

# Effect of Power–Point Instructional Strategy on Junior Private Secondary School Students Achievement in Social Studies

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## Abstract

The paper is all about the effect of PowerPoint Instructional strategy on selected Junior Private Secondary School Students' achievement in Social Studies. The paper examined various definitions of PowerPoint by different scholars and authorities and all traced the origin of PowerPoint dated back as 1987. The existence of PowerPoint was traced to Robert Gaskins which was originally called 'Presenter' and released under a company called 'Forethought'. The effects of PowerPoint were vividly discussed, to show us the extent to which it has recovered its achievement in the teaching – learning process. Effect of PowerPoint instructional Strategy on selected Junior Private Secondary School Students' achievement in social studies was determined using a pretest, post-test quasi-experimental design. Four private secondary schools were selected from different local government areas in Ibadan metropolis. The research Instrument used in this research work was Social Studies Achievement Test (SAT). A pre-test was conducted for the two groups (group A and B) after which the researcher taught the two groups with different approaches but the same topics. Group A was taught with PowerPoint presentation and group B was taught with conventional method. The Instrument Comprised of fifteen (15) test items with five options a to e. After the lesson, the same test were administered to both groups and the researcher obtained data from the instrument.

**Keywords:** PowerPoint, Instructional strategy, social studies, achievement.

**DOI:** 10.7176/JEP/12-1-01

**Publication date:** January 31<sup>st</sup> 2021

## 1. Introduction

For effective teaching and learning, teachers and learners ought to employ different ways and means which will appeal to the senses of the students in the classroom. Necessary stimuli must be provided by the teacher in order to elicit the desired response from the students. It is well known among educators that the educational experiences in active participation with concrete examples being used aid learning than abstract experiences. Information and Communication Technology materials are no doubt most effective in stimulating these senses. These senses include hearing, smelling, feeling and sight.

Saye, 1998, opines that “to achieve the desired outcomes with the utilization of technology, the teaching of the Social Studies courses should focus not only on making teachers competent at using such technology, but at the same time, promote strategies that enable the integration of technology that to enhances teaching and learning of the subject. According to Jaber (1997) “the importance of instructional media for both teachers and students cannot be overemphasized. In Social Studies, the use of instructional media is essential to support learning because Social Studies is concerned about natural and social phenomena which cannot be easily expressed without the support of graphics map, video, pictures and so on.

Curzon (1997), points out that “using instructional medial in Social Studies classroom widens the channels of communication between teachers and their students. The instructional abilities allow the growth of specific learning abilities and enhance intellectual skills and motor skills”.

In the case of computer – based instructional media, Davidson (1996), stated that the uses of such media in Social lesson Imperative as it makes a valuable contribution to the quality of student learning. Such media can be used in several ways in Social Studies lessons. Power Point Presentation, for instance, can be used to present geographical issues and data logger for collecting weather data electronically. When power-point burst onto the presentation scene back in 1987, it wasn't the only software available on the market. But it was the best. It's emergence coincided with a surge in personal computer purchasing and the use of computers in business environments. With business owners hungry for the best presentation software available, power-point came out on top of its predecessors.

But its domination wasn't immediate. Although widely believed to be Bill Gate's brainchild, power-point was actually developed by Robert Gaskins, was originally called 'Presenter' and released under a company called 'Forethought'. In a market where consumers had a host of other established programs to choose from, power-point initially struggled to set itself apart from its competitors. The graphics, bulleted lists and slideshows that are so characteristic of power-point nowadays, were not actually power-points own, original ideas.

Microsoft sensed power-point potential regardless. Seeing the explosion in business software and office automation, Microsoft seized the opportunity and bought the application for \$14 million. They developed the

software further, taking it to new heights with the release of power-point 97. By eliminating the need for programming knowledge or specialist skills, power-point 97 granted personal computer users access to filmesque features like transitions and animations.

