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## **PERCEPTION OF WORKING ONLINE VERSUS OFFLINE AMONG ACADEMIC PROFESSIONALS**

*Research Article*

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### Abstract

COVID- 2019 is a challenge for the survival of humans and the society. Business organizations are facing the worst hit due to continuous lockdown. Education institutions and the universities are facing a tough time to balance teaching-learning effectiveness. Many education institutions have adopted online technology with optimum utilization of available resources; others face a tough time for survival. This study aims at understanding teachers' perception towards offline and online teaching. 480 academic professionals were selected based on simple random sampling techniques. Paired sample T test and One-way ANOVA is used to study and find out the difference in the perception of working online and offline among academic professionals. The study finds significant differences in teachers' perception of offline and online teaching among the academic professionals.

*Keywords:* Working Online, Working Offline, Teaching, Academic Profession

### 1. Introduction

The COVID-2019 pandemic has infected more than 13,070,097 people around the world resulting in more than 572,411 deaths as on 14<sup>th</sup> July 2020. It is estimated that more than 40 – 70 percent of the world population will be infected with this deadly viral disease. The disease pushed the world's economy into danger, affecting production, supply, consumption and job market. Both local and multinational business establishments have collapsed, putting the whole world into social, medical and economic crisis. This pandemic disease locked down many countries, every government is struggling to control the further spread of diseases by locking down the cities and states to restrict the movement of people. Many business organizations have locked down, closed their business to safeguard the health of their employees. Production sector, daily-wage laborers, and the small vendors are the worst hit among all other business sectors. In pursuit of meeting the financial goals, many companies have instructed the employees to work from home. Software companies, service organizations which are automated easily meet the target and business objectives working from home.

Education Institutions in India are the worst victims of COVID – 2019. India is locked down in the mid of March, by which many schools and colleges are in the race of completing the syllabus, preparing for semester examinations, practical sessions etc. As schools and colleges are not exempted from lockdown, the education sector is facing a very challenging situation. Many schools and colleges are not open for online teaching-evaluation as they have limited resources and infrastructure to face the challenge. Completion of syllabus, conducting examination and announcing results seems impossible at this condition. A few schools, colleges and universities are highly innovative with ICT enabled campuses and are overcoming the challenges easily. Some universities, autonomous colleges and the schools have adopted

online technology to reach out to the students by introducing online classes, online assignment submission, online exams, and online admission process and so on, which may balance the institutional objectives.

It may be difficult for many teachers and students to cope with the online classrooms, classes, assignments and exams etc. A sudden shift from offline to online is a factor of resistance for many among the teaching fraternity. Technology, method of teaching, and personal space are the major issues that academic professionals may face while they teach online. This research focuses on understanding the perception of academic professionals towards working both offline and online. Further, the research also aims at identifying the differences between working offline and online among academic professionals. The study also suggests various measures, innovative techniques that can be adopted by the education institutions and the teachers to successfully meet the challenges in the education sector.

## 2. Literature Review

Working offline is a common process in the production and service industry (Björn, C., 2017). The definition of work online differs from industry to industry. In computer technology and telecommunication offline refers to working in disconnected mode (Gunter, B., et al, 2002; Sade-Beck, L., 2004; Bobology). In the education sector offline refers to ‘a mode and method which is programme or course content is delivered through traditional classroom interaction’ (Xiao, J., et al. 2019; Barindra, D., 2018). An offline teaching involves the physical presence of teachers and the students in a classroom or designated area (Xiao, J., et al. 2019). An effective learning outcome needs a specific learning environment (Machumu, H et al., 2018). A teacher’s personal behavior, situational engagement, and instructional design (Thijs, J., & Verkuyten, M., 2009) plays a major role in offline teaching. Researchers believe that emotional involvement, behavioural and cognitive learning is possible only in offline teaching (Fredricks, J. A. et al, 2004) that has a major impact on the learning process. Offline teaching is a large platform for discussion, debate, activities and peer to peer contact (Virginia, G., 2017) that makes students effectively involved in the learning process (Akan, D., & Basar, M., 2013). A teacher who inculcates effective classroom strategy leads to professional development of students (Akan, D., & Basar, M., 2013). An efficient offline teaching promotes collaborative learning, enhances critical thinking skills and stimulates student’s personality (Frazier, S., & Brown, H. D., 2001).

