

# A COMPARATIVE STUDY OF INNOVATION IN EDUCATION : ACEMEDICIANS' PERSPECTIVE

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## ABSTRACT

*Innovation has been a topic of considerable interest in the education sector for some time. This paper presents a systemic discussion of educational innovations in gujarat, identify the new initiative, and outline potential directions for effective innovations. This study conclude that government acemedicians have the more positive opinion regarding their university's innovation regarding education compare to the private university's acemedicians. Male and female teaches have the almost equal mean regarding innovation in curriculum activities. Where In ICT and Extra-curriculum, Male acemedician have high positive perception regarding innovation compare to the female acemedicians.*

## INTRODUCTION

Education, being a social organization serving the necessities of society, is imperative for society to survive and flourish. It ought to be far reaching, reasonable, and magnificent, as well as must persistently develop to address the difficulties of the quick changing and unusual globalized world. This advancement must be foundational, steady, and adaptable; thusly, school acemedicians, college professors, administrators, researchers, and policy makers are relied upon to innovate the theory and practice of teaching and learning, and in addition every single other part of this perplexing association to guarantee quality arrangement of all students to life and work. Certainly, effective innovation is dependent upon the individual imagination, knowledge, abilities and talents being nurtured and developed, in big component, through training. Education can be regarded as a sector which can be resistant to change, while at the same time it faces a crisis of efficiency and effectiveness. Innovation may help enhance the quality of training, in addition to offer more “bang for the money” in times during the budget pressures and the need that is increasing.

### Why innovate?

Innovation in education is just a problem that is very contentious. To match the pace with the rapid world development, it is crucial to create those good modifications and innovations that deliver to more intellect head that will face crisis of efficiency and effectiveness. The view of bringing innovation would be to create:

- Social and financial challenges to raise achievement levels and also to guarantee greater equity of results for many students;
- Alterations in work, social and family life
- Rapidly advancing technologies;
- The need certainly to inspire and engage students.

### **Footing of innovation in India**

Educational innovation in India ought to be viewed as one element of a multi-dimensional effort for the improvement of Indian life since the achievement of independence in 1947. It is extremely complex task to convert an economically underdeveloped traditional society, which has been under, colonial rule for a long time, into a self-reliant and modern nation. The administrative structures and financial procedures, passed down from the colonial government are geared to maintaining the status quo, and they stubbornly defy attempts at injecting into them any degree of flexibility or dynamism. The hierarchy-bound colonial administrative practices uphold authoritarianism and severely suppress participatory decision making. Promotion of democratic efforts and the utilizing of available resources for developmental purposes witness extremely little scale within this inflexible 'steel-frame', constructed it seems for exactly the opposite purpose. In such a scenario, introducing innovation presents, a gnarled problem.

A critical evaluation of the education system in India began, with the appointment of the University Education Commission in 1948, and proceeded when the Secondary Education Commission was appointed in 1954. Their reports stimulated some innovative effort in higher and secondary education, and in 1964: the Indian Education Commission was appointed to make a detailed report of the entire education system. The report stressed the need for a complete improvement of the education system for making it more responsive to face the challenges of the country's socio-economic development. Education can be seen as a significant element for modernization. The significance can be judged from the fact that for the continual economic development, all modernized societies look upon the unification and universalization of education. With the increasing population, it is expected that India will have 47 million surplus people falling under working age group by 2020. Hence it creates a huge necessity for upgradation of the education system. Aggressive investment or subsidized policies, government is leaving no stone unturned for enabling education system reach pan India

### **Innovation in education: Gujarat perspective**

The Gujarat Government have implemented massive reforms in the field of Education The initiatives of government play a vital role in engaging students to optimazically satisfy them. Considering the current demand of the market, Gujarat Government had brought out various innovative programs in the past few

years, viz the formation of Knowledge Consortium of Gujarat (KCG), Society for Creation of Opportunity through Proficiency in English (SCOPE), Gujarat Education Innovation Commission (GEIC), Gujarat Knowledge Society (GKS).

### **SCOPE**

World being a global market now, it is very important for youngsters to be proficient in communication skill. As English is one of the most popularly used languages across the globe, government, realizing its importance have started an innovative program known as SCOPE (Society for Creation of Opportunity through Proficiency in English) in 2007. It aims to improve English language proficiency among youngsters so as to meet the global demand.

