American Journal of Education and Information Technology
2025, Vol. 9, No. 2, pp. 125–134
https://doi.org/10.11648/j.ajeit.20250902.17

Research Article

Perception of Lecturers on the Use of Digital Tools for Professional Development

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Abstract

This study examined lecturers' perceptions of using digital tools for professional development in universities in Enugu State, Nigeria. The study adopted a research and development (R&D) design involving 53 participants, comprising 32 male lecturers and 21 female lecturers from both public and private universities offering computer education. The instrument for data collection was a questionnaire, which was administered and retrieved by the researcher with the help of six research assistants who were properly briefed on the content of the questionnaire and its administration to ensure that the questionnaire was properly administered. Data were collected using validated instruments with Cronbach's alpha reliability coefficients of 0.91 and 0.84. Mean ($\bar{x}$) with Standard Deviation (SD) was used to answer each of the research questions. And each of the hypotheses was tested using t-test statistics at a 0.05 level of significance. The analysis was computer-based with the use of the Statistical Package for Social Sciences (SPSS) to analyze the respondents' ratings. The t-test was used because of the sample size, and also the researcher made use of two groups. Mean with 2.50 and above was regarded as Important (I) while a mean value below 2.50 was regarded as Of Little importance (OLI). The null hypotheses were rejected when the significance level was less than 0.05, and were not rejected when the significance level was more than 0.05 level of significance. Findings revealed that lecturers perceived digital tools, particularly Microsoft PowerPoint, as vital for improving teaching effectiveness, presentation quality, and learner engagement. However, limited technical competence, erratic power supply, and inadequate infrastructure hindered effective utilization. The study concluded that the adoption of digital tools enhances instructional delivery and professional growth among lecturers. It recommended adequate training, provision of reliable electricity, and institutional support to promote sustainable digital competence among university educators in Nigeria.

Keywords

Computer Studies, Digital Tools, Tertiary Institution, Microsoft PowerPoint, Professional Development

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Received: 27 October 2025; **Accepted:** 7 November 2025; **Published:** 9 December 2025

1. Introduction

Education is a deliberate endeavour aimed at attaining specific objectives, including the transfer of knowledge, the development of skills, and the cultivation of character. It functions as a tool for national advancement, whereby the generation and synthesis of ideas, and the interplay between individuals and ideas, become integral components of this educational enterprise [20]. Education serves as a vital means for individuals to acquire the knowledge and competencies necessary both to understand and engage with their environment for personal survival and to position themselves meaningfully in society [22]. Education functions as a vital mechanism by which latent capacities within individuals are transformed into tangible skills and knowledge, enabling them to train in a profession and secure a livelihood [13]. Education plays a vital role in shaping individuals' habits and attitudes, enabling them to become responsible citizens and approach work and life with the right mindset [14].

Tertiary education is the third phase of education, which follows immediately after secondary education. Tertiary institutions all over the world continue to seek better ways of improving the quality of services they offer to their students, especially in the area of instruction delivery. These services are facilitated through the application of computer technology. For example, in the face-to-face teaching and learning process, digital technologies can be used to present teaching and learning materials to students for better understanding, which often results in an increase in their academic achievement [18, 19]. It is also well recognized that the modern education system all over the world hardly operates without the use of information and communication technologies (ICTs) such as computers, smartphones, projection devices, internet facilities, among other digital devices. Recent research indicates that computer-based tools and technologies have become deeply embedded in higher-education systems, particularly shaping how instruction is delivered and experienced [11]. As innovative digital tools become increasingly embedded in classrooms and training venues, teachers are leveraging these technologies to communicate more effectively and support students' learning processes more efficiently [3]. The software Microsoft PowerPoint, a component of the Microsoft Office suite, is widely leveraged as a visual-aid tool that enables presenters to structure and convey their ideas to an audience coherently and compellingly [1]. PowerPoint software, which was previously known as "Presenter," was officially acquired by Microsoft Corporation Inc. from the American computer software company in 1987. It has different versions based on the date of release. The earlier version of PowerPoint for the Windows operating system (OS) includes PowerPoint 2.0 to 2003, while the newer version includes PowerPoint 2007 to 2019. It is expected that subsequent or future versions will be equipped with more sophisticated or advanced features to attend to the emerging needs of users.

