



TRACK CHANGES NEXUS OF CREATIVITY AND RELEVANCE FOR DIGITAL RESEARCH WORK COLLABORATION AND REVIEWING IN BUSINESS EDUCATION

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Abstract

This paper studied track changes nexus of creativity and relevance for digital research work collaboration and reviewing in business education. Two research questions and two null hypotheses guided the study. The study adopted a descriptive survey design. The population of the study comprised 41 business educators in tertiary institutions in Ebonyi State, Nigeria. Census survey sampling technique was used. A structured questionnaire was used. The questionnaire was validated by three experts, two from Business Education Department and one from Measurement and Evaluation, all from Ebonyi State University, Abakaliki. Cronbach Alpha reliability procedure was used. The instrument yielded a reliability coefficient of 0.79. Forty one (41) copies of the instrument were administered to the respondents but 39 were retrieved representing 95% of the instrument. Data collected was analyzed using mean and standard deviation for research questions while the hypotheses were tested at 0.05 level of significance using t-test. The findings of the study found that the track changes nexus of creativity and relevance for digital research work collaboration and reviewing in business education was accepted and highly accepted respectively by the respondents. The test of the hypotheses proved that there is no significant difference in the track changes nexus of creativity and relevance for digital research work collaboration and reviewing in business education based on gender. In conclusion, track changes creativity is very useful for digital research work collaboration and reviewing in business education. The recommendation among others was that Curriculum planners should re-organize and diversify business education curriculum to include track changes digital skills because of its usefulness.

Keywords: Track changes, Nexus of Creativity, Collaboration and Reviewing, Relevance, Business Education, Digital Skills

Introduction

In academics, many documents like student projects, assignment among others need revisions and edits before they are good to go. Let's say someone was asked to proofread or collaborate on a document. If the reviewer had a printed copy, the reviewer might use a red pen to cross out sentences, mark misspellings, and add comments in the margins but Savadra (2018) stated that the days of circulating a paper copy for review are pretty much over because Microsoft word allows the user to do all of these things electronically using track changes.

According to Beal (2019), track changes in Microsoft Word is an editing command that is commonly used when the user creates an original document, makes changes, and wants to keep track of the changes that are made to that original document. Beal added that it is a useful tool for collaborating on a document, as it allows multiple users to make revisions without losing the context of the original document. The track changes function in Word allows the user to keep a record of amendments made to a document before the users can then choose to accept or reject the amendments. It is a useful tool for managing changes made by several reviewers to the same documents. Based on the above reason Hamrick in Anyigor-Ogah (2022) added that track change is a tool in Micro-Soft Word that allows the user to show any markups, changes, or comments made to a document. According to Goodwill Community Foundation (2016) when track changes are turned on, every change made to the document will appear as a coloured markup. If texts are deleted, they won't disappear, instead, the text will be crossed out. If texts are added, they will be underlined. Track change allows the user to see edits before making the changes permanent. GCF added that, if there are multiple reviewers, each person will be assigned a different markup colour. Marshall (2018) stated that these markups appear in a variety of colours such as red, blue, or green, each assigned to a different collaborator on the document. Marshall added that this makes changes visible and collaborators identifiable. It is often useful for other people to be able to see exactly



what the reviewer has changed in a document. When the user selects track changes in a Micro Soft Word document, all changes are tracked, including insertions, deletions, moved text, formatting changes, changes to comments, and changes to borders. Marshall went further to state that track changes features make changes in the body of the document, making it easy to see what was deleted, added, edited, or moved. He also added that when collaborating on a document, it is often essential that changes made to the document be tracked. He went further to state that these allow the owners of the documents to see what changes were made and by whom. Godwin (2018) stated that to turn on track changes, from the review tab in the menu, and click the track changes command; track change will be turned on. He added that from this point on, any changes made to the document will appear as coloured markups. In these regards, track changes nexus of creativity becomes a welcome idea.