Researchers found that working offline has major impact on personal, social and academic development of working professionals (Titopoulou, M., 2017). It is because; academicians believe that working offline develops face to face communication (Lee, P. S., 2010), strengthens peer to peer interaction, quick solution to personal and professional issues, direct communication with the supervisors and the subordinates and so on (Pettersen, L., 2016; Snow, E., 2007). Offline offers a mandate work structure where they are connected, observed and responsible for multi-tasks, so that job doesn’t become monotonous (Appel-Meulenbroek, R. 2011). Offline also offers larger scope for experiment and enhancement of skill and knowledge (Peng, M. et al, 2018). An academician adds self esteem to the job, improves social contact, and brings flexibility in managing both personal and professional life (Titopoulou, M., 2017). Offline boosts teamwork, facilitates students-interaction, establishes human touch, and results in effective teaching-learning evaluation (Pettersen, L., 2016). However it is observed that, offline job is tougher and more challenging than online.

Work Online among academicians is a recent trend in the education sector (Balyer, A., & Öz, O. 2018). Development of information and communication technology has broadened scope for adopting an online working environment. The students feel comfort as online classes are convenient and flexible, improving the technical skills of both teachers and students (Tuan,

N. 2015). Many universities and colleges started investing heavily in online teaching (Appanna, S. 2008). It is because; traditional teaching-learning is criticized for encouraging passive learning and not promoting critical thinking among students. (Banathy, B. H. 2008; Hannum, W.H. & Briggs, L.J. 1982).. Through online technology students across the world can connect with a teacher in a single point of time. Internet technology became cheaper, simpler and compact with a large quantity of repository and learning resources (Milrad, M. 1991). Today students are becoming smart and highly technology oriented, pushing the teachers to adopt innovative technology in teaching (Pei, L., & Wu, H. 2019). However many teachers opt out online teaching as they don't risk time in learning new technology. Many teachers resist adopting online teaching as they cannot exercise control over students (Webb, P. T. 2002). Conducting practical sessions is technically impossible through online technology (Maeko, M., & Makgato, M. 2014). Technical glitch, lack of immediate support to encounter technical problems ((Pei, L., & Wu, H. 2019), and incomplete communication are the major issues that hinder teachers to use offline teaching.

Many teachers believe that working online helps them to prioritize the tasks. Online teaching helps them to participate in social activities, affords the level of flexibility, work-life balance and teaches special skills (Graham, A. D. 2019). It requires technical knowledge, encourages creative teaching skill to deal with the audience. Studies found that working online creates communication gaps between colleagues and management (Pei, L., & Wu, H. 2019). There is huge scope for material sharing, more time for preparation, and effective evaluation. Many students have a tendency to open up while they are in virtual learning.

Adopting online or offline technology in teaching has been a discussion for many decades. Education whether has been taught online or face-to-face is dependent on the quality of instruction and the environment (Robert M. Bernard et al, 2004). There are different opinions among the educationalists about implementing online technology in teaching (Akan, D., & Basar, M. 2007; Peng, M. et al, 2018; Pei, L., & Wu, H. 2019). Online teaching may save time only when an academician is able to possess strong technical knowledge and design systematic lesson plans. Technology plays a key role in online teaching (Appanna, S. 2008). Studies also found that the time that an academician spends on online may be lesser, unlike formal classroom a virtual presentation definitely cannot deliver effective lecture (Poonam, V. 2013). Online gives larger scope for innovative methods in reaching the students; however the impression that a classroom environment creates is way different (Pei, L., & Wu, H. 2019). It is the offline work given to an academician to understand the needs and expectations of students and plan the lesson accordingly.

### **3. Research Design**

The design of the study is descriptive in nature. Descriptive research is a fact-finding investigation with adequate interpretation. It is designed to gather descriptive information and provides information for formulating sophisticated studies.