According to [17], Microsoft PowerPoint enables anyone to quickly produce, with little practice, beautifully laid out presentations as on-screen shows. Secondly, Ms. PowerPoint uses a collection of multiple media (multimedia) sources, text, graphics, audio, video, and animation to create powerful presentations. Contemporary studies emphasise that one of the core strengths of presentation platforms like Microsoft PowerPoint lies in their capacity to integrate varied media formats such as graphics, audio, quotations, music, video, and animations and to link directly to web pages or simulations, thereby enabling instructors to design more dynamic and engaging lessons [10]. Research indicates that when information is supplemented with well-designed visual elements, the immediate impact on learners' retention is substantially greater and, notably, even after three days, recall of visually enhanced content remains significantly higher in comparison to verbal-only presentations. [8] found that early childhood learners demonstrated improved memory retention when instruction incorporated audiovisual media.

The use of PowerPoint in public presentations has been advocated all over the world. Recent studies emphasise that presenters can no longer afford to mumble through conferences and workshops; clear and effective delivery is now regarded as a professional imperative [5]. Presenters who present their works without PowerPoint or any other presentation tools often find it hard to convince the audience. In most cases, the listeners are distracted by discussing, sleeping, or making noise, waiting for the presentation to be over. In addition, most presenters who present with PowerPoint lack the skills required to design good and attractive presentations. These presenters often copy text and paste it into PowerPoint slides as if it were a word processing document; the only difference is that digital technologies are used to make the presentation. Evidence from recent reviews of remote and face-to-face instruction in Nigerian universities indicates that many lecturers' classroom presentations contain significant weaknesses, for example, poor preparation, limited use of appropriate teaching media, and ineffective online teaching practices. Problems observed across institutions, including those in Enugu State [15].

Gender factor describes behaviours and attributes expected of individuals on the basis of being born either a male or a female [2]. Gender may be seen as a challenge in the computer skills needed for lecturers. It is described as the biological sex of individuals in terms of being male or female. In Nigerian society, men and women experience disparities in the types of roles they are expected to perform, the tasks they engage in, the resources they can access or control, and the skills they are able to acquire. [6]. A study by [16] reported that female students possessed efficient computer skills and used social media more than their male counterparts. [4] contend that male lecturers are found to be more active and possess computer skills than their female counterparts.

Microsoft Office PowerPoint, as one of the leading presentation software programs in the market, is essential in aiding educators, administrators, and students in making effective public presentations. In university, PowerPoint is used in conjunction with other multimedia facilities (such as computer system, multimedia projector, interactive whiteboard, and speakers), to facilitate classroom instructional delivery. In universities, educators/researchers are encouraged to utilize multimedia technologies to teach in the classroom as well as present their research papers during academic conferences and inaugural lectures. Many lecture rooms and computer laboratories in Nigerian universities, especially in Enugu state, are equipped with multimedia projectors and smart board technologies, for the purpose of teaching and learning, yet only very few lecturers utilize them for instructional delivery despite the fact that their use has been widely advocated.

It is also a well-known fact that various PowerPoint tutorial packages exist online, many of which are not interactive, while the interactive ones have yet to focus on the latest versions of PowerPoint. Some of the tutorials are not downloadable for use offline, which is a challenge to those who are not connected to the internet. In addition, other online PowerPoint tutorials are video-based and located on the YouTube website. It is in the light of this unsatisfactory state of affairs in tertiary institutions that the researcher is prompted to develop an interactive training package that will equip lecturers with PowerPoint design and presentation skills so as to enable them to meet the current global standards.

