

**LinkedIn Technology and Collaborative Learning for Global Competitiveness among
Educational Technology Lecturers in Cross River State Tertiary Institutions**

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ABSTRACT

The need to utilize LinkedIn for collaborative learning is a form of educational innovation. However, lecturers need to know how to use technologies in order to achieve global competitiveness. This study centres on using LinkedIn technology for collaborative learning among lecturer's in Cross River State Tertiary Institutions. The study adopted the survey research design. Two research questions and two research hypotheses were developed to guide the study. The targeted population of the study consisted of all 32 Educational Technology lecturers in the four tertiary institutions in Cross state (University of Calabar = 9, Cross River University of Technology = 3, Federal College of Education Obudu = 12 and College of Education Akamkpa = 8). Twenty-two Educational Technology lecturers were purposively used as sample size for the study, while Cross River University of Technology with three lecturers was used for reliability testing. The instrument for data collection was the LinkedIn Technology and Collaborative Learning Questionnaire (LTCLQ). The instrument was divided into two sections- section a measures 'LinkedIn Technology variables, while section B Measures Collaborative Learning. The instrument was used after being validated by two experts in the department of Educational Technology University of Uyo. Chronbach Alpha Reliability Coefficient of .71 was used to test for reliability. Data were analyzed using mean and standard deviation to answer the research questions while Analysis of Variance (ANOVA) was used to test the null hypotheses at 0.05 level of significance. It was found that there is no significant mean difference in the responses of Lecturers in the use of LinkedIn 'Muse' and 'News Feed' for Collaborative Learning among Educational Technology Lecturers in Cross River State Tertiary Institutions. Some recommendations were made to include that emphasis should be laid to utilize LinkedIn technology among lecturers through practices and innovations for achieving collaborative learning and global competitiveness.

**KEYWORDS: LinkedIn Technology, Collaborative learning, Global Competitiveness,
Cross River State Tertiary Institutions**

Introduction

In the 21st century, society changes rapidly, and teachers need to update their skills to keep up with the latest technological developments, especially if they are to apply technology effectively in their lives. They need to use digital technologies to access, manage, integrate, evaluate, and create information to successfully function in a knowledge economy. Technological innovations are the most influential pillars of global competitiveness. This is because technology is the purposeful application of scientific knowledge to invent and/or adapt things so as to solve practical problems especially in education. Technologies such as LinkedIn

have become a tool to research and development where educators across the globe can link up, collaborate and network with diverse group of people through shared knowledge as well as compete at local and global level in order to enhance the quality of education (The Partnership for 21st Century Skills, 2012).

LinkedIn a social networking site was launched in 2003 by Reid Hoffman, Allen Blue, Konstantin Guericke, Eric Ly and Jean-Luc, and currently has more than 300 million users worldwide. It was specifically designed for career and business professionals to collaborate live with colleagues online where they can display resumes and promote one skill, display sample of research works on one's profile such as documents, projects, videos as well as make one sellable. It is a platform that allows professionals all over the world regardless of location to be linked together to learn, share ideas, partner, enhance career, gain expertise advice and interact with experienced persons of same/different field of study. Users can add profile as contacts, update their professional profiles to notify contacts about their activities, recommend contacts for their professional skills as well as give career insights and advice (Novett, 2015).

There are many ways in which users can showcase their work online, which signifies their commitment and level of professionalism. LinkedIn is a tool for lecturers self-promotion, allowing them to publish their works as well as collaborate with other colleagues, faculty members, alumni and professionals in different field of study. It also affords colleagues the opportunity to have several meetings online as regards the progress of their academic work using a WEB-EX account. These can be achievable through collaboration. Collaboration refers to an environment in which learners engage, interact, and share their experiences as well as work together to search for solutions to learning. They engage in collaborative writing, group projects, small/whole-class grouping, joint problem solving, debates, study teams and many other activities. Such processes find their natural environment on the internet where collaboration and social dissemination are made easier by current innovations and proliferation of the web. Sharing concepts on a digital collaborative environment often facilitates brainstorming process, where new ideas may emerge due to varied contributions of individuals. These individuals may hail from different walks of life, different cultures and different age groups, their diverse thoughts processes help in adding new dimensions to learning (Baker and Bielaczyc, 1995).

