bent, on the balls of feet, relax body, balance, keep ball close, use body feints, change speed and direction and use body to shield/protect ball can all be effectively learn using audio-visual aids. Thus, ages of students are very crucial in predicting how the use of audio-visual aids work in the teaching of coaching points among students. Thus, the finding of the study contradicted with the finding of [15] that the ages of learners have a great role to play in enhancing audiovisual aids interactivity, connectivity and flexibility to the creation, dissemination and use of audio-visual aids in reinforcing learning of coaching points. It is apparent at this juncture that sophistication of teaching and learning aids is closely knitted with technology

advancement. Also, [6] asserted that with the use of effective learning materials including audio-visual aids in enhancing teaching and learning, and visual presentation helped differentiating primary and secondary information sources in approaching questions requiring higher thinking skill in coaching points among students who are fresher in tertiary institutions.

Finally, findings from this study implied that genders do not influence the use of audio-visual aids in teaching of sport skills level in the Department of Human Kinetics and Health Education. Formerly, female students were neglected in sports and the majority of studies were conducted only with the male students. Everyday activities of children and adolescents represent important developmental opportunities that serve as a tool for socialization, cultural knowledge and skill acquisition. [2] found that male students had better knowledge of audio-visual aids than female students in the teaching of sports concepts. Although it was noted that females are gradually closing the gap. Irrespective of the arguments, gender is a difference factor that leads to unequal outcomes and undergraduate students learn this inequity in their years of academic studies. This is in contrast to the finding of [9] that females have been shown to be more influenced by the visual signal in audio-visual (AV) teaching of sports related skills. Decreasing differences between feminine and masculine sports is to a certain degree as a result of the social philosophy of activists/reformers who try to declassify traditional sports to the masses of women and also a result of feminists' critique of positivistic traditions in sport psychology. The main aim of a sport student who tries to actualize the learning process is to reduce the frequency of making wrong movements and increase the frequency of making correct movements. It is therefore necessary for the individual to know the mistakes he has made and to be informed about how to correct them; that is, the movement of the individual. The term 'display' is not limited to the visual modality (e.g. screens or projectors), but also refers to the auditory modality (e.g. headphones or speakers).

4. Conclusion

In line with the findings of the study, it was concluded that: Department influenced the use of audio-visual aids in teaching of sport skills while levels of study, ages and genders do not influenced the use of audio-visual aids in teaching of sport skills in the Department of Human Kinetics and Health Education.

5. Recommendations

The researcher made the following recommendations based on the findings of the study:

Department of Department of Human Kinetics and Health Education should update facilities in the department and make provisions for audio-visual aids to assist the academic members of staff and students. This will help in developing and improving teaching and learning experiences of lecturers and students in terms of sports skill levels. Departments of Department of Human Kinetics and Health Education should revolutionize teaching and practical classes using audio-visual aids by updating the teaching and learning facilities in the department in form of ICT by making provisions for interactive television, computers, internet and public address system that will enhance retention of concepts in the learners thereby ensuring sustainable development.

University managements in Nigeria should introduce the use of audio-visual aids in the teaching of students in the Department of Human Kinetics and Health Education right from year one (NCE and Degree) so as to help the students acclimatize with its usage in the teaching of sport skill levels in the Department of Human Kinetics and Health Education. This will promote the sharpening of talents in sports.

Lecturers in the Department of Human Kinetics and Health Education should ensure that audio-visual aids are utilized in teaching of coaching points in such a way that students irrespective of their ages can be accommodated and benefit from its usage in advancing their knowledge on coaching concepts.

Lecturers should ensure that when using audio-visual aids in teaching sports concepts and skills, equal access should be given to students irrespective of genders for effective and efficient instructions in teaching and learning of sports concepts therefore making learning more fun, meaningful and effective.

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