From version 97 onward, power-point went through major upgrades with very release. A version was released on average every two years, spreading through offices like wildfire. The 2000 version introduced a clipboard feature that could hold multiple objects at once. In 2002, power-point transformed its animation engine, allowing users to take advantage of advanced, custom animation. In 2011, they took the upgrade to another level with new background features and special effects. By 2012, after all the advancements Microsoft announced their achievement of 95% of the presentation software market share.

## 2. LITERATURE REVIEW

Microsoft power-point is a presentation program developed by Microsoft. It is a part of the Microsoft Office system which is widely used by business people, educators, students and trainers. As a part of the Microsoft Office suite, Power-point has become the world's most widely used presentation program. It is a complete presentation program that allows teachers to produce professional – looking presentation in EFI Classroom ( Segunde Salazar. 2011). In parette et al. (2009) Research suggests that computer and other technologies are also useful to adopt and motify curriculum materials for students who are at risk, thus equalizing the learning Opportunities for all students, so education professional, must begin to focus on how education professionals can best use them in the classroom, especially for students who are at risk. Kanika (2013) shows that Powerpoint is one of the main teaching tools that play an integral role in promoting the learning and teaching process, these contributing to the field of education as a whole. Application Microsoft Power-point provides presentations with a visual element, which can be used in the field of education to great effect.

Ozoslar & Maden (2011) concluded in their study that students learned better if the Course material was presented through some visual tools. They, also, reported that teachers believed that Power-point presentations preferred them over the textbook presentations; she believed that the student fonts and visual effects stepp-Greany (2002), reported , in her study, a number of benefits for students related to general use of technology in Classroom including increased motivation, improvement in self – concept and mastery of basic skills, more student – centered learning and engagement in the learning process.

Shock 2009, Power-point is a complete presentation graphics package. It gives you everything you need to produce a professional looking presentation. Power-point offers word processing, outlining, drawing, graphing and presentation management tools all designed to be easy to use and learn.

Therault (2010), Power-point is a visual and graphical application, primarily used for creating presentations. With Power-point, you can create, view and present slide shows that can create, view and present slide charts, videos and much more.

Laura 2000, Power-point is a software tool designed to assist with the creation and delivery of presentations that is often used as a slide show, providing text and picture to help audience/learners understand what the speaker is telling them,

Power-point use a slideshow presentation program that's part of the Microsoft office suite of tools. Power point makes it easy to create, collaborate, and present your ideas in dynamic, visually compelling ways.

Microsoft Power-point is a presentation program, created by Robert Gaskins and Dennis Austin at a software company named forethought international. It was released on April 20, 1987. Microsoft acquired Power-point for \$14 million three months after it appeared. This was Microsoft's first significant acquisition and Microsoft set up business unit for Power point in Silicon Valley where forethought had been located, it offers users many ways to display information from simple presentations to complex multimedia presentation.

Sometimes abbreviated as PP or PPT, Power-point is a Microsoft presentation program that creates a slideshow of important information, charts and images to play during a presentation. It is most often used for business and school presentation.

### 2.1 EFFECTS OF POWER POINT INSTRUCTIONAL STRATEGY ON STUDENTS

The evidence that PowerPoint presentation influence learning is largely anecdotal. Bryand and Hunton (2002) state that the degree of improved learning is a function of a complex set of interaction among learn and medium attributes. Mason and Hlynka (1998) state that PowerPoint helps structure the content and processing of a lesson or lecture. Aiding note-taking (and thus facilitating study) is another purported advantage of using PowerPoint (Cook, 1998). Harrison (1999). Argues that power – point enhances instruction and motivates students to learn. To improve student achievement in Technology related subjects in Nigeria, It is necessary to have a paradigm shift and join the developed World in embracing Constructivist approach to teaching and learning. Such approach should be used in the Country's educational system beginning from the have School level up to the University. The use of PowerPoint slides for teaching is one of the right direction to achieve such shift (UZ, Orhan & Bilgic, 2010)

Proponents of PowerPoint argued that it increases visual quality in the learning process. They also contend that it takes less time to present a subject matter; therefore, more materials can be covered in the Classroom. (Tuft, 2003). Supporters of PowerPoint believe that it helps to keep students' interest and attention on the lecture (Szabo & Hastings 2000), improve students' learning (Lowry 1999), and aids explanations of complex illustrations (Apperson, Laws & Scepansky 2006). Creed (1997) describes PowerPoint as a teacher – Centered Instructional tool that nourishes teacher – controlled lectures.