### **GEIC**

Gujarat Educational Innovations Commission was established in February 2009 to promote conception, experimentation and implementation of Educational innovations in the State of Gujarat. The main of GEIC is to ensure that there exist consistent efforts to bring innovations in the education sector.

### **GKS**

There is a big space in the here and now day education system and also the needs of the task market. The education system does not have and does not encompass the sector demands and also topic that are relevantly needed to meet today's job requirements. The system likewise lacks upgradation of program module and also useful training to master requirements of the job globe. This is among the significant reasons self-confidence of the educated youth and also the unemployed is seriously dented. In order to conquer this scenario, Government of Gujarat thought of an advanced action to connect the space between needs of educational system as well as industries. Below, particularly customized short term programs are prepared that could be conveniently given to the common guy at a small rate. To carry out and also take these specially tailored programs to every edge of the state of Gujarat, the Gujarat Knowledge Society is set up. Gujarat Knowledge Society intends to empower the young people for accessing better employment possibility in the age of expertise based economic situation.

### **KCG**

KCG on its own is an innovative step taken by Gujarat government to collaborate and disseminate knowledge hub across the world under one roof. It intends to provide a robust system for the comprehensive sharing as well as circulation of expertise throughout all stakeholders of education in basic and higher education specifically and to attach all colleges, universities, study organizations and also collections of the

State with national as well as international knowledge networks. For accomplishing the same, KCG has initiated three programmes which leads to excellence.

- Saptadhara
- Sandhan
- Udisha

### **SAPTADHARA**

There was a need that the institution of higher learnings across Gujarat, concentrate on numerous areas of education and learning, art and knowledge for the manifold progression of the young people. For the same, SAPTADHARA was introduced by KCG which concentrate on overall development of students. Hence, they segmented the activities that focused on particular areas. These areas of focus are known as Band /Cluster /Spectrum /Continuum/ Symphony of Activities (Dharas):

- a. Knowledge Band (Gyan Dhara)
- b. Creative Expression Band (Sarjanatmak Abhivyakti Dhara)
- c. Fine Arts Band (Rang, Kala, Kaushalya Dhara)
- d. Theatre Band (Natya Dhara)
- e. Music and Dance Band (Geet, Sangeet, Nrutya Dhara)
- f. Yoga and Sports Band (Vyayam, Yog, Khel-kud Dhara)
- g. Community/Social Service Band (Samudaya Seva Dhara)

### **SANDHAN**

The entire world today has entered a new era of modern technology led high quality education and learning. Modern technology has today become an essential component of education in the western globe. A similar fad is additionally seen in India. The Govt. of Gujarat has recognized the have to allow educators in college to make optimum usage of ICT in their class, making it possible for all the students of higher education in Gujarat to have access to talks delivered by eminent academicians from throughout the state, nation and also from abroad all at as soon as by leveraging technology ideally.

### **UDISHA**

There is a need for education and learning to develop a talent pool which can be quickly soaked up in different markets that will certainly take the nation to higher elevations. To user interface academia with industries as well as bridge the void in between the demand as well as supply of human resources, government of Gujarat created ingenious program named UDISHA which offer students the best platform to

begin an occupation with a company ground and offer training for specific ability that assistance in leveraging the expanding service industries such as financial and also financial solutions, insurance policies as well as telecommunication.

## LITERATURE REVIEW

“Innovation resembles mutation, the biological process that keeps species evolving so they can better compete for survival” (Hoffman and Holzhter, 2012, p. 3)<sup>1</sup>. Innovation, therefore, is to be regarded as an instrument of necessary and positive change. Any human activity (e.g. industrial, business, or educational) needs constant innovation to remain sustainable.

Editors of the book *Reinventing Higher Education: The Promise of Innovation*, Ben Wildavsky, Andrew Kelly, and Kevin Carey write, “The higher education system also betrays an innovation deficit in another way: a steady decline in productivity driven by a combination of static or declining output paired with skyrocketing prices (Wildavsky et al., 2012, p. 3).<sup>2</sup> Wigfield (1994)<sup>3</sup>; Wigfield and Eccles (2000)<sup>4</sup> proposed an expectancy-value model of motivation. The theory is used for understanding and predicting people’s behaviour in the process of adopting innovations. Expectancy-value theory suggests that person’s decision to do a particular task depends on the belief that there are advantages in executing the task and belief that they can succeed. In other words, the expectancy of success and perceived value must be high. Based on the work of Wozney, Venkatesh and Abrami (2006)<sup>5</sup>, expectancy-value theory is adopted to examine students’ understandings in the usage of ICT in learning. Inning accordance with this concept, person’s perceived value and expectancy of success identify their intent to perform a job. Simply puts, students are most likely to make use of ICT in learning if the perceived worth and also expectancy of success of the development are high as well as if these values are perceived to supply even more than the perceived costs of cutting-edge use ICT. Davis and Tearle (1999)<sup>6</sup> ICTs have he possible to innovate, increase, enrich, and deepen abilities, to motivate and also involve students, to assist associate college experience to work techniques, develop financial stability for tomorrow’s workers, along with enhancing training as well as helping colleges change.