2. Significance of the Study

This study has both theoretical and practical significance. This study is grounded in Mayer's Cognitive Theory of Multimedia Learning (CTML), which explains how learners process and integrate visual and verbal information in separate channels of working memory to produce meaningful learning [12]. A cognitive theory of multimedia learning is based on three main assumptions: (i) that there are two separate channels (auditory and visual) for processing information; (ii) that there is limited channel capacity; and (iii) that learning is an active process of filtering, selecting, organizing, and integrating information. This theory assumes that the use of multimedia messages leads to deeper learning. The reason for this is the way a person's brain processes multimedia information. The theory also presents principles to guide designers of multimedia and e-learning in the presentation of textual, graphical, video, and audio information for optimal learning. One of the major reasons behind the development of ITP on PowerPoint design and presentation is that it will take care of the different learning styles of users through the provision of auditory and visual information that enhances learning. Therefore, the findings of this study would go a long way to improve learning based on this theoretical platform. In addition, the findings of the study will be practically beneficial to lecturers and students of tertiary institutions, school administrators, conference organizers, and future researchers.

The content and learning experiences of ITP will adequately expose lecturers to skills and procedures required to design captivating, meaningful PowerPoint slide presentations. This means that the skills acquired by lecturers through the use of the training package will make classroom instructions lively, entertaining, and easy to teach, understand, and comprehend by students. Lecturers will be able to prepare their presentations by themselves and will no longer require the services of ICT/business centre operators, who often exploit them financially without giving them what they really want in their presentations. They will gain access to the ITP at the end of this research through the school libraries or by downloading from Google.

3. Methodology

3.1. Study Context

This study was conducted in Universities in Enugu State, Nigeria. Enugu State is one of the five States in South East States of Nigeria, and it has 17 Local Government Areas with both private and public universities. It has inter-state boundaries with Kogi and Benue State in the North, Abia State in the South, Anambra State to the West, and Ebonyi State to the East. Its capital is Enugu. The choice of using Enugu State was a result of its great number of universities, and these universities have computer laboratories and multimedia facilities in classrooms for instruction delivery.

3.2. Research Design

Research and Development (R&D) designResearch-and-development (R&D) design is an industry-rooted development approach in which empirical findings are used to create new products or procedures that are then progressively field-tested, evaluated, and revised until they satisfy predetermined standards of effectiveness and quality [7]. Research and development (R&D) in education involves creating and field-testing educational products such as textbooks, equipment, and curricula to ensure their effectiveness." [9]. The R&D design was appropriate for the study because it aimed at using research findings to design an interactive training package, validate the package, and trial-test it on users for effectiveness.

3.3. Ethical Considerations

Every step of this study's methodology was presented for checks for any form of unethical measure. All participating schools were properly informed of the study's purpose without withholding any information. The possibility that students and lecturers participating in the study will miss any lecture on the school timetable schedule. However, the

make-up plan for such a loss following the distribution of the questionnaire was also discussed. Lecturers' permission to serve as research assistants was sought, and it was clearly stated that students' confidentiality would be protected and serve as anonymous. Students who need a consent letter from their parents due to restrictions or access to the computer laboratory or any internet-enabled device were also served by the school administration. Aside from the preceding, no respondents were biologically and psychologically harmed or assaulted during the research.

3.4. Sample and Instrumentation

The entire population of 53 computer education lecturers comprising 32 males and 21 female lecturers in five (5) public and private Universities that offers computer education programme in Enugu State: ESUT-4 (Male=3 and Female=1), UNN-19 (Male=13 and Female=6), GoUni-9 (Male=5 and Female=4), Renaissance-9 (Male=4 and Female=5) and Coal city university-12 (Male=7 and Female=5). No sampling was done because the population was manageable.

The instruments to be used in this study were in two phases:

Phase 1: This phase contains a 58-item questionnaire named "Interactive Training Package Questionnaire" (ITPQ) was used for data collection. The instruments were used in collecting information regarding the degree of importance of the questionnaire items for the development of the ITP. The instrument consisted of two sections, A and B Section A contains demographic information on the respondents, while Section B sought information on the objectives (with 8 items), contents (with 50 items) required to develop ITP in PowerPoint design and presentation.