Adams (2013) opines that for collaborative learning to take place on the LinkedIn network, lecturers must first understand the steps on how to get started on LinkedIn. It begins by first creating an account on <https://www.linkedin.com>. This is the first step to stay up to date with the latest development on LinkedIn where you connect with other LinkedIn users, give and receive recommendations and endorsements, create engaging and rich contents, find new hires and opportunities as well as boost one's profile. There are several LinkedIn features that create the environment for collaborative learning where lecturers can network and tailor their profile to match personal goals. They include: News Feed, Muse, Keep in Touch Box, Chat Window among others. These features help the users to source for information, prioritize and create contacts in terms of content sharing and engagement. They have the potential to provide asynchronous and synchronous collaborative learning which offers online feedback and discussions forum.

For instance, 'Muse' is a feature on the LinkedIn network specifically designed for job seekers who wants to build their profession. It offers career advice and mentorship. The 'Muse'

guides job seekers to the right position by letting them find relevant jobs that match their profile. After creating an account, jobs can be browsed by level of experience, area and location. The 'Muse' sends an email notification with career advice and introduces rising companies that job seekers can introduce to their search. It helps one to find out where the company of your choice job is located, what they do, the number of employees, jobs they are hiring for and other valuable information. This feature helps in facilitating referrals and making introductions. A 2014 report by Job Seeker Nation study found that 70% of users use 'Muse' to search for job connections and a crucial part during the job search is to meet people in person and through online social networks since 'Muse' enables users to turn for networking and job opportunities where users become highly educated and more likely to be employed full-time on the LinkedIn network.

Another feature on the LinkedIn network is 'News Feed' which help users update their profile by showcasing and advertising who one is, and what he or she can offer. Also users can make new connections by opening more networking opportunities through recommendations for their profile and endorsements of their skills acquired. A user can also give full description of him and include all projects worked on or any other significant details. Lineberry (2012) conducted a study on lecturer's use of 'News Feed' for collabourative learning. The author researched and found that lecturer's social development causes an increase in LinkedIn usage. This means as their demand for social professional relationships rises; they appear to be more willing to generate 'News Feed' content on LinkedIn. Harris and Rae (2011), assert that 65% of lecturers are adequately aware of LinkedIn technology but its utilization for collabourative learning is at low ebb. They lack adequate knowledge and expertise on how to use the features on the LinkedIn network. A lot of lecturers tend to only sign in by becoming a LinkedIn member, rather than utilizing it for collabourative learning where they can interact by sharing insights and experiences.

A study by Moran, Seaman and Tinti-Kane (2011), on 'Lecturer's Behaviours and Beliefs about using Social Media in Higher Education' found that the two social media sites most frequently used for collabourative learning were You-Tube (moderate level of agreement $x = 3.13$, $SD. = 2.17$), Facebook (moderate level; $x = 2.97$, $SD. = 2.09$), while LinkedIn was the lowest used media for collabourative learning with $x = 0.94$, $SD. = 1.09$). Also, a study carried out by Voyce (2017), on "Social Media in English Language Teaching and Learning" found that lecturer's most popular social media tool for collabourative learning is You-Tube ($M = 3.65$, $SD = 1.33$). They also used Facebook ($M = 2.52$, $SD = 1.42$) and Whatsapp ($M = 2.40$, $SD = 1.68$) but were unlikely to use LinkedIn (with mean scores below 1.5, $SD = 0.86$).

Seaman and Tinti-Kane (2013), found that LinkedIn is the most effective social network sites lecturers can explore for research collabouration. It allows users to easily post their job titles and skills acquired. A user can also give full description of oneself and include all projects worked on or any other significant details. Also if a researcher is writing a dissertation or publishing, one can check to see who else is interested in similar topics. Colleagues who need professional network also have the opportunity to contact people in their field of specializations who could assist in any area of need. Since LinkedIn has become the premier social media site for professionals, most employers will search for a research candidate on LinkedIn, and it may leave a negative impression if a candidate does not have a LinkedIn profile. In this digital age, a lot of lecturers may not want to appear behind the times as LinkedIn offers the opportunity to interact outside the structured environment. Although the introduction of LinkedIn is quite new,

the phenomenon has been recognized as key factor in collabourative learning, research and professional development.