#### **3.1. Problem Statement**

Teaching is a profession that relies on both traditional and modern approach. Whatever the modern techniques cannot replace a teacher. Various studies focused on the issues and challenges associated with online and offline learning among the students. However, perception of academic professionals pertaining to online and offline teaching is a new area of study.

#### **3.2. Scope of the Study**

The study focused on academic institutions such as colleges and universities in Karnataka because it is the responsibility of all the higher educational institutions to adapt to the changing

scenario of the working pattern due to unpredictable situations. At the same time it is also essential to understand the point of academic professionals about changing working patterns and how it's going to be useful in their personal development, effectiveness of their teaching and use of technology while working online versus offline.

### 3.3. Objectives

The main objective is to study the perception of working online and offline among academic professionals and to find out is there any difference in the perception of working online and offline among academic professionals.

### 3.4. Sampling Technique

All the academic professionals who are working in colleges and universities are constituted as a population. Among the population, 480 academic professionals were selected based on simple random sampling techniques. Van Dessel sample size calculation is adopted to decide on sample size.

### 3.5. Operational Definition

#### 3.5.1. Academic Professionals

In the current study Academic Professionals is defined as, “faculty members who are working in various colleges and universities”.

### 3.6. Statistical Tool

The structured questionnaire is used to identify the perception of working offline and online among academic professionals.

### 3.7. Inclusion Criteria

Survey was conducted among faculty members to understand their perception of working online and offline. Faculty members play a major role in overall growth of students and institutions through their knowledge on subject, research work and other administrative tasks of the institutions.

### 3.8. Data Analysis Techniques

Paired sample T test and One-way ANOVA is used to study and find out the difference in the perception of working online and offline among academic professionals.

## 4. Hypotheses

$H_0$  There is no difference in the perception between working online and working offline among academic profession with reference to Personal Development

$H_1$  There is a difference in the perception between working online and working offline among academic profession with reference to Personal Development

$H_0$  There is no difference in the perception between working online and working offline among academic profession with reference to Use of Technology

$H_1$  There is a difference in the perception between working online and working offline among academic profession with reference to Use of Technology

$H_0$  There is no difference in the perception between working online and working offline among academic profession with reference to teaching effectiveness

$H_1$  There is a difference in the perception between working online and working offline among academic profession with reference to teaching effectiveness

## 5. Findings and Suggestions

Table 1. Difference of Perception of Working Online and Offline among Academic Professionals

Paired Samples Test									
		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Personal Development Online Working	-1.09375	10.42528	.47585	-2.02875	-.15875	-2.299	479	.022
	Personal Development-Offline Working								
Pair 2	Technology-Online Working	.90625	5.50778	.25139	.41228	1.40022	3.605	479	.000
	Technology -Offline Working								
Pair 3	Teaching Effectiveness -Online Working	.31250	9.20687	.42023	-.51323	1.13823	.744	479	.457
	Teaching Effectiveness -Offline Working								

From the above table it can be found that, there is a statistical difference ( $p$  value  $<0.05$ ) between perception of working online and offline among academic professionals with reference to ( $p<.022$ ) personal development and ( $p<.000$ ) use of technology. Hence alternate hypothesis accepted, and null hypothesis is rejected. It means there is a difference between perception of working online and offline among academic professionals with respect to their personal development and use of technology. But there is no statistical difference ( $p$  value  $>0.05$ ) between perception of working online and offline among academic professionals with reference to ( $p>.000$ ) teaching effectiveness. Hence null hypothesis accepted, and alternate hypothesis is rejected. It means there is no difference between the perception of working online and offline among academic professionals with respect to their teaching effectiveness.

5.1. Personal Development of Academic Professionals

Table 2: Perception among different Designation groups of Academic Professionals

ANOVA						
		Sum of Squares	Df	Mean Square	F	Sig.
Personal Development - Online Working	Between Groups	646.725	2	323.363	4.289	.014
	Within Groups	35966.400	477	75.401		
	Total	36613.125	479			
Personal Development - Offline Working	Between Groups	2256.931	2	1128.466	12.820	.000
	Within Groups	41988.850	477	88.027		
	Total	44245.781	479			

There is a statistically significant difference between designation groups as determined by one-way ANOVA ( $F(2,477) = 4.289, p = .014$ ), ( $F(2,477) = 12.820, p = .000$ ). Hence there is a difference in the perception of Assistant Professors, Associate Professors and Professors with respect to their personal development when they work online and offline.