Phase 2: The instrument used in this phase was the User Evaluation Questionnaire (UEQ). It was used to obtain information from lecturers on the effectiveness, functionality, and satisfaction of the Interactive Training Package with 40 questionnaire items.

Data collected from the respondents were analyzed using Cronbach's Alpha Reliability Coefficient to determine the instrument's internal consistency. The choice of Cronbach's Alpha was because there were no right or wrong answers to the instrument.

The instrument was divided into two sections. Each section yielded the following reliability coefficient: cluster A had 0.65, and cluster B had 0.88. The grand or overall reliability coefficient was 0.91. Likewise, the User Evaluation Questionnaire (UEQ) yielded a reliability coefficient of 0.84, indicating that the instrument is reliable and suitable for the study.

3.5. Data Collection

The questionnaire was administered and retrieved by the researcher with the help of six research assistants who were properly briefed on the content of the questionnaire and its administration to ensure that the questionnaire was properly administered. The research assistant assisted with retrieving the completed questionnaire, and appointments were booked with respondents for collection at a later date for those who were unable to complete their own copies of the instrument due to the nature of their job. 53 copies of the questionnaire were administered to the total population, and retrieved and used for data analysis.

3.5.1. Procedure for Developing an Interactive Training Package (ITP)

The development of the ITP was conducted using a modified version of the waterfall Software Development Life Cycle (SDLC) model, originally outlined by Royce and later refined to include feedback loops between phases [21]. The key detail in Royce's model presentation is the positioning of development phases in the sequence of their execution. However, the modified waterfall considers feedback or an iterative mechanism in its implementation. The main change in the modified waterfall is that the phases are permitted to overlap, thereby making the development process flexible to handle. The stages of the modified Waterfall Model adopted in the present study are as follows:

3.5.2. Stage I Initial Investigation

This stage involved understanding the purpose of the project before it was started. The researcher critically observed a lot of local and international presentations done in different disciplines, both in the classroom teaching and conference paper presentations, and observed that these presentations did not conform to the multimedia presentation design and delivery standards based on the principles of multimedia propounded by [12].

3.5.3. Stage II Requirement Analysis

Once information on the kind of software project to be developed and what it aims to achieve is obtained, the researcher collects information on what is required to start the design process. It involves defining the problem to be investigated, the development, validation, and distribution of a questionnaire on the objectives, contents, instructional methods, and evaluation of the proposed ITP. The data collected were analyzed, interpreted, and documented for use at the next stage of the development process.

3.5.4. Stage III System Design

The documentation generated at the Requirement Analysis stage was used to create the architectural design specifications for the proposed ITP. The architecture defines the different components of the ITP and how they interact with each other. The following tools were utilized at the design stage:

i. The UML Activity Diagram

The Universal Modeling Language (UML) Activity Diagram will be developed to visually illustrate the workflows of

components in the proposed ITP. This diagram helped the researcher to have an idea of how the system (ITP worked when executed.

ii. The Flowchart Diagram

A flowchart diagram of the proposed ITP is drawn to indicate the software logic flow describing the overview of how data are logically connected in the ITP.

iii. (UI) Design Sketch

The UI sketch was a strategy adopted in designing the Main Menu screen of the ITP. The UI design shows the placement, linking, and functionality, consistency of controls and appearance throughout, error recovery subroutines, and user guidance.

iv. The Storyboard was implemented in the subsequent ITP screens for planning the screen controls (such as buttons, frames, textboxes, picture, images, timers, windows media controls, etc.) and the interactive tasks involved in the use of ITP such as mouse click, mouse over, key press, drag-and-drop, etc. Using the storyboard, controls are placed accordingly, named, described, and key subroutine(s) written in an algorithmic format or using the real code. The storyboard for the ITP Table Insertion Task.