<sup>1</sup> Hoffman, A. and Holzhter, J. (2012), “The evolution of higher education: innovation as natural selection”, in Hoffman, A. and Spangehl, S. (Eds), *Innovation in Higher Education: Igniting the Spark for Success*, American Council on Education, Rowman & Littlefield Publishers Inc., Lanham, MD, pp. 3-15.

<sup>2</sup> Wildavsky, B., Kelly, A. and Carey, K. (Eds) (2012), *Reinventing Higher Education: The Promise of Innovation*, Harvard Education Press, Cambridge, MA.

<sup>3</sup> Wigfield, A. (1994). Expectancy-value theory of achievement motivation: A developmental perspective. *Educational Psychology Review*, 6, 49-78.

<sup>4</sup> Wigfield, A., & Eccles, J.S. (2000). Expectancy-value theory of achievement motivation. *Contemporary Educational Psychology*, 25, 116-119.

<sup>5</sup> Wozney, L., Venkatesh, V., & Abrami, P. C. (2006). Implementing computer technologies: Students’ perceptions and practices. *Journal of Technology and Teacher Education*, 14(1), 173-207.

<sup>6</sup> Davis, N.E., & Tearle, P. (Eds.). (1999). A core curriculum for telematics in teacher training. Available: [www.ex.ac.uk/telematics.T3/corecurr/tteach98.htm](http://www.ex.ac.uk/telematics.T3/corecurr/tteach98.htm)

Hepp, Hinostrroza, Laval and Rehbein (2004)<sup>7</sup> claim in their paper "Technology in Schools: Education, ICT as well as the Knowledge Society" that ICTs have been utilized in education and learning ever because their creation, yet they have not always been enormously existing. Although during that time computers have actually not been totally incorporated in the understanding of conventional subject, the typically accepted unsupported claims that education and learning systems would certainly should prepare people for lifelong learning in an information society boosted interest in ICTs (Pelgrum, W.J., Law, N., 2003)<sup>8</sup>.

ICT boosts the flexibility of shipment of education and learning to ensure that students can access understanding anytime and also from anywhere. It can affect the means students are educated as well as exactly how they find out as now the processes are student driven and also not by acemedicians. This consequently would certainly much better prepare the students for lifelong discovering in addition to boost the top quality of learning. Jointly with geographical adaptability, technology-facilitated educational programs likewise eliminate a lot of the temporal restrictions that face learners with special needs (Moore & Kearsley, 1996)<sup>9</sup>

The findings of Mehus (1932)<sup>10</sup> recommended that the a lot more active students are, the far better they performed academically; both sexes considered in addition to fresher as well as student male students as well as freshman women. Chia (2005)<sup>11</sup> located that the degree of students' ECA participation favorably impacted the number of first job meetings as well as final job offers. Brown-Liburud and Porco (2011)<sup>12</sup> found that undergraduate accounting students, who have participated in ECA, demonstrated higher levels of cognitive moral development.

## RESEARCH METHODOLOGY

Single cross sectional descriptive research design was used for the study. Total 200 samples, 100 acemedicians from government university viz. Gujarat University, Saurashtra University, Bhavnagar University, Hemchandracharya North Gujarat University and Sardar Patel University were selected and 100 acemedicians from private university viz. Rai University, C. U. Shah University, Kadi University, Ganpat University and Ahmedabad University were selected as sample size. The self administer questions was developed for data collection. The research was conducted using non probabilistic quota sampling method.