The word nexus means a connected series or groups while creativity is the use of innovation, inventiveness or ideas to create something. Therefore nexus of creativity has to do with the tie, link, connection of creativeness, talent, and ingenuity to bring something special. Application of track changes nexus of creativity will efficiently give the collaborators the competitive edge to stay in touch with the changing conditions of the digital educational system without any pressure in business education. Business education according to Azuka and Nwosu in Anyigor-Ogah and Okoli (2022); Anyigor-Ogah (2023a) is a programme of studies, which comprises four parts-creating awareness in occupations; preparing youths for work in business occupation; preparing people to become better citizens and consumers of goods and services; and preparing business teachers. Business education is that aspect of general education that prepares students for employment and advancement in a broad range of office occupations accounting professions marketing occupation,, teaching profession, and entrepreneurship ventures (Onokpaunu, 2016). However, the collaborators in business education are not restricted to any gender. Igboke and Anyigor-Ogah (2021); Anyigor-Ogah (2023b) noted that gender is an attributed quality that differentiates females from males. The difference in digital skills of males and females in business education has been reported by researchers. Ndubuisi, Ezeani and Ile (2022); Idehen and Emeasoba, (2022) found that there is no significant difference in the opinion of male and female respondents on the integration of technology skills in Business education. One of the responsibilities of the academic staff of business education programmes is collaborating and reviewing of research work.

Research Work consists of neither student's projects at the bacallurreet (First degree) dissertation, (at master degree level), thesis at (doctor of Philosophy level) and writing of article publication in a reputable journal. Research Work presents the opportunity to undertake some considerable pieces of independent research. The research work consolidates the understanding of research methodologies and helps to develop deeper approach to research and also allows researchers to interact with examples of the practical problems that always occur during research work. Through research work, researchers acquire transferable skills that would be of benefit to them in the course of their study and in their later life in terms of problem solving, project skills, analytical and evaluative skills (Anyigor-Ogah, 2016).

The benefits offered by research work in business education, cannot be achieved if effective collaboration and reviewing are not properly carried out by the collaborators. Effective collaboration and reviewing of research work entails joint effort of the collaborators in the examination, inspection, and correction of the research work. Hence, this study examined track changes nexus of creativity and relevance for digital research work collaboration and reviewing in business education.

Research Questions

The following research questions guided the study.

1. What are the track changes nexus of creativity for digital research work collaboration and reviewing in business education?
2. What are the track changes nexus of creativity relevance for digital research work collaboration and reviewing in business education?

Hypotheses

The following hypotheses were tested at 0.05 level of significance:

HO₁: There is no significant difference in the mean responses of the respondents on the track changes nexus of creativity for digital research work collaboration and reviewing in business education based on gender.



HO₂: There is no significant difference in the mean responses of the respondents on the track changes nexus of creativity relevance for digital research work collaboration and reviewing in business education based on gender.

Methodology

Descriptive survey design was adopted for the study. The area of the study was Ebonyi State comprising three tertiary institutions offering business education namely: Ebonyi State University Abakaliki, Ebonyi State College of Education, Alex Ekwueme Federal University, Ndufu-Alike Ikwo. The population of the study comprised 41 business educators which was made up of 24 males and 17 females in the three institutions: Ebonyi State University 14, Ebonyi State College of Education 14, and Alex Ekwueme Federal University, Ndufu-Alike Ikwo 13. The data for the study was collected using a structured questionnaire. The questionnaire consisted of 24 items according to research questions on a 4-point rating scale of Highly Accepted, Accepted, Unaccepted and Highly Unaccepted. The instrument was validated by three experts; two from business education and one from Measurement and Evaluation, all from Ebonyi State University, (EBSU) Abakaliki. The instrument was also subjected to a reliability test, and yielded reliability co-efficient of 0.79.

41 copies of the instrument were administered to the respondents but 39 were retrieved representing 95% of the instrument. Mean and standard deviation were used to answer the research questions, while the hypotheses were tested using t- test. Decisions on the research questions were based on the grand mean in relation to the real limits of numbers. Therefore, items with mean ratings of 0.50-1.49 were rated Highly Unaccepted, those with 1.50 – 2.49 were rated Unaccepted, items with mean ratings of 2.50 – 3.49 were rated Accepted and those with 3.50-4.00 were rated Highly Accepted. For hypotheses, if the calculated t-value is equal to or greater than the critical t-value, it will be rejected. If otherwise, it will be accepted.