Theoretical Framework

This research is anchored on the Theory of Uses and Gratification by Blumler and Katz (1974). The principal objectives of Uses and Gratification explains how the media is used by people to gratify their needs, to clarify motives for media behaviour and to outline functions or consequences that come with needs, motives and behaviour. The theory evaluates what an active audience does with the media, for what reason and with what effect. It involves a shift of focus from the purposes of the communicator to the purposes of the receiver. The theory was designed to fit new technological advancements and has passed through several developmental stages

Statement of the Problem

LinkedIn as a social networking site has been widely known by lecturers as a tool that is designed for business and professionals; however, the application of LinkedIn appears to have great potential far beyond the business circle. Interestingly LinkedIn is not limited to finding a job, it is also a site for collabourative learning where lecturers can connect with a network of diverse professionals in academics to learn and share educational thoughts. However, most lecturers despite their awareness of LinkedIn technology rarely utilize the site for collabourative learning as LinkedIn is one network lecturers can use to interact, learn and share information online to achieve a common goal.

Educators aim to use technology to enhance learning as well as to achieve widespread collabouration. However, most lecturers are not fully aware of the benefits that may be obtained by proactively harnessing the available technologies and how they might influence teaching, learning and research. To achieve collabourative learning, much effort has to be made by Educational Technology Lecturers in Cross River State Tertiary Institutions to utilize LinkedIn for collabourative learning so as to enable the goal of educational technology achievable hence the need to fill this gap.

It is against this backdrop that this research work is carried out to determine the relationship that exist between LinkedIn Technology and Collabourative learning for global competitiveness among Educational Technology Lecturers in Cross River State Tertiary Institutions

Purpose of the Study

This study was guided by the following objectives:

1. Determine the mean difference in the responses of Lecturers in the use of LinkedIn Muse for Collabourative Learning among Educational Technology Lecturers in Cross River State Tertiary Institutions
2. Determine the mean difference in the responses of Lecturers in the use of LinkedIn News Feed for Collabourative Learning among Educational Technology Lecturers in Cross River State Tertiary Institutions.

Research Questions

This study was guided by the following research questions:

1. What is the mean difference in the responses of Lecturers in the use of LinkedIn Muse for Collaborative Learning among Educational Technology Lecturers in Cross River State Tertiary Institutions?
2. What is the mean difference in the responses of Lecturers in the use of LinkedIn News Feed for Collaborative Learning among Educational Technology Lecturers in Cross River State Tertiary Institutions?

Research Hypotheses

This study was guided by the following research hypotheses:

1. There is no significant mean difference in the responses of Lecturers in the use of LinkedIn Muse and Collaborative Learning among Educational Technology Lecturers in Cross River State Tertiary Institutions.
2. There is no significant mean difference in the responses of Lecturers in the use of LinkedIn News Feed for Collaborative Learning among Educational Technology Lecturers in Cross River State Tertiary Institutions.

Method

The study adopted the Survey Research Design. Two research questions and two research hypotheses were developed to guide the study. The targeted population of the study consisted of all 32 Educational Technology lecturers in the four tertiary institutions in Cross state (University of Calabar = 9, Cross River University of Technology = 3, Federal College of Education Obudu = 12 and College of Education Akamkpa = 8). Twenty-two Educational Technology lecturers were purposively used as sample size for the study, while Cross River University of Technology with three lecturers was used for reliability testing. The instrument for data collection was the LinkedIn Technology and Collaborative Learning Questionnaire (LTCLQ). The instrument was divided into two sections- section a measures 'LinkedIn Technology variables, while section B Measures Collaborative Learning. The instrument was used after being validated by two experts in the department of Educational Technology University of Uyo. Chronbach Alpha Reliability Coefficient of .71 was used to test for reliability. Data were analyzed using mean and standard deviation to answer the research questions while Analysis of Variance (ANOVA) was used to test the null hypotheses at 0.05 level of significance.

Results

Research Question 1: What is the mean difference in the responses of Lecturers in the use of LinkedIn Muse Content for Collaborative Learning among Educational Technology Lecturers in Cross River State Tertiary Institutions?