<sup>7</sup> Hepp, K. P., Hinostrroza, S.E., Laval, M.E., Rehbein, L. F. (2004) "Technology in Schools: Education, ICT and the Knowledge Society" OECD. Available: [www1.worldbank.org/education/pdf/ICT\\_report\\_oct04a.pdf](http://www1.worldbank.org/education/pdf/ICT_report_oct04a.pdf)

<sup>8</sup> Pelgrum, W. J., Law, N. (2003) "ICT in Education around the World: Trends, Problems and Prospects" UNESCO-International Institute for Educational Planning. Available: [www.worldcatlibraries.org/wcpa/ow/02d077080f3210a19afeb4da09e526.html](http://www.worldcatlibraries.org/wcpa/ow/02d077080f3210a19afeb4da09e526.html)

<sup>9</sup> Moore, M. & Kearsley, G. (1996). Distance Education: A Systems View. Belmont, CA: Wadsworth.

<sup>10</sup> Mehus OM (1932). Extracurricular activities and academic achievement. Journal of Educational Sociology, 6(3): 143-149. Published by: American Sociological Association Article DOI: 10.2307/2961561. <http://www.jstor.org/stable/2961561>

<sup>11</sup> Chia, Y. M. (2005). Job offers of multi-national accounting firms: The effects of emotional intelligence, extra-curricular activities, and academic performance. Accounting Education: An International Journal, 14(1), 75-93

<sup>12</sup> Brown-Liburud, H. L. & Porco, B. M. (2011). It's what's outside that counts: Do extracurricular experiences affect the cognitive moral development of undergraduate accounting students? Issues in Accounting Education, 26(2), 439-454

## DATA ANALYSIS

Innovation in the education industry broadly divided into major 3 sections namely, Innovation related to curriculum activity, Use of ICT in the education and innovation regarding extra curriculum activity. Four questions are developed to measure the perception of acemedicians regarding innovation regarding curriculum activity. Majority of the acemedicians believe that “Recent changes in curriculum improve over all learning of students” with the mean of 3.70 followed by “The curriculum is design so as to reduced the gap between academics and industry need” (3.66) and “Current curriculum pattern provides platforms for overall development of students” (3.50).

**Table 1 Descriptive Statistics**

	Mean	Std. Deviation
Recent changes in curriculum evaluates the performance of students accurately	3.4400	.85443
Recent changes in curriculum improve over all learning of students	3.7000	.83275
Current curriculum pattern provides platforms for overall development of students	3.5000	.85654
The curriculum is design so as to reduced the gap between academics and industry need	3.6600	.71199
Communication skill of students gets improves because of ICT	3.6800	.90648
ICT evolves the students as an independent learner	3.4400	.85443
Usage of ICT ensures positive academic performance	3.6600	.84139
Technical skills of students get improved	3.2400	.58662
Students get wide range of learning options	3.3000	1.20718
Innovative programmes of ECA provides opportunity to utilize skill and talent	3.6000	.96157
Innovative ideas of ECA increases students confidence	3.4800	.87947
Innovations in ECA leads to higher levels of cognitive moral development	3.2800	1.15249
Innovations in ECA helps out students to convert their interests and passion into profession	3.2600	.95759

ICT became very important factors which influence the teaching industry. New technological use in teaching makes learning more interesting and effective. Five questions measured on the five point likert scale record the perception of the acemedicians regarding ICT. Majority of the acemedicians are agreed with that “Communication skill of students gets improves because of ICT” and least amount of acemedicians agreed with that “Technical skills of students get improved”. Extra curriculum activities are also important same as the curriculum activities for the development of students. Perception of acemedicians regarding extra curriculum activity measured through four questions. Most of the acemedician believe that “Innovative programmes of ECA provides opportunity to utilize skill and talent” with the mean score of 3.60 and standard deviation of 0.96.

This paper mainly deals with comparison of innovation in education between private and government universities. Average score of curriculum, ICT and extra-curriculum items are taken as the testing variables and university type taken as the grouping variable in the two independent sample T test.

**Table 2 Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Curriculum	Equal variances assumed	.789	.376	6.687	198	.000
	Equal variances not assumed			6.687	197.999	.000
ICT	Equal variances assumed	4.321	.039	4.229	198	.000
	Equal variances not assumed			4.229	194.755	.000
Extra-curriculum	Equal variances assumed	91.187	.000	9.801	198	.000
	Equal variances not assumed			9.801	133.273	.000

Levene's Test for Equality of Variances was carried out to find out the homogeneity of variance and it concludes that ICT and Extra-curriculum have not the equal variance across the both groups as p value for both variables are less than the significant level. Where P value of the Curriculum is greater than 0.05 and it further infer then variance are equal for both groups.