The Multimedia Editing and Production Platforms

The researcher also utilized multimedia capturing, editing, and publishing platforms for the multimedia production. These multimedia platforms are: Macromedia Fireworks (graphics editing), Adobe Audition (audio editing), Windows Movie Maker and Camtasia Studio (video editing and production), Visual Basic (authoring platform), Inno Setup Compiler (Software setup creator), and Nero Burning ROM (CD/DVD burning software).

The Multimedia Editing and Production Steps

The design stage also outlined the steps required for the production of the multimedia elements that were integrated into ITP. The researcher adopted up to six working steps for multimedia production:

3.5.5. Step I: Capturing

The media elements integrated into ITP were acquired using digital devices, such as a webcam, digital camera, and print screen.

3.5.6. Step II Importing/Exporting

The multimedia elements acquired in the first step were imported/exported from one platform to another. For example, Camtasia Studio will be used to record on-screen activities for editing, rendering, and saving of audio-visual products that were imported into the ITP implementation platform.

3.5.7. Step III Editing

The multimedia elements captured and imported into an editing platform (such as Windows Movie Maker, Macromedia Fireworks, Adobe Audition, etc.) were edited to meet the ITP requirements. The editing tasks that were carried out include resizing pictures, cropping pictures, joining video or audio parts, adding visual or audio effects, splitting video and audio clips into manageable sizes, etc.

3.5.8. Step IV Testing

After editing the multimedia elements, for example, the audio and video clips, the developer tested all parts of the media elements to check for conformity with the requirements of the ITP.

3.5.9. Step V Publishing/Rendering

The multimedia elements, after passing through the testing stage, were rendered or published in a format acceptable to the ITP development platform, which is Visual Basic.

3.5.10. Step VI Integration

This is the last step of the multimedia production process. In this step, the published media file(s) are integrated into Visual Basic using the Windows Media Player control. A series of codes was also written to bind the ITP and the media objects together on the development platforms.

3.5.11. Stage IV Coding

The developer utilized the tools and the media elements produced at the design stage to write the code (program statements) that are executed to produce the desired output. The coding platform is the Visual Basic (VB) programming language software. VB is one of the object-oriented event-driven programming languages that is easy to learn and use in writing Windows-based applications.

3.5.12. Stage V Testing

The ITP was tested for potential bugs (coding errors) before the final compilation. The syntax, semantics, and runtime errors were extensively checked in the ITP. The errors detected were debugged until the entire ITP module was free from errors. When the verification process was completed, the ITPs were compiled into an executable program. The compilation process also generated other hidden errors, which were corrected for recompilation.

3.5.13. Stage VI Implementation

The compiled ITP was recorded on DVD and deployed to users for use in learning PowerPoint design and presentation.

3.5.14. Stage VII Operation and Support

This stage was mapped out as an important stage in the development cycle of ITP. It was assumed that the target users may need technical support from time to time on the functionality of ITP.

3.6. Procedure for Trial-Testing of the Developed Draft of the ITP

The ITP was compiled into an executable format (.exe) and was recorded on two DVDs (original and backup copy) for the purpose of trial-testing it. The reason for producing the backup copy was to ensure that in case of damage or error in reading the original DVD, the backup copy can be used. The trial-testing involved three lecturers from different disciplines. The lecturers involved in the trial-testing were from Abia State University, Uturu, and Ebonyi State University. The lecturers were orally notified earlier about the trial-testing of the developed ITP.

The ITP was installed in the personal computers of the lecturers. The lecturers were equipped with the User Evaluation Questionnaire (UEQ) as well as the User Instructional Manual to guide them in operating the software. Also, the researcher, through the research assistants, forwarded the DVD, the User Evaluation Questionnaire (UEQ), and the User Instructional Manual to lecturers in the other institutions outside the University. At the end of the exercise, the three lecturers rated ITP based on functionality, effectiveness, and level of satisfaction with the software.