Table 1: Mean Responses of Lecturers in the use of LinkedIn Muse for Collaborative Learning

SN	Statement	Mean			Remark
		UNICAL	COE	Fed COE	
1	Offers Career advice	1.44	1.00	1.59	Rarely Use
2	Ability to find job that matches your profile	2.33	1.66	1.21	Rarely Use
3	Send email notifications	2.88	2.55	3.10	Often Use
4	Helps find out your choice job	1.22	2.11	2.28	Rarely Use
5	Facilitates referrals	2.30	1.11	1.14	Rarely Use
	Clustered Mean	2.03	1.69	1.86	*Rarely Use

The result in Table 1 shows that all items fall within rarely use except item three, with clustered means of 2.03, 1.69 and 1.89 for University of Calabar, College of Education Akamkpa and College of Education Obudu respectively, which implies that the LinkedIn Muse for Collaborative is rarely used Learning among Educational Technology Lecturers in Cross River State Tertiary Institutions. The standard deviation also indicates the value between the ranges of .44 to 1.13 indicating that, the respondents were not divergent in their opinion.

Research Question 2: What is the mean difference in the responses of Lecturers in the use of LinkedIn News Feed for Collaborative Learning among Educational Technology Lecturers in Cross River State Tertiary Institutions?

Table 2: Mean Responses of Lecturers in the use of LinkedIn News Feed for Collaborative Learning

SN	Statement	Mean			Remark
		UNICAL	COE	Fed COE	
6	It updates one's profile	3.56	2.51	3.28	Often Use
7	Showcases and advertises members	1.31	2.32	1.21	Rarely Use
8	Offers connections and networking	2.11	1.22	2.62	Rarely Use
9	Showcases projects worked on	1.11	2.12	2.28	Rarely Use
10	Recommends Users	2.11	2.01	1.284	Rarely Use
Clustered Mean		2.04	2.04	2.13	*Rarely Use

The result in Table 2 shows that all items fall within rarely use except item one with clustered means of 2.04, 2.04 and 2.13 for University of Calabar, College of Education Akamkpa and College of Education Obudu respectively, which implies that the LinkedIn News Feed is rarely used for Collaborative Learning among Educational Technology Lecturers in Cross River State Tertiary Institutions.

Hypothesis 1

There is no significant mean difference in the responses of Lecturers in the use of LinkedIn 'Muse' and Collaborative Learning among Educational Technology Lecturers in Cross River State Tertiary Institution.

Table 3: Summary of Analysis of Variance (ANOVA) responses of Lecturers in the use of LinkedIn Muse and Collaborative Learning among Educational Technology Lecturers in Cross River State Tertiary Institution

SN	Statement		Sum of Squares	Df	Mean Square	F	p-value
1	Offers Career advice	Between Groups	4.634	2	2.317	2.28	.122
		Within Groups	26.400	26	1.015		
		Total	31.034	28			
2	Ability to find job that matches your profile	Between Groups	.613	2	.307	1.92	.166
		Within Groups	4.145	26	.159		
		Total	4.759	28			
3	Send email notifications	Between Groups	9.453	2	4.727	10.93	.000
		Within Groups	11.236	26	.432		
		Total	20.690	28			
4	Helps find out your choice job	Between Groups	4.257	2	2.128	1.75	.193
		Within Groups	31.536	26	1.213		
		Total	35.793	28			
5	Facilitates referrals	Between Groups	.312	2	.156	.78	.465
		Within Groups	5.136	26	.198		
		Total	5.448	28			

The result of the analysis in Table 3 shows the computed F-ratio values as 2.28, 1.92, 10.93, 1.75 and .78 at a degrees of freedom of 2 and 26 and p. value as .122, .166, .000, .193 and .465 respectively. The result indicates that the p. values are greater than 0.05 ($p > .05$) except for item three (Sending email notifications). This implies that the result is not significant except for item number three being “Sending email notifications”. Therefore, the null hypothesis which states that there is no significant mean difference in the responses of Lecturers in the use of LinkedIn muse for Collaborative Learning among Educational Technology Lecturers in Cross River State Tertiary Institutions is upheld, except for sending email notifications as it was significant.