Table 2 shows that P values for Curriculum, ICT and Extra-curriculum are less than 0.05 with t values of 6.687, 4.229, 9.801 and df 198, 194.755, 133.273 respectively. which conclude that there is a significant difference in the mean score of innovation in Curriculum, ICT and Extra-curriculum of Government and private university.

**Table 3 Group Statistics**

Type of University		Mean	Std. Deviation
Curriculum	Government	3.7800	.43415
	Private	3.3700	.43298
ICT	Government	3.6080	.44939
	Private	3.3200	.51168
Extra-curriculum	Government	3.8200	.32968
	Private	2.9900	.78005

Table 3 provides the mean and standard deviation of all the three variables for government and private universities. Table 3 conclude that government acemedicians have the more positive opinion regarding their university's innovation regarding education compare to the private university's acemedicians.

**Table 4 Independent Samples Test**



		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Curriculum	Equal variances assumed	3.129	.078	-.090	198	.929
	Equal variances not assumed			-.086	149.542	.932
ICT	Equal variances assumed	.371	.543	2.140	198	.034
	Equal variances not assumed			2.154	183.320	.033
Extra-curriculum	Equal variances assumed	1.748	.188	2.385	198	.018
	Equal variances not assumed			2.426	188.830	.016

Table 4 provides the Independent sample T test between gender and all three studied variables. In T test average score of all three variables are inserted as the testing variables and gender is inserted as the grouping variable. Levene's Test for Equality of Variances conclude that both gender have the equal variance. P value of the Curriculum is 0.929 with t value of -0.090 and df 198 which is greater than significant level and conclude that male and female acemedicians have the same perception regarding innovation in Curriculum. Where p value of ICT and Extra-curriculum is 0.034 and 0.018 respectively. T test for ICT and Extra-curriculum conclude that average perception score of male and female are different.

**Table 5 Group Statistics**

Gender		Mean	Std. Deviation
Curriculum	Male	3.5714	.54960
	Female	3.5776	.42274
ICT	Male	3.5524	.48458
	Female	3.4000	.50596
Extra-curriculum	Male	3.5476	.67493
	Female	3.3017	.75001

Table 5 provides the mean and standard deviation of all the three variables for male and female acemedicians. Table 5 conclude that Male and female teaches have the almost equal mean regarding innovation in curriculum activities. Where In ICT and Extra-curriculum, Male acemedician have high positive perception regarding innovation compare to the female acemedicians.

## CONCLUSION

This paper conclude that Majority of the acemedicians believe that Recent changes in curriculum improve over all learning of students. They also believed that Communication skill of students gets improves because of ICT and Innovative programmes of ECA provides opportunity to utilize skill and talent. This study further conclude that government acemedicians have the more positive opinion regarding their university's

innovation regarding education compare to the private university's acemedicians. Gender wise comparison conclude that Male and female teaches have the almost equal mean regarding innovation in curriculum activities. Where In ICT and Extra-curriculum, Male acemedician have high positive perception regarding innovation compare to the female acemedicians.

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### QUESTIONNAIRE

Name of University : \_\_\_\_\_

Public

University \_\_\_\_\_ Private University \_\_\_\_\_

Gender : Male \_\_\_\_\_ Female \_\_\_\_\_

#### State your agreement or disagreement related to following statements

SDA=Strongly Disagree , DA=Disagree , N= Neutral , A= Agree , SA=Strongly Agree

Statements Related to curriculum	SDA	DA	N	A	SA
Recent changes in curriculum evaluates the performance of students accurately					
Recent changes in curriculum improve over all learnings of students					
Current curriculum pattern provides platforms for over all development of students					
The curriculum is design so as to reduced the gap between academics and industry need					
<b>Statements Related to ICT</b>					
Communion skill of students gets improves because of ICT					
ICT evolves the students as an independent learner					
Usage of ICT ensures positive academic performance					
Technical skills of students get improved					
Students get wide range of learning options					
<b>Statements Related to extra-curriculum activities (ECA)</b>					
Innovative programmes of ECA provides opportunity to utilise skill and talent					
Innovative ideas of ECA increases students confidence					
Innovations in ECA leads to higher levels of cognitive moral development					
Innovations in ECA helps out students to convert their interests and passion into profession					