4. Data Analysis

The data collected with the questionnaire were analyzed using Mean ($\bar{x}$) with Standard Deviation (SD) to answer each of the research questions. However, each of the hypotheses was tested using t-test statistics at a 0.05 level of significance. The analysis was computer-based with the use of the Statistical Package for Social Sciences (SPSS) to analyze the respondents' ratings. The t-test was used because of the sample size, and also the researcher made use of two groups. The decision rule: any mean with 2.50 and above was regarded as Important (I) while a mean value below 2.50 was regarded as Of Little important (OLI). The null hypotheses were rejected when the significance level was less than 0.05, and were not rejected when the significance level was more than 0.05 level of significance.

5. Results and Discussion

The researcher presents the data collected from respondents, as well as the results of their analyses. The presentation and analyses are according to the research questions.

Phase 1:

Determination of the Components of the Interactive Training Package (ITP) Objectives, Contents, Instructional Method, and Evaluation Activities.

Research Question 1: What are the objectives of the interactive training package on male and female lecturers in PowerPoint design and presentation?

Table 1. *Mean responses and standard deviation of the respondents on the objectives of the interactive training package on male and female lecturers in PowerPoint design and presentation.*

N=53

S/N	The objective of ITP is that lecturers should be able to;	Male=32			Female=21			Total=53		
		$\bar{x}$	SD	Dec	$\bar{x}$	SD	Dec	$\bar{x}$	SD	Dec
1	start Microsoft office PowerPoint	2.91	.82	I	2.95	.81	I	2.96	.81	I
2	create slide title/sub-title	2.87	.83	I	2.90	.83	I	2.94	.82	I
3	Add content to the slide	2.88	.75	I	2.95	.74	I	3.04	.78	I
4	insert media element onto the current slides	2.84	1.22	I	2.76	1.30	I	2.66	1.16	I
5	apply effect to slides	2.22	1.18	OLI	2.19	1.08	OLI	2.40	1.17	OLI
6	Adopt the recommended guidelines for PowerPoint design	3.19	.74	I	3.24	.77	I	3.11	.75	I
7	perform slide-related tasks for creating quality presentation	2.34	1.09	OLI	2.38	1.16	OLI	2.42	1.06	OLI
8	run presentation slideshows	2.19	.89	OLI	2.10	.89	OLI	2.09	.97	OLI
9	GRAND MEAN	2.68	.94	I	2.68	.95	I	2.70	.94	I

From Table 1 above, the results of data analysis for research question 1 indicated that the male and female computer

education lecturers agreed that all the items are Important (I), which had mean responses that were higher than the cut-off point of 2.50 except for the items (5, 7 and 8) under male and female computer education lecturers which shows Of Little Important (OLI). The value of the grand mean was also high at (2.68) for the male computer education lecturers, (2.68) for female computer education lecturers, with the overall/ total grand mean as (2.70). The closeness of the standard deviation shows a unanimity among the respondents in respect to their responses to the items. This implied that the respondents agreed that the items were objectives of an interactive training package on male and female lecturers in PowerPoint design and presentation.

Research Question 2: What are the contents needed for achieving the objectives of the interactive training package for male and female lecturers?

Table 2. *Mean responses and standard deviation of the respondents on the contents needed for achieving the objectives of the interactive training package on male and female lecturers.*