Table 3: Perception among Gender groups of Academic Professionals

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Personal Development - Online Working	Between Groups	4654.016	1	4654.016	69.608	.000
	Within Groups	31959.109	478	66.860		
	Total	36613.125	479			
Personal Development - Offline Working	Between Groups	14.364	1	14.364	.155	.694
	Within Groups	44231.417	478	92.534		
	Total	44245.781	479			

There is a statistically significant difference between gender groups as determined by one-way ANOVA ( $F(1,478) = 69.608, p = .000$ ). Hence there is a difference in the perception of

male and female professors with respect to their personal development when they work online. There is no statistical difference between groups as determined by one-way ANOVA ( $F(1,478) = .155, p = .694$ ). Hence there is no difference in the perception of male and female professors with respect to their personal development when they work offline

Table 4: Perception among different Age groups of Academic Professionals

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Personal Development - Online Working	Between Groups	2178.554	3	726.185	10.038	.000
	Within Groups	34434.571	476	72.342		
	Total	36613.125	479			
Personal development – Offline Working	Between Groups	3352.638	3	1117.546	13.008	.000
	Within Groups	40893.143	476	85.910		
	Total	44245.781	479			

There is a statistically significant difference between age groups as determined by one-way ANOVA ( $F(3,476) = 10.038, p = .000$ ), ( $F(3,476) = 13.008, p = .000$ ). Hence there is a difference in the perception of different age group of professors with respect to their personal development when they work online and offline

## 5.2. Perception of Use of Technology among Academic Professionals

Table 5: Perception among different Designation groups of Academic Professionals

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Use of Technology - Online Working	Between Groups	151.875	2	75.938	4.322	.014
	Within Groups	8381.250	477	17.571		
	Total	8533.125	479			
Use of Technology - Offline Working	Between Groups	756.131	2	378.066	22.128	.000
	Within Groups	8149.650	477	17.085		
	Total	8905.781	479			

There is a statistically significant difference between designation groups as determined by one-way ANOVA ( $F(2,477) = 4.322, p = .014$ ), ( $F(2,477) = 22.128, p = .000$ ). Hence there is a difference in the perception of Assistant Professors, Associate Professors and Professors with respect to their use of technology when they work online and offline.



Table 6: Perception among Gender groups of Academic Professionals

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Use of Technology- Online Working	Between Groups	625.271	1	625.271	37.795	.000
	Within Groups	7907.854	478	16.544		
	Total	8533.125	479			
Use of Technology- Offline Working	Between Groups	87.725	1	87.725	4.755	.030
	Within Groups	8818.057	478	18.448		
	Total	8905.781	479			

There is a statistically significant difference between gender groups as determined by one-way ANOVA ( $F(1,478) = 37.795, p = .000$ ), ( $F(1,478) = 4.755, p = .030$ ). Hence there is a difference in the perception of male and female professors with respect to their use of technology when they work online and offline.

Table 7: Perception among different Age groups of Academic Professionals

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Use of Technology - Online Working	Between Groups	1067.696	3	355.899	22.692	.000
	Within Groups	7465.429	476	15.684		
	Total	8533.125	479			
Use of Technology - Offline Working	Between Groups	972.924	3	324.308	19.460	.000
	Within Groups	7932.857	476	16.666		
	Total	8905.781	479			

There is a statistically significant difference between age groups as determined by one-way ANOVA ( $F(3,476) = 22.692, p = .000$ ), ( $F(3,476) = 19.460, p = .000$ ). Hence there is a difference in the perception of different age group of professors with respect to their use of technology when they work online and offline