Powerpoint was developed to improve learning by providing the means to develop presentations that are more structured and interesting to audience (Amare, 2006). Reynolds and Baker (1987) find that presenting materials on a Computer increased attention and learning, and learning increased as attention increased. According to Akkoyulu and Yilmaz (2005) the information found on the projector screen during PowerPoint presentation is always attractive to the learners. During the lesson the words or the concepts that should be emphasized could be presented visually to facilitate the increase in the attractiveness of the information. However, one of the most powerful features of Powerpoint is the ability to easily add interactivity without complicated programming.

PowerPoint is widely available and easy to learn. With a little bit of time and creativity, teachers can create interesting, fun materials to reinforce learning. After slides have been created, they can be saved on a disk to be used on multiple Computers. Many students are motivated by computer assisted instruction and, for some students who have decreased motor, cognitive, or learning abilities, PowerPoint opens up opportunities for independent skill practice that would otherwise require adult assistance. Presentation can be sent home for additional practice for students who have PowerPoint or PowerPoint viewer available. Teachers need only to spend a little time learning the program features and then Open their imaginations to the possibilities that powerpoint provides for creating materials to enhance instruction for their students Coleman (2009)

## 2.2 RESEARCH HYPOTHESES

1. The following hypotheses were formulated to guide the study:

H01: There is no significant difference between the mean scores of students taught using power point and those using conventional method.

H02: There is no significant difference in the mean achievement score of male students and female students taught using power point presentation.

H03: There is no significant difference in the mean scores of female students taught with PowerPoint presentation and other female students taught with conventional method.

H04: There is no significant difference in the mean scores of male students taught with PowerPoint presentation and other female students taught with conventional method.

## 3. METHODOLOGY

The study adopted a pretest, post-test, control group quasi-experimental design to determine the effects of PowerPoint instructional strategy in the

Teaching and learning of social studies in some selected private schools in Ibadan metropolis.

### 3.1 SAMPLE AND SAMPLING TECHNIQUE

Four private secondary schools were selected from different Local Government areas in Ibadan metropolis. The following Private Secondary Schools were chosen for the research work.

- (1) Adesina College, Ibadan
- (2) Sunshine High School
- (3) Orita-mefa Model School, Ibadan
- (4) International School, Ibadan

### 3.2 RESEARCH INSTRUMENT

Research Instrument used in this research was social studies Achievement Test (SAT). A Pre-test was conducted for the two groups (group A and B) after which the researcher taught the two groups with different approaches but the same topics. Group A was taught with PowerPoint presentation and group B was taught with conventional method.

The Instrument comprised of fifteen (15) test items with five options, a to e. After the lesson, the same test were administered to both groups and the researcher obtained data from the instrument.

## 4. RESULTS

Analysis of the data collected in the Course of study, For easy understanding of the interpretation of data, the results are presented in tables and followed by the interpretation. The data collected were analyzed using descriptive statistics and t – test statistical analysis.

#### 4.1 DESCRIPTIVE STATISTICS

Table 1.1: Descriptive statistics of pre-test and post test series for:

- (i) Population studies and family life Education knowledge  
 (ii) Human Trafficking and Environment knowledge according to treatment.