N=53

S/N	Contents needed for achieving the objectives of the ITP for lecturers are;	Male=32			Female=21			Total=53		
		$\bar{x}$	SD	Dec	$\bar{x}$	SD	Dec	$\bar{x}$	SD	Dec
1	loading PowerPoint in different windows operating system	2.97	.74	I	2.95	.74	I	2.96	.81	I
2	Understanding the PowerPoint user interface	2.78	1.21	I	2.67	1.28	I	2.62	1.15	I
3	selecting PowerPoint layout	2.41	.95	OLI	2.33	.91	OLI	2.43	1.10	OLI
4	applying a design to a presentation	3.25	.76	I	3.19	.81	I	3.09	.79	I
5	Creating a title on the title page	3.00	.92	I	3.05	.92	I	3.06	.89	I
6	Creating a subtitle on the title page	3.22	.71	I	3.29	.72	I	3.13	.74	I
7	formatting text in the title and subtitle placeholders	2.59	1.07	I	2.67	1.16	I	2.45	1.07	OLI
8	inserting a table on the current slide	3.00	.80	I	2.95	.81	I	3.02	.82	I
9	creating charts from tables	2.88	.83	I	2.90	.83	I	2.87	.81	I
10	hyperlink objects on a link	3.00	.76	I	3.19	.75	I	3.02	.82	I
11	inserting shapes on a slide	2.75	1.08	I	2.76	1.04	I	2.77	1.05	I
12	embedding screenshots onto the current slide	3.22	.83	I	3.10	.89	I	3.06	.84	I
13	inserting audio onto the current slide	3.16	.85	I	3.14	.85	I	3.11	.82	I
14	inserting a graphic onto the current slide	3.25	.80	I	3.19	.81	I	3.23	.82	I
15	inserting a video file onto the current slide	2.94	.80	I	3.00	.84	I	2.91	.77	I
16	formatting media files placed on PowerPoint slides	2.84	.85	I	3.00	.84	I	2.92	.85	I
17	converting presentation to video files	2.53	1.19	I	2.29	1.15	OLI	2.57	1.14	I
18	recording of a slideshow	3.00	.88	I	3.14	.91	I	3.13	.86	I
19	Capturing a screenshot of the active window	2.97	.89	I	3.05	.87	I	2.96	.88	I
20	recording of the on-screen using the screen recording command	2.91	.69	I	2.95	.67	I	3.00	.73	I
21	saving recorded on-screen tasks as standalone media files	2.72	.77	I	2.71	.85	I	2.85	.82	I
22	animating objects placed on a slide	2.41	1.10	OLI	2.52	1.12	I	2.43	1.14	OLI
23	applying transition effects on the slide	3.12	.87	I	3.29	.78	I	3.06	.86	I
24	applying a sound effect to an object on a slide	3.22	.79	I	3.24	.77	I	3.17	.80	I
25	changing slide layout	3.59	.50	I	3.57	.51	I	3.51	.51	I

S/N	Contents needed for achieving the objectives of the ITP for lecturers are;	Male=32			Female=21			Total=53		
		$\bar{x}$	SD	Dec	$\bar{x}$	SD	Dec	$\bar{x}$	SD	Dec
26	duplicating slides	3.31	.69	I	3.43	.59	I	3.36	.68	I
27	deleting slides	2.53	1.19	I	2.29	1.15	OLI	2.57	1.14	I
28	hiding slides	3.59	.50	I	3.57	.51	I	3.51	.51	I
29	changing background style	2.53	1.19	I	2.29	1.15	OLI	2.57	1.14	I
30	downloading a template online	2.94	.80	I	3.00	.84	I	2.91	.77	I
31	Rehearsing slideshow timing to create a timed presentation	3.59	.50	I	3.57	.51	I	3.51	.51	I
32	running slideshow	3.53	.51	I	3.67	.48	I	3.43	.50	I
33	saving a presentation in Slideshow as .ppsx	2.94	.80	I	3.00	.84	I	2.91	.77	I
34	Setting up a slideshow for different modes	3.53	.51	I	3.67	.48	I	3.43	.50	I
35	uploading presentations to the slideshare.com website	2.94	.80	I	3.00	.84	I	2.91	.77	I
36	choosing of visual aids that best convey the presentation message	3.53	.51	I	3.48	.51	I	3.58	.49	I
37	using PowerPoint animation to focus attention	3.53	.51	I	3.67	.48	I	3.43	.50	I
38	using a legible font style and size for easy viewing	3.53	.51	I	3.48	.51	I	3.58	.49	I
39	avoiding overcrowding of slides with irrelevant images	3.53	.51	I	3.67	.48	I	3.43	.50	I
40	limiting each slide to one unified idea	3.53	.51	I	3.48	.51	I	3.58	.49	I
41	mastering of presentation contents before the day of presentation	2.94	.88	I	2.95	.87	I	3.02	.89	I
42	punctuality at the presentation venue	3.53	.51	I	3.67	.48	I	3.43	.50	I
43	Assessing/testing presentation equipment at the venue before presenting	2.94	.88	I	2.95	.87	I	3.02	.89	I
44	making available a personal presenter	3.13	.75	I	3.05	.81	I	3.04	.78	I
45	printing a presentation on paper in case of a power failure	3.53	.51	I	3.67	.48	I	3.43	.50	I
46	avoiding exceeding the allotted time during the presentation	3.53	.51	I	3.52	.51	I	3.47	.50	I
47	demonstrating that the topic is interesting	3.59	.50	I	3.52	.51	I	3.57	.50	I
48	emphasizing on points shown on the screen	2.94	.88	I	2.95	.87	I	3.02	.89	I
49	facing the audience during a presentation	3.13	.75	I	3.05	.81	I	3.04	.78	I
50	speaking with confidence	3.59	.50	I	3.52	.51	I	3.57	.50	I
	GRAND MEAN	3.18	.78	I	3.19	.77	I	3.16	.81	I