Hypothesis 2

There is no significant mean difference in the responses of Lecturers in the use of LinkedIn ‘News Feed’ for Collaborative Learning among Educational Technology Lecturers in Cross River State Tertiary Institutions

Table 4: Summary of Analysis of Variance (ANOVA) responses of Lecturers in the use of LinkedIn News Feed and Collaborative Learning among Educational Technology Lecturers in Cross River State Tertiary Institution

SN	Statement		Sum of Squares	Df	Mean Square	F	p-value
6	It updates one's profile	Between Groups	1.668	2	.834	5.25	.012
		Within Groups	4.125	26	.159		
		Total		28			
			5.793				
7	Showcases and advertises members	Between Groups	.953	2	.477	3.26	.055
		Within Groups	3.806	26	.146		
		Total		28			
			4.759				
8	Offers connections and networking	Between Groups	2.411	2	1.205	3.00	.067
		Within Groups	10.417	26	.401		
		Total		28			
			12.828				
9	Showcases projects worked on	Between Groups	4.404	2	2.202	1.82	.181
		Within Groups	31.389	26	1.207		
		Total		28			
			35.793				
10	Recommends Users	Between Groups	1.001	2	.501	1.92	.167
		Within Groups	6.792	26	.261		
		Total		28			
			7.793				

The result of the analysis in Table 4 shows the computed F-ratio values as 5.25, 3.26, 3.00, 1.82 and 1.92 a degrees of freedom of 2 and 26 and p. value as .012, .055, .067, .181 and .167 respectively. The result indicates that the p. values are greater than 0.05 ($p > .05$) except for item one (updating one's profile. This implies that the result is no significant except for item number one being "updating one's profile". Therefore, the null hypothesis which states that, there is no significant mean difference in the responses of Lecturers in the use of LinkedIn muse for Collaborative Learning among Educational Technology Lecturers in Cross River State Tertiary Institutions is uphold, except for updating one's profile as it was significant

Findings of the Study

The following were the findings of the study

- i. LinkedIn 'Muse' is rarely used for Collaborative Learning among Educational Technology Lecturers in Cross River State Tertiary Institutions.
- ii. LinkedIn 'News Feed' is rarely used for Collaborative Learning among Educational Technology Lecturers in Cross River State Tertiary Institutions.

- iii. There is no significant mean difference in the responses of Lecturers in the use of LinkedIn 'Muse' for Collaborative Learning among Educational Technology Lecturers in Cross River State Tertiary Institutions.
- iv. There is no significant mean difference in the responses of Lecturers in the use of LinkedIn 'News Feed' for Collaborative Learning among Educational Technology Lecturers in Cross River State Tertiary Institutions.

Discussion of findings

The finding of the result further revealed that apart from Sending email notifications there is no significant mean difference in the responses of Lecturers in the use of LinkedIn 'Muse' for Collaborative Learning among Educational Technology Lecturers in Cross River State Tertiary Institutions. This implies that LinkedIn 'Muse' is rarely used for Collaborative Learning. This finding supports the findings of Voyce (2017), who found that lecturer's most popular social media tool for collaborative learning is You-Tube (M =3.65, SD = 1.33). They also used Facebook (M=2.52, SD=1.42) and Whatsapp (M=2.40, SD =1.68) but were unlikely to use LinkedIn (with mean scores below 1.5, SD = 0.86).

The finding of the result also revealed that apart from updating one's profile there is no significant mean difference in the responses of Lecturers in the use of LinkedIn 'News Feed' for Collaborative Learning among Educational Technology Lecturers in Cross River State Tertiary Institutions. This is because lecturers do not make use of the new technology for effective learning' This finding supports the findings of Moran, Seaman and Tinti-Kane (2011) who found that the two social media sites most frequently used for collaborative learning were You-Tube (moderate level of agreement $x = 3.13$, SD. =2. 17), Facebook (moderate level; $x = 2.97$, SD. =2.09), while LinkedIn was the lowest used media for collaborative learning with $x = 0.94$, SD. = 1.09).

Conclusion

LinkedIn technology provides opportunities for constructivism approach for collaborative learning. By familiarizing lecturers with LinkedIn and encouraging them to create strong professional profiles. It can help them increase their value and demand and grow their value and demand and grow their networks, which is a must in today's competitive learning environment.

Recommendations

1. Lecturers should upgrade and improve on their collaborative approaches to be in tune with modern trends so as to increase propensity in terms of technology utilization in all instructional setting.
2. Workshops, conferences, symposiums and seminars should be organized to train educational technology lecturers on how to utilize technologies in teaching and research

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