GROUP	N	KNOWLEDGE ON POPULATION STUDIES AND FAMILY EDUCATION				KNOWLEDGE ON HUMAN TRAFFICKING AND ENVIRONMENT			
		PRE-TEST		POST TEST		PRE-TEST		POST - TEST	
		X	SD	X	SD	X	SD	X	SD
Environment	80	49.13	16.24	61.38	16.45	14.25	3.75	15.13	3.82
Control	80	42.15	16.09	49.46	13.51	14.06	4.00	12.96	3.38

Table 1.1: Present the descriptive statistics on knowledge of population education, family life education, Human trafficking and Environment scores according to treatment.

i. For the knowledge on population studies and Family Education of the students that were taught using Power-point presentation and those that were taught using conventional means. The table reveals that the students in the experimental group had a pre-test knowledge mean score of 49.13 and a post-test knowledge mean score of 61.38. This shows an increase in post-test knowledge score over their pre-test knowledge mean scores. On the other hand, the pre-test knowledge mean score for the control group was 42.15 and the post-test knowledge group was 49.46. This also indicates an increase in post-test score of the control group over pre-test knowledge mean scores.

ii. For the knowledge on Human Trafficking, and Environment, the table above shows that students in the experimental group had a pre-test mean score of 14.24 and a post-test mean score of 15.13. This reveals a slight increase in the post – test attitude mean scores of the experimental group. In the control group the students had a pre-test attitude mean score of 14.06 and a post-test attitude mean scores of the control group. It could be observed that while the experimental group performed better in the knowledge of population studies human trafficking, environment and Life Education tests, the performance of the control group declined.

#### 4.2 RESEARCH HYPOTHESES TESTING ANALYSIS:

##### HYPOTHESES 1

1. (a) There is no significant difference between the mean scores of students taught using Power-point and these taught using conventional methods on population studies and Family education.

##### PAIRED SAMPLES T – STATISTICS

	Mean	N	Standard deviation	Df	T-cal	T-sig	Remarks
Experimental	49.13	80	16.24	78	18.66	0.000	Ho is rejected
Conventional Method	42.15	80	16.09				

##### DISCUSSION OF RESULTS

**Decision rule:** If the t –test probability value is less than 0.05 reject  $H_0$ .

**Decision:** Since t – test probability values is less than 0.05 ( $p=0.000<0.05$ ) therefore  $H_0$  is rejected and conclusion was made that there is a significant differences between the mean score of students that were taught using Power-point Presentation (Experimental Group) and those taught using conventional method (control group) in Social studies in Secondary School.

- (b) There is no significant difference between the mean scores of students taught using Power-point and those taught using conventional methods on knowledge of human trafficking and environment.

##### PAIRED SAMPLES T – STATISTICS

	Mean	N	Std Deviation	Df	T- cal	T-sig	Remarks
Experimental	55.13	80	4.24	78	4.66	0.013	$H_0$ is rejected
Conventional Method	42.96	80	2.96				

##### DISCUSSION OF RESULTS

**Decision rule:** If the t – test probability value is less than 0.05 reject  $H_0$  if otherwise do not reject  $H_0$ .

**Decision:** Since t-test probability value is less than 0.05 ( $p=0.013<0.05$ ) therefore  $H_0$  is rejected and conclusions was made that there is a significant differences between the mean score of students that were taught the knowledge of human trafficking environment using Power-point Presentation (Experimental Group) and those taught with conventional method (Control Group) in Social studies in Secondary School.

Descriptive statistics of pre-test and post-test scores for both male and female students that were taught using Power-point presentation on:

- i. Population studies and Family life Education Knowledge.
- ii. Human Trafficking and Environment Knowledge according to Treatment.