### 5.3. Perception of Teaching Effectiveness among Academic Professionals

Table 8: Perception among different Designation groups of Academic Professionals

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Teaching Effectiveness-Online Working	Between Groups	2083.725	2	1041.863	14.487	.000
	Within Groups	34304.400	477	71.917		
	Total	36388.125	479			
Teaching Effectiveness-Offline Working	Between Groups	3965.900	2	1982.950	26.981	.000
	Within Groups	35056.600	477	73.494		
	Total	39022.500	479			

There is a statistically significant difference between designation groups as determined by one-way ANOVA ( $F(2,477) = 14.487, p = .000$ ), ( $F(2,477) = 26.981, p = .000$ ). Hence there is a difference in the perception of Assistant Professors, Associate Professors and Professors with respect to their effectiveness of teaching when they work online and offline.

Table 9: Perception among Gender groups of Academic Professionals

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Teaching Effectiveness-Online Working	Between Groups	485.898	1	485.898	6.469	.011
	Within Groups	35902.227	478	75.109		
	Total	36388.125	479			
Teaching Effectiveness-Offline Working	Between Groups	8.775	1	8.775	.108	.743
	Within Groups	39013.725	478	81.619		
	Total	39022.500	479			

There is a statistically significant difference between gender groups as determined by one-way ANOVA ( $F(1,478) = 6.469, p = .011$ ). Hence there is a difference in the perception of

male and female professors with respect to their effectiveness of teaching when they work online. There is no statistical difference between groups as determined by one-way ANOVA ( $F(1,478) = .108, p = .743$ ). Hence there is no difference in the perception of male and female professors with respect to their effectiveness of teaching when they work offline

*Table 10: Perception among different Age groups of Academic Professionals*

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Teaching Effectiveness-Online Working	Between Groups	1906.982	3	635.661	8.775	.000
	Within Groups	34481.143	476	72.439		
	Total	36388.125	479			
Teaching Effectiveness-Offline Working	Between Groups	4872.214	3	1624.071	22.637	.000
	Within Groups	34150.286	476	71.744		
	Total	39022.500	479			

There is a statistically significant difference between age groups as determined by one-way ANOVA ( $F(3,476) = 8.775, p = .000$ ), ( $F(3,476) = 22.637, p = .000$ ). Hence there is a difference in the perception of different age group of professors with respect to their effectiveness of teaching when they work online and offline.

**7. Conclusion and Recommendations**

Technology and education are inseparable. Modern education institutions are highly focused into classroom techniques of teaching. COVID – 2019 is the right time for the teachers and the education institutions to introspect their stand in technology application and also to interrogate their capability to handle the critical situations. A stable education institution should have the ability to prepare the teachers in handling both offline and online technology to boost teachers - student’s participation in effective learning programs.

Technology plays a crucial role in online teaching. Teachers and institutions should update the technology in order to constitute an effective teaching pedagogy. Designation is a determinant factor in online and offline teaching. Many teachers at the professor level need technical skill oriented training for easy flow of online teaching. Age is the factor that constraints adopting innovative technology among working professionals. Academic professionals should wisely choose the technology that suits both personal and professional requirements. Eventually online technology will play a crucial role in future education; hence the education institutions and the universities upgrade their campus with advanced online classroom infrastructure. Education institutions must invest in in-depth research in developing innovative technology for practical learning and transparency in online examination. Virtual classrooms, personalized cloud technology for teachers and students, mobile applications and sophisticated monitoring systems should be adopted to succeed the competition. Institutions

and teachers must adopt collaborative learning, update with technology training programmes and develop technology oriented communication skills. Finally, work-life balance, inculcating ethical practices should be the major inclusion of online teaching technology.

### **8. Limitations and scope for further studies**

The study is confined to the faculty members of selected colleges and universities of Karnataka. 480 respondents from various institutions were selected for the study. There is larger scope for further studies pertaining to the problems, challenges that the academic professionals face while balancing the online and offline academic life.

### **9. Conflict of Interest**

Authors declare that there is no conflict of interest.

### **10. Ethics Committee Approval**

Authors confirm that the research paper doesn't need ethics committee approval according to the research integrity rules in the country,

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