Results

Research Question 1

What are the track changes creativity for digital research work collaboration and reviewing in business education?

Data collected to answer the above research question are presented in Table 1.

Table 1: Respondents Mean Ratings on the Track Changes Nexus of Creativity for Digital Research Work Collaboration and Reviewing in Business Education

S/N	Track Changes Nexus of Creativity	X	SD	REMARK
1	Creativity to show revision in balloons	3.08	0.39	Accepted
2	Creativity to show all revision in-line	3.19	0.83	Accepted
3	Creativity to show only comments and formatting in balloons	3.03	0.64	Accepted
4	Creativity to accept change	3.50	0.55	Highly Accepted
5	Creativity to reject change	3.18	0.64	Accepted
6	Creativity to use simple markup	2.94	0.23	Accepted
7	Creativity to use all markup	3.23	0.59	Accepted
8	Creativity to use vertical reviewing pane	3.05	0.84	Accepted
9	Creativity to use horizontal reviewing pane	3.39	0.69	Accepted
10	Creativity to use no markup	3.47	0.68	Accepted
11	Creativity to use hide track changes	3.08	0.57	Accepted
Grand Mean		3.19		Accepted

Data in Table 1 reveals that items 1-11 had a mean rating of 2.94 – 3.50 3 with a grand mean of 3.19. This indicates that track changes nexus of creativity for digital research work collaboration and reviewing in business education was accepted by the respondents.

Research Question 2

What are the track changes nexus creativity relevance for digital research work collaboration and reviewing in business education?



Data collected to answer the above research question are presented in Table 2.

Table 2: Respondents Mean Ratings on the Track Changes Nexus of Creativity Relevance for Digital Research Work Collaboration and Reviewing in Business Education

S/N	The Track Changes Nexus of Creativity Relevance	X	SD	Remarks
12	Enhances text insertion like, if texts are added, they will be underlined	3.52	0.54	Highly Accepted
13	Improved text deletion like, if texts are deleted, they won't disappear, instead, the text will be crossed out.	3.61	0.75	Highly Accepted
14	Helped the user to see edits before making the changes permanent.	3.53	0.54	Highly Accepted
15	Allows the user to keep a record of amendments made to a document before the users can then choose to accept or reject the amendments.	3.78	0.53	Highly Accepted
16	Eased multiple users to make revisions without losing the context of the original document	3.55	0.65	Highly Accepted
17	Allows the user to show any markups, changes, or comments made to a document.	3.44	0.58	Accepted
18	Provide the user the opportunity to edit feedback before it is finally sent	3.46	0.59	Accepted
19	Permits the user to send the edited work back to any collaborator at any time or place	3.71	0.48	Highly Accepted
20	Enable the user to highlight a whole section and make broad observations/comments	3.56	0.56	Highly Accepted
21	Helped in distinguishing between corrections and comments	3.74	0.37	Highly Accepted
22	Allows the owners of the documents to see what changes were made and by whom.	3.73	0.60	Highly Accepted
23	Using the next function, the user can work systematically through successive changes and comments	3.61	0.47	Highly Accepted
24	Encouraged all changes to be tracked, including insertions, deletions, moved text, formatting changes, changes to comments, and changes to borders.	3.50	0.68	Highly Accepted
Grand Mean		3.59		Highly Accepted

Data in Table 2 reveals that items 12 - 24 had a mean rating of 3.44 – 3.78 with a grand mean of 3.59. This indicates that track changes nexus of creativity relevance for digital research work collaboration and reviewing in business education was highly accepted by the respondents.



Test of Hypotheses

HO₁: There is no significant difference in the mean responses of the respondents on the track changes nexus of creativity for digital research work collaboration and reviewing in business education based on gender.

Data collected to test hypothesis 1 are presented in Table 3.