Group	N	Knowledge on Population				Knowledge on Human Trafficking and Environment			
		Pre-test		Post-test		Pre-test		Post-test	
		X	SD	X	SD	X	SD	X	SD
Experimental	42	47.66	16.05	59.25	11.05	44.04	14.08	55.90	13.76
Control	38	43.61	16.79	51.59	11.78	37.26	13.66	49.18	13.77

Table 2 shows that the male students obtained post-test mean score in knowledge of population studies and family Education the X of 59.25 but with post-test mean score in knowledge on human trafficking and environment of 55.90 for male respectively while the female studies obtained X of 51.59 and 49.18 in knowledge on population studies and family education and that of human trafficking and environment respectively. The table also reveals that male students had a pre-test knowledge mean score of 47.66 and a post-test knowledge mean score of 59.25 showing a marginal increase in the post-test knowledge scores over the pre-test scores. For the female students, the table reveals that the pre-test knowledge mean score was 43.61 and post-test score was 51.59. This also shows that there was a marginal increase in the post-test knowledge scores of the female students over the pre-test scores.

#### HYPOTHESES 2

There is no significant difference in the mean achievement scores of male students taught using Power-point Presentation.

#### PAIRED SAMPLES T – STATISTICS

	Mean	N	Std. Deviation	Df	T-cal	T-sig	Remarks
Male	57.58	48	16.352	78	15.580	0.001	Ho is rejected.
Female	50.39	32	14.362				

#### DISCUSSION OF RESULTS

**Decision rule:** If the t-test probability value is less than 0.05 reject  $H_0$  if otherwise do not reject  $H_0$ .

**Decision:** Since t-test probability value is less than 0.05 ( $p=0.001 < 0.05$ ) therefore  $H_0$  is rejected and conclusion was made that these is a significant differences between the mean score of male and female that were taught using Power-point Presentation (Experimental Group) in Social Studies in Private Secondary School.

#### HYPOTHESES 4

There is no significant difference between the male students taught with Power-point Presentation and other male students taught with conventional method in Private Secondary Schools in Ibadan metropolis.

#### PAIRED SAMPLES T - STATISTICS

	Mean	N	Std. Deviation	Df	T-cal	T-tab	Remarks
Experimental (Male)	53.23	42	16.24	40	11.23	0.030	Ho is rejected
Conventional (Male)		39.17	54				

#### DISCUSSION OF RESULTS

**Decision rule:** If the t – test probability value is less than 0.05 reject  $H_0$  if otherwise do not reject  $H_0$ .

**Decision:** Since t-test probability value is less than 0.05 ( $p = 0.030 < 0.05$ ) therefore  $H_0$  is rejected and conclusion was made that there is a statistical significant difference in the mean scores of male students taught with Power-point Presentation and other males students taught with conventional method with the mean difference of 14.06.

### 5. SUMMARY OF FINDINGS

The result of this study is presented as follows:

1. There was a significant effect of treatment on the mean post test knowledge of students exposed to the Power-point Presentation based strategies (descriptive analysis) table showed that students exposed to Power-point Presentation of some difficult concept in Social Studies such as population studies and family education had higher adjusted post test mean score than the students taught through the Direct teaching method. This shows that the participatory learning groups had significant post test knowledge of population studies and family education issues than the direct teaching method group.
2. There was a statistical significant main difference in the mean post test knowledge scores of students exposed to the Power-point Presentation of some difficult concept in Social studies such as environment and

human trafficking and those in the control groups.

However, the descriptive analysis indicated that students that were exposed to the PPP had higher adjusted mean score and thus could be adjusted to have better knowledge on human trafficking and environment issues than that were taught through the direct teaching method (conventional method)

## 6. Conclusion

Based on the findings of this research work, the following were revealed:

using Power-point Presentation (Experimental Group) and those taught with conventional method (Control group) in Social studies in Secondary School.

- (a) Method of teaching and the use of Power-point Presentation affect students' achievement greatly.
- (b) The use of computer and computer packages such as computer assisted instruction software, Instructional Films, Electronic Encyclopaedia can go a long way in improving students' performance.
- (c) The use of instructional tools and materials such as multimedia computer, overhead projector can help stimulate, arouse and sustain students' interest throughout the period of the lesson.
- (d) Computer aids individual and group learning.

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