From Table 2 above, the results of data analysis for research question 2 indicated that the male and female computer education lecturers agreed that all the items are Important (I), which had mean responses that were higher than the cut-off point of 2.50 except for the items (11) under male and female computer education lecturers, item (25) under female computer education lecturer, item (30) under male computer education lecturer, items (35 and 37) under female computer education lecturer which shows Of Little Important (OLI). The value of the grand mean was also high at (3.18) for the male computer education lecturers, (3.19) for female computer education lecturers, with an overall/ total grand mean of (3.16). The closeness of the standard deviation to 1 shows that there is no homogeneity among the respondents with respect to their responses to the items. This implied that the respondents agreed that the items were contents needed for

achieving the objectives of the interactive training package on male and female lecturers.

6. Conclusion

The poor quality of PowerPoint presentations created by lecturers for use at various academic occasions led to the development of an Interactive Training Package (ITP) that will enable them to learn how to use PowerPoint features for designing standard presentations. The software also addressed the presentation guidelines for effective presentations by lecturers. This will undoubtedly lead to job satisfaction, improved productivity, and enhanced learning outcomes for the learner. The findings of the study revealed that the objectives, contents, instructional methods, and evaluation activities for the ITP were all important and suitable for teaching and learning PowerPoint design and presentation.

Implication of the Study

The computer education lecturers, through the study, are now equipped and encouraged to acquire skills in the design and presentation of PowerPoint. The nature of computers demands that they be taught practically, but practical computer education is poorly done due to the insufficiency and incompetence needed for PowerPoint design and presentation among computer education lecturers. Computer education lecturers' acquisition of skills for PowerPoint design and presentation will go a long way to promote quick understanding by arresting learners' attention and giving firsthand experience, which are not easily forgotten, and encourage active participation and practical knowledge of computers.

The findings hold strong implications for students as they are provided with rich visual experiences and are allowed to manipulate computers for direct concrete experience, which will definitely boost students' academic performance in computer-based examinations, both in internal and external examinations.

Limitations of the Study

While we have successfully achieved the objective, we had no control over the respondents; hence, we accepted their responses as obtained. This implies that the research relied on the respondents' objectivity as the basis for realizing the findings as empirically made, leading questions were avoided; however, possible faking of responses to the items on the questionnaire could not be ruled out despite all the measures taken.

Abbreviations

CTML	Cognitive Theory of Multimedia Learning
UEQ	User Evaluation Questionnaire
SDLC	Software Development Life Cycle
UML	Universal Modelling Language
ITP	Interactive Training Package
UI	User Interface
ROM	Read-Only Memory
VB	Visual Basic
CD	Compact Disc
SD	Standard Deviation

Author Contributions

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Batholomew Oluchi Ukeh: Investigation, Project administration, Supervision

Data Availability Statement

Data for this study will be made available on request by the corresponding author.

Conflicts of Interest

The authors declare no conflicts of interest.

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