Table 3: Summary of t-test Analysis of the Mean Responses of the Respondents on the Track Changes Nexus of Creativity for Digital Research Work Collaboration and Reviewing in Business Education

Variable	N	X	SD	DF	t-cal	t-crit	Decision	Remark
Male	23	2.08	0.93	37	0.59	2.04	Accept HO	NSD
Female	16	2.09	0.96					

Table 3 above reveals t-calculated value of 0.57 and t-critical of 2.04 at 37 degree of freedom. From the table, since the t-calculated is less than the critical t-value, the researchers upholds the null hypothesis and concludes that there is no significant difference in the opinion of the respondents regarding the track changes nexus of creativity for digital research work collaboration and reviewing in business education.

HO₂: There is no significant difference in the mean responses of the respondents on the track change nexus of creativity relevance for digital research work collaboration and reviewing in business education on gender.

Data collected to test hypothesis 1 are presented in Table 4.

Table 4: Summary of t-test Analysis of the Mean Responses of the Respondents on the Track Changes Nexus of Creativity Relevance for Digital Research Work Collaboration and Reviewing in Business Education

Variables	N	X	SD	DF	t-cal	t-crit	Decision	Remark
Urban	23	2.32	0.93	37	0.86	2.04	Accept HO	NSD
Rural	16	2.28	1.03					

Table 4 above reveals t-calculated value of 0.86 and t-critical of 2.04 at 37 degree of freedom. From the table, since the t-calculated is less than the critical t-value, the researchers, upholds the null hypothesis and concludes that there is no significant difference in the opinion of respondents regarding the track changes nexus of creativity relevance for digital research work collaboration and reviewing in business education.

Discussion of Findings

The result in Table 1 shows that track changes nexus of creativity for digital research work collaboration and reviewing in business education was accepted by the respondents in Ebonyi State, Nigeria. This finding is in line with Savadra (2018) who stated that the days of circulating a paper copy for review are pretty much over because word allows the user to do all of these things electronically using track changes in Micro-Soft Word. In the same vein, Adrian (2019) stated that from business reports to student papers, many documents need revisions and edits before they are good to go. The test of hypothesis (**HO₁**) in Table 3 proved that there are no significant differences in the mean responses of the respondents on the track changes nexus of creativity for digital research work collaboration and reviewing in business education based on gender. The findings are in agreement with Ndubuisi, Ezeani, and Ile (2022) who found that there is no significant difference in the opinion of male and female respondents on the integration of technology skills in Business education.



The result in Table 2 shows that track changes nexus of creativity relevance for digital research work collaboration and reviewing in business education was highly accepted by the respondents in Ebonyi State, Nigeria. The finding is in agreement with Beal (2019) who stated that track change in Microsoft Word is an editing command that is commonly used when the user creates an original document and makes changes and wants to keep track of the changes that are made to that original document. Beal added that it is a useful tool for collaborating on a document, as it allows multiple users to make revisions without losing the context of the original document. The track change function in Word allows the user to keep a record of amendments made to a document before the users can then choose to accept or reject the amendments. It is a useful tool for managing changes made by several reviewers to the same documents. Based on the above reason Hamrick in Anyigor-Ogah (2022) added that track change is a tool in Microsoft Word that allows the user to show any markups, changes, or comments made to a document. Also, the test of hypothesis (H_{O2}) in Table 4 proved that there is no significant difference in the opinion of male and female respondents on the track change nexus of creativity relevance for digital research work collaboration and reviewing in business education based on gender. The findings are in agreement with Idehen & Emeasoba, (2022) who found that there is no significant difference in the opinion of male and female respondents on the relevance of technology in Business education.

Conclusions

Based on the findings of the study, it was concluded that track changes nexus of creativity and relevance for digital research work collaboration and reviewing in business education was accepted and highly accepted by the respondents respectively. This implies that track changes nexus of creativity is very useful for digital research work collaboration and reviewing in business education. Also, it was concluded that gender does not significantly affect respondents' mean ratings on the track changes nexus of creativity and relevance for digital research work collaboration and reviewing in business education.

Recommendations

Based on the findings of the study, it was recommended that:

1. Business education lecturers should be re-trained to enable them to update their digital skill competencies in Microsoft Word track changes for effective digital research work collaboration and reviewing.
2. Curriculum planners should re-organize and diversify business education curriculum to include track changes digital skill, because of its usefulness.

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